THE CYCLOPAEDIA;

OR,

UNIVERSAL DICTIONARY

OF

Arts, Sciences, and Literature.

BY


WITH THE ASSISTANCE OF

EMINENT PROFESSIONAL GENTLEMEN.

ILLUSTRATED WITH NUMEROUS ENGRAVINGS,

BY THE MOST DISTINGUISHED ARTISTS.

IN THIRTY-NINE VOLUMES.

VOL. I.

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1819.
THE Cyclopœdia, which has been the production of the incessant labour of almost twenty years, is now completed, very much to the relief of the Editor's mind, and, as he hopes, to the satisfaction of the Public. To the candid judgment of its numerous readers, the Editor submits the work, assuring them, that, on his part, no pains have been wanting to render it worthy of their approbation. If he had foreseen the time and attention which the compilation and conduct of it required, and the unavoidable anxiety which it has occasioned, he would probably never have undertaken it. But habits of application, and some degree of experience in a work of this nature, disposed him to embark in it, and enabled him to overcome the difficulties that presented themselves to his view in his further progress. He hopes that he may be allowed to say, that an early and long-continued attachment to scientific pursuits, and a desire of serving the cause of Literature and Science, had no inconsiderable influence in directing his views to this object, and encouraging his perseverance in the accomplishment of it. He ought also to acknowledge, that the candour with which his labours, on this as well as on a former similar occasion, were received by the Public, and the expressions of approbation with which they were honoured in the course of sixteen years, afforded a very powerful inducement to unremitting assiduity and exertion. The Proprietors also, who had undertaken this work without any patronage besides that of the Public, and who were advancing large sums towards rendering it worthy of that patronage, were liberal in their co-operation, and in enabling the Editor to procure every kind of assistance, which he might find to be necessary and useful. They employed artists of the first reputation in their respective departments, whose performances have given a peculiar character to this work. The Proprietors and Editor were likewise honoured by connection and acquaintance with persons, eminently distinguished in those branches of science to which they had devoted their talents; and these persons not only consented to be co-adjutors, but to give celebrity to the work by allowing their names to be annexed to it, whilst they were enhancing its importance and value by their contributions. Although the Editor cannot decline availing himself of the reputation which the Cyclopœdia must acquire from the established and well-known character of his associates,
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and with this view presenting their names to the Public, he does not wish to rob them of any portion of fame that belongs to them, in order to enrich himself. Notwithstanding all the assistance which he has received, and which he thus gratefully and respectfully acknowledges, his own responsibility furnishes a large demand on the candour of the Public; nor will those who duly consider, that he has devoted almost twenty years of his life, measured not by fragments of time, but by whole days of twelve or fourteen hours, to the completion of his undertaking, and in so doing impaired his health and constitution, be indisposed to exercise that liberality in their estimate of his labours which he solicits. He is not unapprised of defects and imperfections; and if he were to begin the Cyclopaedia de novo, he could improve it. Science is progressive; and since the commencement of this work, its advances in several departments have not been inconsiderable.

The Editor has endeavoured to watch its steps, and to incorporate in his pages every discovery and improvement that has attended its progress. He now presents his work, in its finished state, at the bar of the Public, anxiously but not timidly waiting a favourable decision. He begs leave, however, to suggest, that he does not consider himself as responsible for the opinions advanced by his co-adjutors in the articles which they have furnished, any more than for those which occur in extracts from printed works. Some of these seem to him to be erroneous; and they are actually controverted and contradicted in other parts of the Cyclopaedia, where the mention of them occurs. As he could not prescribe limits to the articles supplied by his co-adjutors, he could not presume to prohibit a statement of their own sentiments on the subjects of the articles which they contributed. In every case the reader will form his own judgment.

The names of most of his co-adjutors have been already published on the covers of several parts of the work; but after he has again recited them, every reader will be able to assign to each, so well known in the circle of science, the articles of any extent and of principal importance, which he has furnished. Under each head, the arts and sciences being arranged in alphabetical order, will be mentioned the names of those to whom the Editor is indebted for contributions; though in some cases the number is small and the articles are short, whilst in others they are more numerous and more extended. Many of these articles have been considerably enlarged in consequence of the Editor's own researches. His own additions are so incorporated with the communications of his friends, that it would not be easy to distinguish them without a minuteness of detail, which, as he conceives, would be tedious and uninteresting. Agriculture, Dr. Dickson. — Algebra and Analysis, Barlow, Bonnycastle, and Pond. — Anatomy and Physiology,
Abernethy and Lawrence. — *Comparative Anatomy*, Macartney, Lawrence, and Clarke. — *Annuities*, W. Morgan. — *Antiquities*, H. Ellis and Strutt. — *Architecture*, Porden, E. Aikin, P. Nicholson, Dr. Milner, and Webster. — *Astronomy*, Bonnycastle and Pond. — *Astronomical Instruments*, Rev. Dr. Pearson. — *Biography*, Sir J. E. Smith, Dr. Burney, Dr. Malkin, and Dr. T. Rees. — *Botany*, Sir J. E. Smith, Dr. Woodville, Rev. Mr. Wood. — *Canals*, Farey, senior. — *Chemistry*, Aikin, Sylvester, Dalton, Brande, Dr. Mareet, Sir Humphrey Davy, Dr. C. Taylor, and Dr. Davy. — *Conic Sections and Curvilinear Geometry*, Ivory. — *Drawing*, Howard. — *Dynamics*, Cavallo. — *Education*, Dr. Carpenter. — *Electricity*, Cavallo and Cuthbertson. — *Engraving*, Landseer. — *Entomology*, Conchology, and several other articles of *Natural History*, Donovan. — *Exchange, Standard, Coinage*, and *Weight*, Dr. Kelly. — *Blast and Blowing Furnaces*, Mushett. — *Geology*, Koenig, Bakewell. — *Geography*, Tooke, Hinckes. — *Geometry*, Barlow, Ivory. — *Grammar*, Dr. Jones. — *Heraldry*, Sir G. Naylor. — *History*, English, S. Turner and Owen Pugh. — *Horology*, Rev. Dr. Pearson. — *Language*, Dr. Carpenter, Dr. Jones. — *Magnetism*, Cavallo. — *Manufactures*, Duncan, J. Thomson, Parkes, and Farey, junior. — *Mechanics and Machinery*, Cavallo, Farey, junior. — *Medicine*, Dr. Bateman and Dr. Henderson. — *Mental Derangement*, Dr. Haslam. — *Meteorology*, L. Howard, Dalton, and Dickson. — *Midwifery*, Dr. Bland. — *Mineralogy*, Koenig, Bakewell. — *Mining*, Taylor. — *Naval Architecture*, Glover. — *Navigation*, Mackay. — *Music*, Dr. Burney and Farey, senior. — *India Mythology*, Major Moor. — *Mental and Moral Philosophy*, Dr. Carpenter. — *Painting*, Russell, Opie, Ottley, and Phillips. — *Prosody*, H. Parker. — *Sculpture*, Flaxman, P. Hoare, and Bacon. — *Surgery*, Blair, who also furnished the article *Cipher*, and S. Cooper. — *Topography*, Britton. — *Versification*, H. Parker; — and a variety of *Miscellaneous* articles by Joyce, Ellis, Fletcher, Howard, Clarkson, and several other gentlemen, who were occasional contributors, and whose names it is needless to mention. To Mr. S. Bevan and some other literary and scientific friends, the Editor is indebted for the assistance which they have afforded him in suggesting articles that had been omitted, and that have been supplied in the *Addenda*. Dr. Thomas Rees has, towards the close of the work, paid particular attention to the arrangement of the Plates. He has also drawn up a digested catalogue of them, together with an alphabetical index of the subjects which they comprise; and added such explanations, and corrections of references, as appeared to be necessary or desirable, after a minute and careful collation, made in conjunction with the Editor, of every Plate, with the printed letter-press to which it pertained. The Editor and Proprietors of this work are also indebted to
Mr. Donovan, for the General Systematic Arrangement of the Plates of Natural History.

The general plan upon which this work has been conducted, and which was stated in the Advertisement that announced the publication of it, seemed to the Editor, after some experience in this department of literary labour, and after consulting several competent judges, the most suitable to the nature and design of a Scientific Dictionary. Whatever may be the advantage resulting from separate dictionaries appropriate to each particular science, which is the plan of the French Encyclopædia, or from distinct treatises introduced in a dictionary of one alphabet, according to some modern compilations of this kind, the inconvenience and perplexity that attend the multiplication of alphabets, whether they occur in different serieses of volumes, or in the form of an index at the close of each treatise, will furnish an objection against this mode of arrangement, which it will not be easy to obviate. In a work of such magnitude as the French Dictionary, consisting already of between 100 and 200 volumes, and of undetermined extent, the best treatises that have been written, or that may be written, on each subject, may be introduced, and the work itself may be a complete library, and supersede the necessity of recurring to any other. But in a publication of limited compass, such as booksellers may undertake, and the general class of readers purchase, it is hardly possible to combine separate articles, sufficiently instructive, with treatises equally comprehensive and complete. To those who usually consult dictionaries for information, this plan, we are persuaded, is by no means the most eligible. If they wish to extend their knowledge beyond the limits to which a dictionary must necessarily restrict it, they will recur to appropriate treatises for the purpose; and the dictionary should furnish them with the necessary references. A dictionary is intended for communicating knowledge in an easy and expeditious manner; and it is desirable that the several articles should be so full and comprehensive, as to afford sufficient instruction on the subjects to which they relate, without the necessity of recurring to another dictionary, or to an index, for further information. It may be said, indeed, that the sciences are thus mutilated and mangled; and that it is impossible to preserve their unity without discussing each in a separate treatise. We readily allow, that this is an inconvenience, inseparable from the form of a dictionary; but at the same time we think that this may be remedied in a considerable degree by that kind of ramification of the principal subject, which, with suitable references, will lead the reader to subordinate articles, that form, by their mutual connection and dependence, an aggregate or whole, superseding in all common cases the necessity of a distinct treatise. These
references, when judiciously distributed and arranged, will serve, like the index of a book, but much more effectually, to conduct the reader from one subject to another: they will enable him to perceive their relation to each other; and they will direct him how to collect and combine the dispersed parts of any science into one entire and regular system. Each article will afford him, as it were, a distinct lecture; and he may pursue the same course of study by the means now suggested, or vary it as he thinks proper. Upon the whole, the advantage of separate treatises under each head of science, such as the limits of a dictionary will allow, seems to be more imaginary than real; more especially as the want of them may be supplied in the manner that has been mentioned.

In conformity to our proposed plan, it has been our endeavour to give, under each distinct head of science, an historical account of its rise, progress, and present state, concisely and yet as comprehensively as our limits and our sources of information would allow; to refer to those articles in which the discussion of them occurs, and to point out such publications as afford further information. References of this kind are introduced under each separate article, wherever they are thought to be necessary and useful; and thus the reader is able to form his judgment concerning the authorities upon which the compilers of the several articles depend; and if he shall have opportunity or inclination, he may recur to them for himself.

Whilst the Editor and his co-adjutors in this work have availed themselves of the assistance which other similar dictionaries have afforded them, they have not contented themselves with mere transcripts; they have resorted as much as possible to original writers, which they have been enabled to do by the facility of their access to large libraries; and by the citations which they subjoin to the several articles, the Public will judge of the extent of their research, and of the industry and labour which they have bestowed on this compilation. In their account of the arts and manufactures, they have consulted the artisans and manufacturers themselves, and derived from them every kind of information that was likely to conduce to the credit and utility of the work: and this they have not been able to do without incurring a very considerable expense.

Some apology may, perhaps, be thought necessary for the extension of this work beyond the limits first proposed. When it was determined to
introduce biography, as well as geography, topography, and history, upon a larger scale than the Proprietors and Editor had at first intended, principally in compliance with the wishes of intelligent and esteemed subscribers, the enlargement of it became indispensable. To his co-adjutors, whose assistance was highly important, the Editor could not presume to prescribe limits, which would have depreciated the value of the articles which they contributed, and within which, for their own reputation, they would not have consented to be confined, and of course the work would have been deprived of the benefit of their contributions. This circumstance could not fail to occasion an enlargement of the Cyclopaedia; but it was proportionably enhanced in value; and the Editor is satisfied, that the purchasers will not ultimately regret the augmentation of expense. The plates likewise have been multiplied far beyond the original intention of the Proprietors, because new and unthought-of subjects were introduced in the progress of the work; but as these plates constitute a character of excellence peculiar to this Cyclopaedia, it is thought that the circumstance of their being additional embellishments of the work, besides that of their being indispensable as explanatory of the articles to which they refer, will be a sufficient apology for the increase of their number; more especially when it is considered, that the augmented number of plates, as well as the enlargement of the work, have occasioned a diminution of profit to the Proprietors. It would have been more their interest, as well as more gratifying to the Editor, to have compiled a Cyclopaedia in fewer volumes, and to have contented themselves with a smaller number of plates; as in all probability the sale would have been greater, and the sum of money expended upon it would of course have been much less. The Editor must do the booksellers concerned in this Cyclopaedia the justice to say, that they have consented to forego part of the possible profit that might have accrued from it for the sake of its reputation and utility.
CYCLOPAEDIA: OR, A NEW
UNIVERSAL DICTIONARY
OF ARTS and SCIENCES.

A

May be considered, I. as a LETTER; II. as a WORD; and III. as an abbreviation.

I. A, as a letter, or the mark of a vocal found, is the most simple, and that which the dumb are most easily taught to utter.

To pronounce it clearly, we need only open the mouth wider than for any other sound, and then emit the air from our lungs. It is the first letter of the alphabet in all the known languages of the world, except in that of the Ethiopians; in which, according to Ludolfus, it is the thirteenth.

We must seek the origin of this, and the rest of our letters, in the Oriental languages. See Alphabet and Letters.

In the English language, the character A is the mark of three different sounds, which are termed by our grammarians the broad A, the open A, and the slender A.

1. Our broad A, resembles the found marked by the German A, and is found in many of our monosyllables, as all, wall, mall, fall, where it is pronounced as in cause and fault, or as a in low. It is probable that this broad sound was that which our Saxon ancestors expressed by the character A, as it is still, almost uniformly, retained in the rustic pronunciation and northern dialects of our language; as tawt for talk, maun for man, bound for bond, &c.

2. The open A of the English, is not unlike the A of the Italians in adagio, and is the sound marked by this letter in father, rather, &c.

3. The slender found marked by the character A, is peculiar to the English language, and resembles the found of the French e masculine, or of their diphthong ai in pais; perhaps it is a middle found between them, or between the a and e. Such we have in the words place, face, wake, and in all those that terminate in aion; as salvation, preservation, &c.

The sounds of which A is the character in our language, are sometimes short; as in the words glass, grasp, brass, &c. at other times long; as in glaze, graze, &c. Their length is commonly denoted by an immediately subjoined to the a; as in plans, rain, &c. or by an e added at the end of the word; as in plane, crane, &c.

Some contend that there are four, others, that there are five distinct sounds, denoted by the character A in the English language. There are, perhaps, little variations and distinctions in the sounds marked by the character A, as well as by the other vowel letters in our alphabet; but they are so local or arbitrary, or, after all, so nice and subtle, that they entirely escape the notice of foreigners, and are hardly distinguishable by the natives. Those who desire to enter more deeply into the first formation of sounds, and to see the elementary principles of speech treated with philosophical accuracy, will find satisfaction in the ingenious treatises of Wallis and Holder.

In burlesque poetry, the letter A is sometimes added after words; it lengthens them a syllable, without altering their sence; as length, for line, in Dryden, &c. It is sometimes redundant, when prefixed to words, as arise, awake; the same with rise, wake, &c.

In our Calendar, A is the first of the dominical letters which were introduced in imitation of the eight nondinal letters of the Romans, of which the A was one.

II. A is a word. This first simple sound is used in our language to express most of the vehement motions of the soul. We naturally use it on all sudden occasions of admiration, joy, anguish, apprehension of danger, &c. and where the emotion is very great, the A is enforced by adding an aspirate to it, as ab!

It is sometimes a noun; for we say great A and little a; but it is most commonly a definite, or an indefinite article. It is definite, and denotes the number one, as, a man is coming; that is, no more than one. It is also used as an indefinite

Vol. I.
A

Among Logicians, A denotes an universal affirmative proposition; according to the verb,
Affert A, negat E, verum generaliter ambe. See Barbara.
In Algebra A or a, and the first letters of the alphabet, represent known quantities; and the last letters represent quantities that are unknown.

In the prescriptions of Physicians, A, or ë, or ë, denotes equal parts of the ingredients specified, and is a contraction of the preposition æq., which is used in the same sense by medicinal writers in the Greek tongue.

Among Chemists, AAA signifies an amalgam, or the operation of amalgamating.

In Heraldry, the letter A is used as a bearing in arms.

Aa, Peter Vander, in Biography, an eminent bookseller at Leyden, who was living in 1729. He published an atlas of 200 charts compiled after the long voyages from 1346 to 1696. They are not deemed very accurate. They are included in the Galerie Acréable du Monde, in 66 vols. folio.

A continued Graevius's Thesaurus, or an account of the modern Italian writers, in six other volumes, with the Thesaurus Antiquitatum Sicilic.

Aa, in Hydrography, the name of several rivers: one in Welfphalia, which rises near Munster and falls into the river Limb; another, that has its source in the department of Somme, in France, becomes navigable by means of sluices near St. Omer, paffes on to Gravelines, and discharges itself into the English Channel; a third in Livonia, that falls into the gulf of Riga; and a fourth in Switzerland, that rises in Mount Bruning, and falls into the lake Lucerne.

AACH, in Geography, a small town in Germany, in the circle of Suabia and Landgraviate of Nellenburg, near the source of the river Aach, which falls into the lake of Zell. It belongs to the House of Austria. E. long. 9°. N. lat. 47° 55'.

AAARD, Nicholas and Christian, in Biography, two brothers born at Wiburg in Denmark in the beginning of the 17th century. The former is known for his philosophical works and other tracts, particularly his disputations upon Tacitus; the latter for his excellent poetry.

AAGGI-DOGGI, in Geography, a mountain of Amfia in Turkey, on the frontiers of Persia, which is crossed by the Caravans in their way from Constantinople to Iphahan.

AAGH- HOLM, a small island on the coast of Norway, near the mouth of the river Lendoved.

AAHUS, or AHAUSZ, i.e. the house on the Aa, a small town in the circle of Welfphalia, and bishoprick of Munster. It is the capital of the prefecture of Aabos, and has a citadel. E. long. 7° 1'. N. lat. 52° 10'.

AAKAR, a prefecture of the diocese of AARHUS containing 16 parishes.

AAIRKE, a town in the island of Bornholm, which has the privileges of a city, and in which are held the provincial court and the synod. E. long. 14° 56'. N. lat. 55° 15'.

AALBORG, the capital of a diocese of the same name in North Jutland, in Denmark, and a bishop's see. It derives its name from the number of cells that are taken here. This city is large and populous, and next to Copenhagen, the most opulent and best built in the kingdom. It carries on a considerable trade in herring and grain, and has different manufactorys of muckets, pitfols, faddles, and gloves. It has an exchange for merchants; as well as a safe and deep harbour. The population of this diocese amounts to 80,872 persons. E. long. 9° 46'. N. lat. 56° 50'.

AALLEN, or AHELLEN, a free imperial town belonging to the beam of Suabia, and so called from the number of cells which are in that part of the river Kocher that runs
runs through it. This city is Lutheran. It was formerly under the dominion of the kings of Bohemia, and sold to Eberhard, Count of Wirttemberg. The Emperor Charles IV. recovered it, and restored it to the empire in 1360. This, and similar cities that are almost in a ruined state, preserve their franchises and immunities with care. E. long. 9° 56'. N. lat. 48° 48'.

AALEST, or AELEST, Everard, in Biography, a painter, was born at Delft in 1602 and died in 1648. He excelled in fruit pieces, dead game, and armor. His nephew, named William, surpassed his uncle. He was born in 1620 and died in 1679. His pictures are chiefly known in Holland.

AALEST, or AELEST, in Geography, the capital of a county of the same name in the district of Ghent and circle of Burgundy, and lying between the rivers Schelde and Dender. This city lies on the latter of these rivers. E. long. 3° 54'. N. lat. 50° 58'.

AAM, or HAM, is a liquid measure generally used by the Dutch; it contains 128 mingles, each mingle weighing about 36 ounces avoirdupois; and consequently the Am is equal to 143.75 pints of Paris, or to 288 pints of English measure; the Paris pint weighing 31 ounces, and that of England 16 ounces.

AAMA, in Geography, a province of Barbary in Africa, about 15 days' journey from Tunis.

AANSTRE, a small island on the coast of Norway, opposite to Ag-Holm.

AAR, or ARE, in Hydrography, a large river of Switzerland, which has its source in Mount Gritimal in the south of the canton of Bern, and pursuing a circuitous course towards the north-west, passes through the lakes of Brienz and Thun to Berne, and afterwards changing its direction towards the north-east, flows to Solothurn and Brugg, and being joined by the Reufs and Limmat, discharges itself into the Rhine near Waldhut. There is another smaller river of the same name in Westphalia.

AAR, in Geography, the name of a small island in the Baltic.

AARASSUS, in Ancient Geography, a town of Pifidia in Asia, which some have supposed to be the Annius of Ptolemy. Strabo, Geog. tom. ii. p. 855.

AARAW, in Geography, a town and bailiwick in the canton of Bern in Switzerland. E. long. 7° 10'. N. lat. 40° 2'.

AARDENBORG, a small town in Flanders situated on a canal which communicates with the Zwin. It was once a fortress; but its works were totally razed in 1700. E. long. 3° 14'. N. lat. 51° 17'.

AARHUUS, the capital of a diocese of the same name in North Jutland, extending from that of Viborg along the Cattegat, about 15 miles in length and 8 or 9 in breadth. This diocese is extremely fertile, and diversified with woods, bays, and lakes abounding with fish. It is watered by several rivers, the chief of which is the Guden. The town lies in a fine plain between the sea and a lake, from which a stream of water passes through it. It is large and populous, has 6 gates, 2 principal churches, 2 market places, an university, a free school, and a well endowed hospital. It carries on a good trade. The number of inhabitants in this diocese is estimated at 117,942. E. long. 10°. N. lat. 56° 6'.

AARON, in Scripture History, the son of Amram and Jochebed, and the grandson of Levi, was born A. M. 2430, before the Christian era 1574. He was three years older than his brother Moses, and appointed to aid him under the character of his advocate and interpreter, as well as prophet, in his intercourse with Pharaoh, and in the release of the Israelites from their bondage in Egypt. With this view they both went together into Egypt; and after many attempts to overcome the opposition of the Egyptians, and the obstinacy of Pharaoh, they accomplished their object A. M. 2513, ante A. D. 1491. After the Exodus of Israel, and during their peregrination in the wilderness, Aaron and his sons exercised the office of priests by a divine appointment; and as soon as the Tabernacle was built, Aaron was consecrated by Moses with the holy oil, and invested with the pontifical ornaments. When Moses went up to the Mount to receive the law, Aaron, accompanied by the 70 elders, followed him; but during his continuance for 40 days on the Mount, the people became impatient and tumultuous, and Aaron, yielding to their solicitations, melted down their pendants, and the ear-rings of their wives and children, and formed the golden Calf, to which they paid homage. He afterwards humbled himself for this offence, obtained forgiveness, and was continued in the priesthood. In a subsequent period, viz. A. M. 2515, Korah aspired to the prieftly office, and Dathan and Abiraun claimed a share with Moses in the sovereign authority; for which act of rebellion, as their history informs us, they were signally punished. Aaron was afterwards confirmed in the priesthood by the miracle of the almond-rod, which bloomed, and which was deposited in the most holy place, in order to perpetuate his title, and the remembrance of this prodigy. He married Elisheba, the daughter of Ammiah of the tribe of Judah, by whom he had four sons; two of whom were destroyed by fire, and from the other two the race of the high priests of the Jews was continued from Aaron in regular succession. When the period of Aaron's service was completed, he ascended Mount Hor near the encampment of the Israelites at Moab, divested himself of the pontifical ornaments in the view of the people, and put them upon Eleazar his eldest son, and his successor in the high priesthood. He then died in the arms of Moses and his son, at the age of 133 years, in the 40th year after the Exodus; and they buried him in a cave of this mountain: but the place of his interment was concealed, probably under an apprehension that in future ages he might become an object of superstitious worship. For a fuller account of Aaron the reader is referred to Exodus, Leviticus, and the book of Numbers to the 24th verse of the xxth chapter; and for an abstract, with remarks on several circumstances pertaining to his station, character, and office, to Calmet's Dictionary of the Bible.

AARON, in Church History, a British martyr, who suffered a cruel death, together with Julius, under the persecution of Diocletian, in the year 303. It does not appear what were the British names of these two martyrs; as the Christian Britons took new names from the Latin, Greek, or Hebrew, at the time of their baptism. They were buried at Caerleon, and each of them had a church dedicated to his memory in that city. In the Roman martyrlogy their feast was fixed on the 1st of July. B. G. Brit.

AARON, a presbyter and physician of Alexandria, author of 30 books in the Syriac tongue, containing the whole practice of physic, called the Pandects, chiefly collected from the Greek writings, and supposed to be written before 620. They were translated into Arabic by a Syrian Jew physician about A. D. 683. He is the first author that mentions, and that has clearly described, the small-pox and meafeles, which probably first appeared at Alexandria in Egypt A. D. 640, and were brought thither by the Arabs when they took that city. He directed the vein under the tongue to be opened in the cure of the jaundice, and observed that the faces in that disease are of a white colour. The above-mentioned work and its translations are lost; and we
AAT

we have only fragments remaining, collected by Mohammed Razi in his Continents.

Aaron, of Harun, Al Rajhib, in General Biography, a celebrated caliph of the Saracen empire. See Bagdad.

Aaron Arrieu, a learned Rabbi and Caraita in the thirteenth century, who wrote an Hebrew grammar, printed at Constantinople in 1581. He was probably the same with Aaron, who wrote a commentary on the Pentateuch, which is in MS. in the French king's library, and translated by Dantz in 1710; and MSS. annotations on the Old Testament.

There was another Aaron, distinguished from the former by the epithet Hacharan, i.e. posterior, who was born at Nicomedia in 1546. His writings are esteemed oracular by the Carait Jews. The Garden of Eden, containing the doctrines and customs of his nation, is the principal.

Aaron, a Levite of Barcelona, was the author of 613 precepts on Mofes in Hebrew, printed at Venice in 1523. He died in 1297.

Aaron, Ben chaim, was chief of the synagogue of Fez and Morocco in the beginning of the seventeenth century. His commentary on the Prophets, intitled the heart of Aaron, one on the Syphra, and another on the Law, were printed at Venice in 1609, folio.

Aaron, Ben afer, was a celebrated Rabbi, who is said to have invented the Hebrew points and accents towards the fifth century. His Hebrew grammar was printed by Bomberg in 1515, folio.

Aaron, in Geography. See St. MaloE.

Aaronsburgh, in Geography, a town of America, lying at the head of Penn's creek in the county of Northumberland, about 30 miles W. from Louisburgh, and 40 W. by N. from Sunbury.

Aarsens, Francis, Lord of Somedlyck and Spycy, one of the greatest ministers for negotiation in the United Provinces. He was sent by Barneveld, who presided over these provinces, as agent into France, and was the first person recognized, in 1669, as Dutch ambassador by the French court. He was the first of three extraordinary ambassadors sent to England in 1620, and the second of those who were deputed in 1641, to negotiate the marriage of Prince William, son to the Prince of Orange. After having been employed in several other important missions, he died in an advanced age, very rich, and left on record memoirs of all the embassies in which he had been engaged.

Aarsens, or Aertsen, Peter, denominated from his nature by the Italians Pietro Longo, a celebrated painter, was born at Amsterdam in 1519. He excelled in painting a kitchen with its furniture, and his altar-pieces were particularly admired. A famous piece of this kind was destroyed in the insurrection of 1566; and because he complained of this outrage, he was in danger of being murdered by the populace. He died in 1575.

Artgen, or Aertgen, a painter of eminence, who was born at Leyden in 1498, and purfied his father's trade of a woollener to the age of eighteen. He voluntarily lived in meaner and obscurity; and declined offers of advancement, alleging that he found more sweets in his poverty than others did in their riches. He never worked on Monday, chusing to devote that day, with his diciples, to the bottle. It was his practice to stroll about the streets in the night, playing on the German flute; and in one of these frolics he was drowned in 1564.

Aas, in Ancient Geography, a town of Paleolize, situated between Azotus and Alcalon, which in the time of Jerome was a hamlet.

Aatter, a district of the northern part of Arabia Felix, on the Red Sea.

Aavora, in Natural History, the fruit of a sort of large palm tree in the Weil Indies, and in Africa. It is of the size of a hen's egg, and included, with several more, in a large shell. In the middle of the fruit there is a hard nut, about the size of a peach stone, which contains a white almond, very alfrangent and proper to check a diarrhoea.

Ab, in the Hebrew Chronology, the eleventh month of the civil year, and the fifth of the ecclesiastical year, which begins with Mifam. This month answered to the moon of July, comprehending part of July and of August, and contained thirty days.

The first day of this month is observed as a fast by the Jews, in memory of Aaron's death; and the ninth, in commemoration of the destruction of the temple by Nebuchadnezzar, in the year before Christ 587. Jopephus observes, that the burning of the temple by Nebuchadnezzar, happened on the same day of the year on which it was afterwards burned by Titus. The same day was remarkable for Adrian's edict, which prohibited the Jews to continue in Judæa, or to look towards Jerusalem and lament its desolation. The eighteenth day is also kept as a fast, because the sacred lamp was extinguished that night, in the reign of Ahaz. On the twenty-fifth, or according to Scaliger, the 22d day, was a fast, called Xylophobia, from their laying up the necessary wood in the temple: and on the twenty-fourth a fast in commemoration of the abolishing of a law but the Ammonites, or Maccabees, which had been introduced by the Sadducees, and which enabled, that both sons and daughters should alike inherit the estates of their parents.

Ab, in the Syriac Calendar, is the name of the last summer month.

Ab, prefixed to the names of places, generally denotes that they belong to some abbey.

Ab, of Abau, Hamifah. See Hamifah.

Ab, Abas or Abus, in Ancient Geography, a mountain of Greater Armenia, situated between the mountains Niphatas and Nibarus. According to Strabo, (Geog. tom. ii. p. 799,) the Euphrates and Araxes flow from this mountain; the one towards the west, and the other to the east. Eufathius and Dionyfus Periegetes, call this mountain, which is part of Mount Taurus, Achos.

Ab, or Aba, a city of Phocis in Greece, near Helicon, famous for an oracle of Apollo, more ancient than that at Delphi, and also for a rich temple, plundered and burnt by the Persians. Strabo's Geog. tom. i. p. 647, and the authors there cited.

Abaca, in Botany, a kind of flax or hemp, gathered in some of the Manillas or Philippine Islands. This plant is grown every year; being gathered, it is steeped in water, and beaten as hemp is. It is of two kinds, the white and the grey. The white abaca is used for making very fine linen; but the grey is employed for nothing but cordage.

Abaca, in Geography, one of the Philippine Islands in Asia.

Abacena, in Ancient Geography, a town of Media, and another of Cana in the Hither Asia.

Abacenum, a town of Sicily, the ruins of which are supposed to be near Tripoli, a citadel on a steep mountain near Melita. Its inhabitants were called Abacenini. Stephan. de Urbibus, tom. i. p. 2.

Abacay, in Natural History, a name given by the people of the Philippine Islands to a species of parrot, called also Calangay.

Abach, in Geography, a market town of Bavaria, situated on the Donabue. It has an old castle, in which Henry II. is said to have been born, and is much frequented.
 quadratic on account of its mineral waters. E. long. 11° 59'.
N. lat. 48° 53'.

ABACINARE, or ABACINARE, derived either from
the Italian bacinio, a bason, or baco, a dark place, in Writers
of the Middle Age, a species of punishment, consisting in
the flogging of the criminal, by holding a red hot bason, or bow,
before his eyes. Du-Cange.

ABACK, in Sea Language, signifies the situation of
the falls, when their surfaces are slanted against the
masts by the force of the wind. They may be brought aback, either
by a sudden change of the wind, or an alteration in the
ship's course. They are laid aback to effect an immediate
retreat, without turning either to the right or left, in order
to avoid some imminent danger, in a narrow channel, or
when she has advanced beyond her station in the line of
battle, or otherwise. The falls are put in this position by
skewering their lee-bows, and hauling in the weather-
ones.

ABACOA, in Geography, one of the Bahamas islands,
about 54 miles in length and 21 miles in breadth. See
Providences.

ABACOCHEE, a river of America, called also Coosa.

ABACOT, a cap of flate, wrought up in the form of
two crowns, worn by our ancient British kings.

ABACTOR, formed of ab, from, and act or, a driver,
from agere, to drive, (called by the Roman lawyers Abigeus
or Abigeus), that drives off cattle in herds; in contradistinc-
tion to one who steals a single sheep, &c. only, who is
called a thief. Nam qui eum non furripit ut fur exer-
etur, qui fregit ut Abactor. The punishment of Abigeat
was more severe than that of Furtum; viz. condemnation
to the mines, banishment, or even death itself, according
to the quality of the offender. But sometimes in Spain
the punishment was more severe than elsewhere, the people there
being more addicted to it.

ABACTUS, or Abigeatus, among the Ancient Phys-
icians, was used for a miscarriage procured by art, or force
of medicines, in contradistinction to abortus, which is
natural. But the moderns know no such distinction. See
Abortion.

ABACUS, among the Ancients, was a kind of cupboard,
or Buffet.

The word is formed from the Greek abax, which, among
that people, signified the same thing.

ABACUS, among the Mathematicians, was a little table
strewed over with dust, on which they drew their schemes and
figures.

In this sense, the word seems formed from the Phen-
icians, abax, abak, dtyf.

ABACUS Pythagoricius, a table of numbers, contrived for
the ready learning of the principles of arithmetic; so deno-
minated from its inventor, Pythagoras.

Hence also, from an agreement in point of use, the
names Abacus and Abaci are used, among Latin and Italian
writers, for an alphabet, or ABC, &c.

The Abacus Pythagoricius, was, in all probability, no other
than what we call a multiplication-table.

Lindolus and Wolflus give us methods of performing
multiplication without the help of the Abacus; but they are
too operose in ordinary cases for practice. See Mul-
tiplication.

The Abacus for facilitating the operation of arithmetic,
is an instrument almost as ancient, and extensive, as the art
of arithmetic itself: if it be later than the methods of com-
puting by the fingers, and by tabella, or tables (which ob-
tained among the Egyptians), it is at least much prior to the
use of numeral letters or figures, wrought with the pen.

We find it in use, under some variations, among the
Greeks, Romans, Chinese, Germans, French, &c. It
exceeds in point of facility, and neatness of operation, as
working without any strokes or blots of the pen, or waste
of paper; hence also give it the preference in point of ex-
pedition.

The Abacus is variously contrived; that chiefly used
in European countries is made by drawing any number of
parallel lines, at pleasure, at a distance from each other,
equal to twice the diameter of a calulus, or counter. Here
a counter placed on the first or lowermost line, signifies 1;
on the second, 10; on the third, 100; on the fourth, 1000;
on the fifth, 10,000; and so on. In the spaces between the
lines, the same counters signify half of what they signify on
the next superior line; viz. in the space between the first
and second lines, 5; between the second and third, 50;
between the third and fourth, 500; and so on. Thus the
counters on the Abacus, in the figure here subjoined, make
the sum of 37592. — The Abacus is also divided cross-wise
into arcus, by means whereof subtractions are made. Wolf.
Lex. Mat. p. 175, sqq.

The Greek Abacus, αμβω, or counting-board, was an ob-
long frame, divided by several brass-wires stretched parallel
to one another, and mounted with an equal number of
little ivory balls, like the beads of a necklace. By the
arrangement of these balls, distinguishing the numbers into
different classes, and observing the relations of the lower
to the upper, all kinds of computations were easily performed.

The Roman Abacus was much the same with the Gre-
cian, except that instead of lines, or wires, and beads, in
the Roman, we find pins and groves for them to slide in.
It is described by several authors; but notwithstanding all
these descriptions, we should have had a very obscure idea
of the ancient manner of reckoning, if figures of it had not
been found among the ancient marbles. Phil. Trans. N° 180.

The Chinese Abacus confits, like the Grecian, of several
series of beads strung on brass wires, extended from the top
to the bottom of the instrument, and divided in the middle
by a croos piece from side to side; so that in the upper row
each string has two heads, which are each reckoned for
five; and in the lower row, each string has five heads of
different values, the first being reckoned as 1; the second,
as 10; the third, as 100, &c. as among us. Add, that
instead of four pins for digits, or units, in the Roman
Abacus, the Chinese has five beads.

We have two different figures, and descriptions, of the
Chinese Abacus, one given by F. Martinus, who had lived
many years in China; the other by Dr. Hooke, who copied it
from a Chinese dictionary of the court-language. See
Shwan-Pan.

ABACUS legificus is a rightangled triangle, whose sides,
forming the right angle, contain the numbers from 1 to
60; and its area, the products of each two of the op-
posite numbers. This is also called a canon of sexage-
simals.

ABACUS & palmule, in the Ancient Music, denote the machinery,
machinery, whereby the strings of the polyphonic, or instrument of many strings, were struck, with a plectrum made of quills.

Abeus harmonicus is used by Kircher for the structure and disposition of the keys of a musical instrument, whether to be touched with the hands or the feet.

Abeus, or Abeicus, in Architecture, is the uppermost member of the capital of a column; serving as a kind of coving, both to the capital and the whole column.

Vitruvius, and others after him, who give the history of the orders, tell us, the abacus was originally intended to represent a square tile laid over an urn, or rather over a basket.—An Athenian old woman happening to place a basket thus, covered over the root of an acanthus: that plant shooting up the following spring, encompassed the basket all around, till meeting with the tile, it curled back, in a kind of scroll. Callimachus, an ingenious sculptor, paffing by, took the hint, and immediately executed a capital on this plan; representing the tile by the abacus, the leaves by the volutes, and the basket by the vase, or body of the capital. There is some difference in the form of the abacus in different orders. In the Tuscan, Doric, and ancient Ionic, it is a flat, square member, well enough representing its original tile; whence the French call it talier, teckfor. In the richer orders it loses its native form: its four sides or faces being arched, or cut inwards, with some ornament, as a rofe, or other flower, or a sikh's tail, in the middle of each arch. See Corinthian and Composite. But some architects take other liberties in the abacus, in respect of its name, place and office. Thus, in the Tuscan order, where it is the largest and most massive, as taking up one third of the height of the whole capital, it is sometimes called the dye of the capital.—In the Doric it is not always the uppermost member of the capital; a cymatium being frequently placed over it. In the Ionic, some make it a perfect ogee, and crown it with a fillet.—The proportion of the abacus, as preferred by Vitruvius, is, that its diagonal (from corner to corner) be twice its height: but the moderns dispense with this proportion.

Scamozzi applies the term abacus to a concave moulding in the capital of the Tuscan pedastal, and Palladio calls the plinth above the echinus, or boulétis, in the Tuscan and Doric orders, by the same name. In the Ancient Architecture, Abacus is used to denote certain compartments in the incrustation or lining of the walls of flat-roofs, mosaic pavements, and the like. There were abaci of marble, porphyry, Jasper, alabaster, and even glass; shaped variously, square, triangular, and the like.

Abada, in Zoology, a singular kind of wild animal in BENGASIA, in Africa. It is about the size of a half-grown colt, stay and swift-footed. It has two horns, one in its forehead, and another in the nape of its neck, which are of different length and bulk. The head and tail of this animal resemble those of an ox, and its feet are cloven like those of a fag, but much thicker. The front horn is deemed an antidote in many disorders; and the pulvérized bones are made into a poultice, and recommended by the natives as a sovereign remedy against all aches and pains, and as effectual for purifying the blood and humours. Mod. Un. Hist. v. 13. p. 8. See Rhinoceros.

ABADAN, in Geography, a town of Asia, on the gulf of Persia, and near the mouth of the river Tigris. It is dependent on Baffora. E. long. 45° 13'. N. lat. 39° 30'.

ABADAVINAS, in Ornithology. See Spinus.

Abaddon, Heb. corresponding to Apollyon, Gr. i.e. Death, in Scripture-history, is represented, Rev. x. 11, as king of the locusts, and the angel of the bottomles pit, who has been thought by many interpreters to be Satan, or the devil. Dr. More (Theol. Works, p. 130.) interprets this title as referring to the profession which the Mahometans should make of maintaining the doctrine of the unity. Le Clerc and Dr. Hammond understand by the locusts in this passage, the zealots and robbers who infested and depopulated Judea before Jerusalem was taken by the Romans, and by Abaddon, John of Gischala, who having treacherously left that town before it was surrendered to Titus, came to Jerusalem and headed those of the zealots who acknowledged him as their king, and involved the Jews in many grievous calamities. The learned Grotius concurs in opinion, that the locusts are designed to represent the sect of the zealots, who appeared among the Jews during the siege, and at the time of the destruction of Jerusalem. Mr. Jof. Mede remarks, that the title Abaddon alludes to Obodas, the common name of the antient monarchs of that part of Arabia, from which Mahomet came; and considers the passage as descriptive of the inundation of the Saracens. Mr. Lowman (Paraphr. on Rev. p. 118, &c.) adopts and confirms this interpretation. He shews that the rise and progress of the Mahometan religion and empire exhibit a signal accomplishment of this prophecy. All the circumstances here recited correspond to the character of the Arabs, and the history of the period that extended from A.D. 568 to A.D. 675. In conformity to this opinion, Abaddon may be understood to denote either Mahomet, who influed from the abyss, or the cave of Hera, to propagate his pretended revelations, or more generally, the Saracen power. Mr. Bryant supposes Abaddon to have been the name of the Ophite deity, the worship of whom prevailed very antiently and very generally. See SERPENT.

ABADIR, in the Roman Theology, the Stone which Saturn swallowed, believing it his new-born son Jupiter, and which at length became defined, and the object of religious worship. The Carthaginians gave this title to gods of the first order.

ABÆ. See ABA.

ABAFT, in the Sea Language, is used in speaking of things placed or done towards the stern, or hinder part of a vessel; called also aft, and stands opposite to for. Thus they say a thing is abaft the fore-mast, when it is behind it, or near to the stern. The poft of the master, captain, and other officers, is abaft the main-mast. The stern, strictly speaking, is only the outside; abaft includes both inside and out.

Aabith the beam, denotes the relative situation of any object with the ship, when the object is placed in any part of that arch of the horizon which is contained between a line at right angles with the keel and that point of the compass which is directly opposite to the ship's course.

Aabaci, the same thing with Aabasi; although of different value, it is worth at Toulis, and throughout all Georgia, about 36 fols French money; four chauris, which are also called fains, make one Aabasi.

Abaka Il Khan, in Biography, the 8th emperor of the Moguls, of the race of Zingis, who succeded his father Hulaku, and commenced his reign, A.D. 1264. He was prudent and learned, and possessed many amiable qualities which endeared him to his subjects, and rendered his government prosperous. He joined the Christians in celebrating Easter-day at Hamadan, whence some have erroneously inferred that he was a Christian. He reigned 17 years. Mod. Un. Hist. iv. p. 386.

ABAKANSKOI, in Geography, a garrison town of the province of Yenifie, in Siberia. It stands on the river Jenief, and is so called from the river Abaken, which falls into the Jenief at no considerable distance from it. E. long. 92° 3'. N. lat. 52° 5'.

ABALAK, a small town in Siberia, about two miles from
from Tobolik, famous for an image of the Virgin Mary, to which many pilgrims resort, and which is annually carried in procession to Tobolik. E. long. 63° 20'. N. lat. 58° 11'.

ABALATION, from ab and alienare, to alienate, in the Roman laws, denotes a species of alienation; wherefore those goods called res muncipii, such as cattle, slaves, lands, and possessions, within the territory of Italy, were transferred to persons legally capable thereof, either by a formula, called traditio novi, or a surrender in open court.

ABALIENATUS, alienated from, a medical term, which, when applied to the body, signifies that the part so spoken of, is in a state that requires amputation; and when applied to the fenes, denotes their total destruction.

ABALITES. See Avalites.

ABALLABA, in Geography, the ancient name of Appleby, a town in Westmorland, remarkable only for having been a Roman station. W. long. 1° 4'. N. lat. 55° 38'.

ABALUS, an island, as the ancients suppos'd, in the German ocean, called by Timaurus Balia, and by Xenophon Lamplacenus Balitoe, now the peninsula of Scandinavia. Amber, according to Pliny, (Hist. Nat. tom. ii. p. 770. ed. Hard.) was thrown on the shores of this island by the waves of the sea; and he reports, that some perfons thought this fabulosity dropped from the trees in the adjacent mountains.

ABAN la Ville, a town in the bailiwick of Quimicy, situat between the town of that name and Lieu Dieu, in Franche Comte. E. long. 6° 15'. N. lat. 47° 10'.

ABANA, a river of Phoenicia, which rising from Mount Hermon, washed the south and west sides of Damascus, and fell into the Phœnician sea on the north of Tripolis. The Abana was one branch of the Barrady, called by the Greeks Obrysthias. This river is mentioned by Naaman.

2 Abang. See Ady.

ABANO, a village near Padua, in Italy, famous for its warm baths. In one of these baths the patients are covered with the warm mud. E. long. 10° 47'. N. lat. 45° 30'.

ABANTES, in Ancient History, a warlike people who came originally from Thrace, and settled in Phocias, a country of Greece, where they built a town, called ABA, after the name of their leader. Some ancient authors say, that the Abantes afterwards settled in the island Euboea, now called Negroponte; others say that the Abantes came from Athens. These people are called by Homer (II. i. ii. v. 542.) ὄμιοι ἀνθρώποι, from wearing their long hair behind. They were called Curtes from their cutting it short before.

ABANTIA, or ABANTIS, in Ancient Geography, a name given to the island Euboea, in the Egean Sea; extending along the coast of Greece, from the promontory Sunium of Attica to Thessaly, and separated from Beotia by a narrow strait called Euromus. It derived its name from the ABANTES, according to Strabo, tom. ii. p. 652. Others say, that the inhabitants were called ABANTER, from Abas their leader, who first reigned in the island: and Reineccius supposes that they were Egyptians, who followed Cadmus into Euboea, and settled there.

ABAPTISTA, or ABAPTISTON, in Surgery, derived from the privative and βάπτω, to plunge; the shoulder of a trepanning instrument. This term is employed by Galen, Fabricius ab Aquapendente, Seclutus, and others, to denote the conical law with a circular edge (otherwise called modiolus or terreta), which was formerly used by surgeons to perforate the cranium. Modern practitioners, however, have usually preferred the cylindrical form. Various contrivances are recommended, to avoid the danger that may arise from want of dexterity in the operation of trepanning, and a new instrument has been lately delineated for this purpose, by Mr. Rodman of Paitley, (Philosophical Magazine for April 1800;) but as no invention can compensate for a defect of skill in the surgeon, these precautions are not in general attended to. For a more particular account of this instrument, see TREPANE and TREPHERINE.

ABARA, in Geography, a town in the greater Armenia, under the dominion of the Turks. E. long. 46° 15'. N. lat. 39° 45'.

ABARANER, a town of Turcomania, in Asia, situated on the river Alignena, and twenty miles north of Nakhivan. It is said that 300 Roman Catholics reside here. E. long. 45° 30'. N. lat. 39° 50'.

ABARCA, an ancient kind of shoe used in Spain to pass the mountains, made of raw hides, and bound with cords, which secured them against the snow.

ABARIN, in Scripture Geography, a ridge of high mountains situate between the rivers Arnon and Jordan, and nearly opposite to Jericho, in the land of Canaan. Nebo and Lifgah, which were suppos'd to have been the same mountain, formed a part of this extensive range of steep hills. Here the Israelites encamped for the last time, but one before they passed over Jordan into the promised land. The name Abarin was applied to part of this ridge of mountains in the time of Eusebius and Jerome. Wells's Geog. of the O. T. T. vol. ii. p. 152, &c.

ABARIMON, in Ancient Geography, a valley of Scythia, at the foot of Mount Imus, the inhabitants of which, according to Pliny, (Hist. Nat. tom. ii. p. 370.) were Anthropophagi, little superior in their habits and manners to the wild beasts with which they associated. Their feet were turned backwards, and yet they were very swift.

ABARIS, in Biography, the famous Hyperborean Sage, who is said to have been the disciple and friend of Pythagoras, and to have performed a great number of singular exploits. His history is so fabulous, that Herodotus contents himself with relating (lib. iv. cap. xxxvi. p. 296. ed. Wills.) that he travelled through the world on an arrow, without any sustenance. Harpocrate (art. Αβαρίς) informs us, that he was sent by his countrymen as an ambassador to Athens, in conformity to an order of Apollo, who being consulted at the time of a destructive plague that generally prevailed, replied, that the Athenians should offer up prayers on behalf of all other nations; and on this occasion, as we learn from Diodorus Siculus, (lib. iii. c. xliv. p. 159. ed. Wills.) he renewed the friendship and intercourse between his countrymen and the people of Delos, which had been interrupted. He also visited Lacedaemon; where some writers say, as we are informed by Pausanias, (lib. iii. cap. xiii. p. 278. ed. Kuhnii.) he built a temple consecrated to Proserpine the Salutary. Abaris performed this long voyage with ease and expedition, being transported through the air, over rivers, seas, and mountains, on an enchanted arrow, which, says Jamblichus, (Vit. Pythag. p. 118.) he had received as a present from Apollo. Some have suggested that this arrow denoted his skill in astronomy, by which he directed his course. He is said by Strabo (lib. vii. tom. i. p. 462.) to have gained the esteem of the learned men of Greece by his politefns, eloquence, and wisdom. He particularly excelled, says Jamblichus, (cap. xix. p. 131.) in the arts of magic and divination, of which he exhibited the most illustrious proofs in all the countries through which he travelled. He adds, that he was taught by Pythagoras to find out all truth by the science of arithmetic. Porphyri (Vit. Pythag.) informs us, that he was capable of foretelling earthquakes, in driving away plagues, laying frowns, &c. Abaris, says Bayle, constructed the famous palladium of the bones of Pelops, and fold it to the people
people of Troy. After he had visited many countries, and
collected a great quantity of gold, he set out on his return
home; and in his way had an interview with Pythagoras at
Crete, in Italy. Suidas enumerates various books which he
is said to have written; and Himerius the Sophist, applauds
him for speaking pure Greek, which he acquired by means of
the intercourse that subsisted between the Greeks and Hyper-
boreans. In his various peregrinations he imposed upon the
vulgar by false pretensions to supernatural powers; deliver-
ing oracular predictions, healing diseases by incantation, and
practising other arts of imposture. Hence the fabulous
stories concerning *Abaris* grew up into an entire history
written by Herculides. Some of the later Plutonists, says
Ehlied, (History of Philosophy, vol. i. p. 103.) in their
zeal against christianity, collected these and other fables, and
exhibited them, not without large additions from their own
fictitious imaginations, in opposition to the miracles of Christ.
He concludes upon the whole, that *Abaris* has a better title
to place among impostors than among philosophers, and
that the time in which he flourished may, with some degree
of probability, be fixed about the third olympiad, or B. C. 768.

The age of Pythagoras is no less uncertain, otherwise it is not
likely that they should be contemporaries. Mr. Toland in
his Plurilunious works, (vol. i. p. 161.) premising that the
Hebrides were the Hyperboreans of Diodorus, infers that
*Abaris* was both of that country, and likewise a Druid,
having been the priest of Apollo. Suidas, says this writer,
who knew not the distinction of Infular Hyper-
boreans, makes him a Scythian; whereas Diodorus has truly
fixed his country in the island, and not on the continent.
Notwithstanding the fictions and errors that have been
blended with the history of *Abaris*, it is certain, (as he ap-
prehends,) that he travelled over Greece, and from thence
into Italy, where he familiarly conversed with Pythagoras,
who favoured him beyond all his discipies, by imparting his
dothesies to him, (especially his thoughts of nature,) in a
more plain and compendious method than to any others.

The Hyperborean in return presented the Scythian, as if he
had equalled Apollo himself in wisdom, with the sacred
arrow, on which he had traversed seas and mountains; as the
vulgar, particularly in the Hebrides, still believe, that
wizards and witches waft themselves whither they please
upon broom-sticks. According to the account given by
Himerius, and cited by Toland, (p. 180. &c.) *Abaris* the
fage, was by nation an Hyperborean, a Grecian in speech, and
resembling a Scythian in his habit and appearance. He
came to Athens, holding a bow, having a quiver hanging
from his shoulder, his body wrapt in a plaid, girt about his
loins with a gilded belt, and wearing transverses feaching from
his waist downward. His habit, therefore, was not that of
the Scythians, who were always covered with skins; but he
appeared at Athens in the native garb of an aboriginal Scot.
As for what regards his abilities, Himerius relates, that he
was affable and pleasant in conversation, in dispatching great
affairs secret and indiscreet, quickfisted in precipitae ex-
genies, in preventing future dangers circumstent, a
seeker after wisdom, defiros of friendship, trufiting indeed
little to fortune, and having every thing treasured to him for
his prudence. Neither the Academy nor the Lycenn, says
Mr. Toland, could furnish out a man with fitter qualities to
go to far abroad, and to such wise nations, about affairs no less
arduous than important. But if we attentively consider his
moderation in eating and drinking, and the use of all thofe
things which our natural appetites incessantly crave, adding
the candour and simplicity of his manners, with the solidity
and wisdom of his answers, all which we find sufficiently at-
tested; it must be owned, that the world at that time had
few to compare with *Abaris*. One of our most indiligious
historians has adopted the opinion of Mr. Toland, and taken
great pains to prove that *Abaris* was a native of Britain, or
one of the British illes. See Carly’s General Hist. Eng. vol. i.
p. 52, &c. cited by Dr. Henry in his History of Great
Britain, vol. ii. p. 70, 8vo.

ABARNUS, or ABRANUS, in Ancient Geography, a city,
country, and promontory of Parium, near the Hellepon.
Milies, in his description of Asia, says, that it was a
promontory of Lampiaus; and it is said to have been so
denominated from Abaris, a Phocian, by the Phocians,
who built Lampiaus. Some writers have called it Aparis.
Stephan. de Urbibus, tom. i. p. 4.

ABARTICULATION, in Anatomy. See DIAR-
THESES.

ABAS, a weight used in Peru for weighing pearls; be-
ing an eighth part lighter than the European carat.

ABAS, in Mythology, the son of Hypothon and Meg-
nira, who entertained Ceres, and offered a sacrifice to that
goddes; but *Abas* ridiculing the ceremony, and giving her
opprobrious language, she sprinkled over him a certain mix-
ture which he held in her cup, that transformed him into a
newt or water-lizard.

ABAS, or ABASSA, in Entomology, a species of the Bom-
byx of Fabricius, and of the Phalaena of Linnaeus, with brown,
spreading wings, the hinder wings cincerus, and the ocelu-
lus reddish. It is found in Surinam.

ABASA, in Geography, a small town of Romania in
European Turkey, 12 miles from Adrianople, in the road to
Constantinople. N. lat. 42° 18’. E. long. 25° 35’.

ABASED, ABASSE; in Heraldry, is applied to the
vol, or wings of eagles, &c. when the tip, or angle, looks
downwards toward the point of the field; or when the
wings are shut: the natural way of bearing them is spread,
with the tip pointing to the chief, or the angles. A chev-
ron, a pale, bend, &c. are also said to be abased when their
points terminate in, or below the centre of the field. Again,
an ordinary is said to be abased, when it is below its
due situation.

ABASCIA, or ABASIA, in Geography, the northern
district of the western division of Georgia, in Asia. The
inhabitants are poor and treacherous. They trade in furs, the
skins of the buck and tyger, linen yarn, box-wood, and
bees-wax; but their principal traffic conflicts in the file of
their own children to the Turks, and to one another. They
are christians only in name; but their customs resemble those of
the MINGRELIANS. The men are robust and active, and
the females fair and beautiful. E. long. from 39° to 43°,
N. lat. from 43° to 45°. See ABASIA and AKHAS.

ABASCUS, a river of Asiatic Sarmatia, which rises in
mount Caucasus, and falls into the Euxine, between Pityu
the east and Nofis to the west.

ABASTIS, a tract of Asiatic Myia, in which was
situated the ancient city of Ancyra.

ABASKAJA, a town in Siberia, on the river Icfhim.
It has a church encompassed by ramparts, and guarded by
dragoons. E. long. 69° 5’. N. lat. 50° 10’.

ABASSA, the smaller and the great, two districts
in the vicinity of the Caucasian mountains. The for-
mer, according to the account lately given by Palma in
his journey to the southern departents of Ruffia, is inhab-
ited by fix tribes, who were formerly Christians, but their
nobles now acknowledge the Mahometan religion; their
manners, clothing, and way of life, resemble those of the
CIRCASSIANS; and there is some familiarity in their lan-
guage. They likewise practise agriculture, though they
live more by pittance. They are celebrated on account of
their large and fine breed of horses; and they would be rich
(in their own estimation) if they were not incessantly
plagued,
plagued by the encroachments of the Circassian princes. The most powerful inhabitants of the great Abassia are the Natuchals. See Abbas and Abhaks.

ABASSA, a silver coin current in Peria, worth two mamanni, or four chayes; the chaye being estimated at nine foles fif deniers of French money, makes the abass worth thirty-eight foles; seventeen foles of Holland, or from one half and four pence to about eighteen pence English. It derives its name from Shah Abbas II. King of Peria, under whom it was struck.

ABASSI, in Geography. See Geombrong.

ABASSIA, in Geography. See Abyssinia and Ethopia.

ABAT-CHAVVE, a name given in Poitou, Angoumois, Saintonge, La Marche, and Limofin, in France, to a sort of very ordinary wool; much like that called by the French, paigmons, and phares.

ABATE, Andrea, in Biography, a Neapolitan master, who excelled in painting inanimate objects. His colouring was bold; he gave a noble relief to the vases and other ornaments, with which he enriched his design; and grouped all his objects with peculiar judgment and care. He died in 1732. Pikington’s Dict.

ABATE, in Law, from the French abattre, signifies to break down or destroy; as, to abate a nuisance; and to abate a castle. It is likewise used to denote the act of one who walks or even a castle, void by the death of the last possessor, before the heir can enter; and by that means keeps him out. It also means to defeat or overthrow, on account of some error or exception. See Abatement. It is also used in the former sense thus: the writ of the demandant shall abate, i. e. be frustrated or overthrown; the appeal abated by covin, i.e. the accusation is defeated by deceit.

ABATE, in the Manege. A horse is laid to abate, or take down his curvets, when he puts both his hinder legs to the ground at once, and observes the same exactions in all the times.

ABATEMENT, in Commerce, (from the French abbatre), a term used for a prohibition of trade to all French merchants in the ports of the Levant, who will not stand to their bargains, or who refuse to pay their debts. It is a sentence of the French court, which must be taken off before they can sue any person for the payment of their debts.

ABATEMENT, in Heraldry, something added to a coat-armour, to distinguish its proper value and dignity, and note some dishonourable action, or fault, in the character of the person who bears it. These abatements, which are nine in number, may be made by reversion or diminution.

Reversion is either turning the whole effeoteon upside-down, for treason; or the adding another effeoteon, inverted, in the former, for deflowering a maid or widow, or from the banner of the sovereign.

Diminution is the blenching any part by adding a stain, or mark of diminution: such are the self tenne for a person who revokes or recedes from a challenge; a point dexter parted tenne, for a person who boats of an act of valor which he never performed; a point in point fanguine, for a person guilty of cowardice; a point champaign tenne, for him who kills his prisoner after his having demanded quarter; a plain point fanguine, for one who tells a lie to his sovereign or commander in chief; a gore fimitte tenne, for him who behaves in a cowardly manner towards his enemy; and a gusset fanguine, for an adulterer or drunkard, the gusset being on the right side for the former, and on the left for the latter.

It may be added, that these marks must not be of metal, and always either tenne or fanguine, otherwise instead of diminutions, they become additions of honour.

The last editor of Guilielm discards the whole notion of abatement, as a chimera. He agrees that no one instance is to be met with of such bearing; and that it implies a contradiction to suppose it. Arms, being insignia nobilitatis et honoris, cannot admit of any mark of infamy, without ceasing to be arms, and becoming badges of disgrace, which all would covet to lay aside. Besides, as no hereditary honour can be actually diminished, so neither can the marks thereof. Both indeed may be forfeited; as in the case of treason, where the effeoteon is totally reversed, to intimate a total suppression of the honour.

Some inferences, however, are produced to the contrary by Cumbriam and others. But these, though they may draw some extraordinary retentions of princes for offences committed in their presence, do not amount to a proof of such custom or practice; much less authorise the being of particular badges in the hands of inferior officers, as kings at arms. Menefrister calls them English fancies.

In a word, as arms are rather the titles of the dead than of the living, it would seem, that they can neither suffer diminution nor abatement; for thus an equal indignity would be put upon the ancestor and the descendant. Diminution, therefore, and abatement, can only affect arms lately granted, and solely when the person who obtained them is yet alive, and has tarnished his former glory by his subsequent misbehaviour. Even in this case, where abatement may properly take place, it can only be made by the suppression of some honourable badge, and not by the introduction of any degrading emblem.

Abatement, in Law, is the frustrating, or setting aside a suit, on account of some fault, either in the matter, or proceeding thereof. Thus, Plea in Abatement, is some exception alleged, either against the plaintiff’s writ, as wanting due form, or against his count or declaration, as being insufficient, or varying from the writ, specialty, or record; or against the matter of either, as insufficient, or being before another count; or against the allegations, as being uncertain, on account of some misinformation, or the death of one of the parties, or the marriage of the plaintiff, being a woman; to which some add disability.—Upon any of these, the defendant prays, that the plaintiff’s writ or plaint may abate, i.e. that his suit may cease for that time: if it be granted, all writs and process must begin de novo.

The death of a plaintiff did in all cases abate the writ before judgment, until the statute 8 and 9 W. III. c. 11, by which neither the death of the plaintiff nor that of the defendant shall abate it, if the action might be originally prosecuted by and against the executors or administrators of the parties; and if there are two or more plaintiffs or defendants, and one, or more, die, the writ or action shall not abate, if the cause, or action, survives to the surviving plaintiff, against the surviving defendant, &c. See Plea. Abatement also denotes an irregular entry upon lands. See Abate.

Abatement of Freehold. See Remainder.

Abatement of Nuisance. See Nuisance.

Abatement, in Commerce, is a differeninary allowance made for damage in goods sold, for a defect of weight or measure, on account of bad markets, or to a bankrupt-debtor, &c. See Discount and Rebate.

Abatement, in the Customs, is an allowance made upon the duty of goods, when the quantum damaged is determined by the judgment of two merchants upon oath, and ascertained by a certificate from the surveyor and landwaiter.

Vol. I
ABATIS, or Abbatis, in Writings of the Barbarous Age, denotes an officer of the Huns, who had the care of distribution of the corn. The name is derived from Beza, which denoted an ancient measure of corn.

In Cange.

ABATON, a house erected at Rhodes, as a fence to the theatre of Aesculapius, son of Hylas, and Coon. See on a story of her victory over the Rhodians, or rather for confirming the digress of the Rhodians from the public service, as the building, or destroying the theatre is, in their estimation, a poor affair.

ABATOR, in Law. See ABAT.

ABATOS, in Ancient Geography, an island in the lake of Morris, famous for its papyrus, and for being the burial-place of Otho.

ABAVI, ABOV, or ABAVUM; a large tree in Ethiopia, which bears a fruit like a pomegranate. See ANASNONIA.

ABAVUSIT, Firmius, in Biography, was born at Ucuz, in Langue-doc, on the 11th of November, in 1679. As his parents were protestants, he was obliged to leave France by the revocation of the edict of Nantes, and to wander among the mountains of Cevennes, till at length he found an asylum in the house of his mother, who had suffered much, and expended the whole of her fortune in his education. His chief attention was directed to the study of mathematics and natural history, whilst he made a considerable progress in every department of literature. In 1698 he visited Holland, and became acquainted with Bayle, Jurieu, and the Bafrages. He afterwards came to England, and conived with St. Evremond and Sir Isaac Newton. "You," says Sir Isaac, in an epistolary correspondence, "are a very fit person to judge between Leibnitz and me." King William, to whom he became known, attempted, by a liberal offer, to detain him in England; but he chose to return to Geneva; where, in 1715, he entered into the society formed for translating the New Testament into the French language; and where, in 1723, the university offered him the chair of philosophy, which he refused on account of the weaknees of his constitution, and of his talents. In 1727 he was presented with the freedom of the city, and appointed to the office of his librarians. There are few perons, whose mental endowments, natural and acquired, and whose moral and Christian virtues merit higher estimation than those of Abavusit. Of his mathematical and philosophical knowledge he gave ample evidence in his defence of Newton against father Callet, and in his discovery of an error in the Principia, which the author corrected in a second edition of that admirable work; a work which at the time of its first publication few were able to understand. He was also an excellent linguist, geographer, and historian, and intimately conversant with medals and ancient MSS. Such were not only the extent and accuracy of his knowledge, but the tenaciousness of his memory, that he could readily avail himself of the knowledge he had acquired. To this purpose it is mentioned, that when Rousseau published his Dictionary of Music, he found that Abavusit, who had not directed his attention to the music of the ancients for thirty years, could give him a clear and satisfactory account of the subject which he himself had investigated with so much labour. To this circumstance it was probably owing, that the whole panegyric which Rousseau ever wrote upon a living peron, and one of the finest of his notes, was addressed to Abavusit. Voltaire is also said to have paid him a very high and delicate compliment. A stranger having told the poet of Geneva, that he was come to Geneva to see a great man, Voltaire asked him, Whether he had seen Abavusit? We may naturally imagine, that the effect and attachment of these spirited philosophers would not be diminished by the liberty of his theological sentiments. On a subject that has been much controverted, Abavusit is said to have adopted and promoted the Arian doctrine. He also employed himself in discovering errors in the various translations of the Bible; and conceiving mathematical demonstration to be necessary in matters of testimony, he was led to divest the Scriptures of several miracles. But whatever may have been his occasional doubts, and the result of his inquiries on particular topics, he was, as a valuable biographer delineates his character, "religious by principle, and a Christian upon conviction." He defended religion to the time of his death, and employed some of his last days in establishing its evidence. Pious without hypocrisy, virtuous without austerity; he loved mankind; he fought to be useful to them; and he never blamed others for thinking differently from himself. His love of simplicity appeared in all his actions; he shunned ceremony, and retired from flattery. His conversation, always heard with eagerness, was delivered without ostentation. Even the exterior of his house, and of his person, discovered an unaffected dislike of parade and luxury. Always himself, he was always the modest, the wise, the learned, man, the wife Abavusit." This valuable man died, lamented by the republic, and regretted by the learned, on the 20th of March, 1767, at the advanced age of 87 years. He published, in 1730, a much improved edition of Spon's History and State of Geneva. As a citizen, he was active in the discussions of 1725; and though he was attached to the aristocratic party, he possessed a great degree of republican zeal. The writings he left behind him were chiefly theological. Of thefe the principal was, "An Essay upon the Apocalypse," written to show that its canonical authority is doubtful, and to apply the predictions to the destruction of Jerusalem. This work was translated by Dr. Twells, and refuted so much to the satisfaction of the author, that he stopped an impression of it, which had been intended. It was, however, afterwards introduced by the Dutch editors into their edition of his works, which also comprehends "Reflections on the Eucharist;" "On Idolatry;" "On the Mysteries of Religion;" "Paraphrases and Explanations of sundry Parts of Scripture;" several critical and antiquarian pieces, and various letters. An edition, without the Essay on the Apocalypse, was printed at Geneva, in 1740. Gen. Biog. by Dr. Aikin and Esfeld. Biog. Dict.

ABAY, in Geography, a name given to the Nile, in the territory of Gojam; which some derive from Ab, father, under which appellation this river, or perhaps the spirit residing in it, is an object of worship; but Mr. Bruce (Travels, vol. iii. p. 655.) says, that Abay in the Amharic language signifies, "the river that suddenly swells, or overflows periodically with rain." ABBY, among Cuthbirs, denotes the yarn of a weaver's warp, whence the wool of which it is made is called Abbewool.

ABBA, in Ancient Geography, a town of Africa, near Carthage.

ABBA, in the Syriac and Chaldee languages, literally signifies a father; and figuratively a superior, reputed as a father in respect of age, dignity, or affection. This appellation was not allowed to be used by slaves, when addressing the head of a family, and this circumstance adds peculiar force to the expression of the apostle, Rom. viii. 15. It may also
be observed, that St. Paul and St. Mark used the Syriac
_abbreviation_, which was understood in the synagogues and primitive
assemblies of Christians, but added to it, when writing to
foreigners, by way of interpretation, the term _father_. The
Jews affixed this denomination as a title of dignity; in
allusion to which, our Saviour forbade his disciples to call
any man their father on earth.

It was also anciently used as a title of honour, which
some great men, it is said, still retain in the Pyrenean
mountains.

_Abbas_, _Abba_, or _Abba_, is more particularly used in the
Syriac, Coptic, and Ethiopic churches, as a title which
the people give to their bishops.

The bishops themselves below the title _abba_, more emin-
ently, on the patriarch of Alexandria; which occasioned the
people to give him that of _baba_ or _papa_, that is, _grand-
father_; a title which he bore before the bishop of Rome.
It is a Jewish title of honour, given to certain of that class of
Rabbis called _Talmud_; and it is also particularly used
by some writers of the middle age, for the superior of a
monastery, usually called _Abbot_.

_Abbadie, James_, in _Biography_, an eminent protestant
divine, was born at Nay in Berne, in 1654, or 1658. He
studied in various places, but received his degree of Doctor of
Divinity at Sedan. Discouraged from the exercise of his pro-
feSSION in France, on account of the different circumstances
of the prelates, he first settled at Berlin under the pa-
tronage of the Elector of Brandenburg, about the year
1688 or 1689, where he resided for many years with great
reputation. In 1688 the Elector died, and he accompanied
Marshall Schomberg, first to Holland, and then to England
with the Prince of Orange. Loosing his patron, whom he
attended to Ireland, in 1690, he returned to England, and
became minister of the French church at the Savoy. He after-
wards removed to Ireland, and, by the recommendation of King
William, he obtained the deanery of Killaloe, with some
other preferments. He was strongly attached to the cause
of his royal master, as appears by his elaborate defence of the
Revolution, and his history of the affliction-plot. In 1720 he
removed again to England, and died in the parish of Mary-le-bone, in London, in the following year, at the
age, as some say, of 69, and according to others 73. He
was a zealous protestant, and one of the most eloquent men of
the period in which he lived. But his imagination and
memory, which was singularly retentive, as well as his learning
and eloquence, seem to have been superior to his judgment.

His works were numerous, and much approved at the time of
their publication; the chief of them were the following, viz.:-
_Traité de la Verité de la Religion Chrétienne_, Rotterdam 1684,
2 tomes 8vo; which work has been translated into English and
High Dutch, and has passed through several editions.

Mr. Boyle commends this book, as one of the most perfect
in its kind.—_Traité de la Divinité de notre Seigneur Jésus
Christ_, Rotterdam 1689, 8vo.—_L'Art de se connoître lui-
 même_, ou la _Recherche des Sources de la Morale_, Rot. 1692,
deco.—_Défense de la Nation Britannique_, &c. à Londres,
1692, 8vo.—_Histoire de la Conspiration derniere d’Angle-
terre_, &c. Londres, 1696, 8vo. This book was written by
order of King William III. and the original papers for
compiling it were furnished by the Earl of Portland and Sir
William Trumbull, secretary of state.—_La Verité de la Ré-
ligion Reformée_, Rot. 1718, 8vo. 2 toms.—_La Triomphe de
la Providence et de la Religion_, ou l’ouverture des sept
Sceaux per le Fils de Dieu, &c. Amin. 1723; 4 toms. 12mo.
Biog. Brit.

_Abbas Gumba_, in _Ornithology_. See _Erkoom_.

_Abbaisseur_, in _Anatomy_, a name given by Win-
flow, and other French writers, to one of the muscles of the
eye, called by others the _deprimens_ and _humiliis_; and by
Fabricius, the _rectus inferior_; Cowper and Albinus call it
the _depressor oculi_; and it is one of the _quatuor recti oculi_ of
the last author.

_Abbas_, in _Biography_, son of Abdalmotalleb, and nurse
of Mahomet, was at first hostile to his nephew as an impostor
and traitor to his country; but being taken prisoner in the second
year of the Hegira, at the battle of Beder, and a large ransom
being demanded, he represented to Mahomet that the pay-
ment of it would ruin him, and reduce his family to dif-
honour. Mahomet, however, had heard that he had secreted
money, and queried for the purport of gold which he had
left with his mother at Mecca. _Abbas_ was thus led to re-
gard him as a prophet, and to embrace his religion. He
afterwards saved his life at the battle of Honain, soon after
the reduction of Mecca. _Abbas_ was not only a great com-
mander, but an eminent doctor of the Mussulman law, and
read lectures upon every chapter of the Koran, as Mahomet
pretended to receive them from heaven. He died in 653,
and his memory is held in veneration among the Mussulmen
to this day.

_Abbas Abdallah_, Ela, was the grandson of Abd-
almotalleb, and the most considerable of all the doctors among
the Mussulmen. He is said to have acquired from the an-
gel Gabriel a perfect knowledge of the Koran, when he was
ten years of age, and was honoured with the title of Tar-
giuran al Koran, or interpreter of the Koran. He died in the
68th year of the Hegira, and was very much lamented.

_Abbas I_. Shah, surnamed the _Great_, was the third son
of Khodabandeh, and the 7th king of Persia of the race of the
Sohis. He succeeded _Imam III_. who had murdered their eldest brother _Amin Hamzeh_, and who was himself
put to death after a short reign of eight months, in the year
1585. These two princes are not commonly reckoned in
the number of Persian kings. His first thoughts and actions,
after he ascended the throne, if we except the murder of his
tutor Mursil, to whom he was indebted for his life and crown,
were directed to the recovery of those provinces which the
Turks and Tartars had taken from his predecessors. By a
series of victories, he defeated Abdallah, khan of the Uf-
becks, who invaded Khorasan, and the Ottoman Turks, from
whom he took _Taurus_; subdivided the provinces of Shirwan
and _Ghilian_; took possession of the kingdom of Lur, com-
peting a great part of Persia proper; invaded and secured
Georgia, and captured _Bagdad_, and _Orumz_ in the Persian
gulf. After a prospers reign of 43 years, during which he
consolidated the divided provinces of the Persian empire, and
considerably enlarged its extent, he was seized with a dan-
gerous distemper at Peramb, in the province of Mazen-
deran, supposed to have been the effect of poison, and died
a life of 70 years in 1628. Having appointed his grandson
for his successor, he ordered his death to be concealed to
the throne was secured to him; and for this purpose he
directed his funeral obsequies to be performed at three dif-
ferent places at once, and that his body should be exposed
every day in the hall of justice, seated in a chair of state,
with the eyes open, and his back to the hangings, behind
which stood a person who contrived to answer any questions
that were proposed. By this artifice his death was kept
secret for six weeks. The memory of Shah _Abbas_ has been
held in high veneration by the Persians, and they speak of
him as the greatest prince their country has produced for
many ages. He was wise and valiant, attentive to the poor,
and rigorous in the administration of justice. He adopted
all possible measures for promoting the wealth and good
government of his dominions; and took great pains to intro-
C 2 duc
ABBE, in Geography, a sea-port town of Norway, about 60 miles south-west of Christiania, situate on a small bay, in which are three islands.

ABBER-LOUGH, a lake of Lorne, in Argyleshire, in Scotland.

ABBESS, the superior of an abbey, or convent of nuns. The abbess has the same rights and authority over the nuns, that the abbot has over their monks. Her sex, indeed, does not allow her to perform the spiritual functions annexed to the priesthood; but in some instances the abbess has the privilege of commissioning a priest to act for them: and they have even a kind of episcopal jurisdiction.

F. Martene, in his treatise on the rights of the church, observes, that some abbesses have formerly conferred their nuns. But he adds, that their excessive curiosity carried them such lengths, that there arose a necessity of checking it.

St. Bafil, in his rule, allows the abbess to be present with the priest at the consecration of her nuns.

Before the conquest, abbesses were summoned to the Wittenagemote, and they assisted in the deliberations of ecclesiastical councils.

ABBEYBELL, or ABBEY, a monastery, or religious house, governed by a superior under the title of abbot, or abbess.

In our ancient statutes the word is sometimes also written abbeth. By 31 H. VIII. c. xii. abbatia is given to the king.

Abbeys differ from Priories, in that the former are under the direction of an abbot, and the latter of a prior; but abbot and prior (we mean a prior conventual) are much the same thing, and differ in little but the name.

One third of the coal bequests in England were anciently by the pope's grants, appropriated to abbeys, and other religious houses; which, upon their dissolution under King Henry VIII. became lay-leases. For a farther account and an estimate of the number and value of religious houses abolished and surrendered in this reign, see Monastery.

ABBEY-BOYLE, in Geography, a town of Ireland, in the county of Roscommon, and province of Connacht, famous for an old abbey. W. long. 8° 32'. N. lat. 56° 54'.

ABBEYHOLM, a town in Cumberland, is said from an abbey built by David king of Scots. It is situated on an arm of the sea, and is 16 miles S. W. of Carlisle. W. long. 3° 29'. N. lat. 54° 53'.
ABBEYMILTON, or MIDDLETON, an ancient, but
mean town in Dorsetshire, which had formerly an abbey
and a market, and which is 12 miles N. E. of Dorchester.
W. long. 2° 29', N. lat. 50° 51'.

ABBIANY, a town on the coast of Guinea, in Africa,
at the distance of three leagues from Tebbo.

ABBIANI, or the Baliol, wear monk clothes, and
were celebrated in 1205, and died in 1715, at the age
of 75 years. He was distinguished by fertility of inven-
tion and correctness of design. His body was free, and
his touch light; he executed with expedition, and
performed with equal beauty, in fresco and oil. Pilkington's
Ditt.

ABBON, in Biography, a monk of St. Germain-des-
Pres, who composed, in barbarous Latin verses, a relation
of the siege of Paris by the Normans towards the close of
the 9th century. He was more distinguished as a faithful
historian than as a good poet. His poems were published in
the second volume of Duchiene's collection, and have been
more correctly printed, with notes, by Duplessis, in 1753.

Biog. Dict.

ABBON, De Flurio, was born in the territory of Or-
leans. After devoting himself with ardour to the study of
almost every art and science, and obtaining distinguished
reputation in the schools of Paris and Rheims, he was elected
abbot of the monastery of Flurio, of which he was a monk.
He wrote an Apology for his conduct against the accu-
atious of his enemies, which was addressed to the kings
Hugh and Robert; to whom he also dedicated a collection of canons
on the duties of kings and subjects. The collection of his
letters and canons, and his apology, were published in
1682, in folio. He was slain in a quarrel that arose between
the French and Gascons at Recole in Gascony, in 1004.

Gen. Dict.

ABBOT, or Abbai, originally derived from the Hebrew
Ab, father, signifies the superior of a monastery of monks
created into an abbey or prelacy.

Abbots were really distinguished from the clergy, though
frequently confounded with them, because they were a
degree above laymen. St. Jerome, writing to Hicio-
dorus, says expressly, alia monitarum jbm causa, alia clericorum.

In those early days the abbots were subject to the bishops,
and the ordinary pastors. Their monasteries being remote
from cities, and built in the farthest solitudes, they had no
share in ecclesiastical affairs. They went on Sundays to the
parish-church with the rest of the people, or, if they were too
remote, a priest was sent to them, to administer the
Sacraments, till, at length, they were allowed to have
priests of their own body. The abbot, or archimandite, was
usually the priest; but his function extended no farther than
to the spiritual assistance of his monastery, and he remained
still in obedience to the bishop. In process of time, as
many of them were persons of learning, they opposed the
heresies that sprang up, which induced the bishops to fix
them near, and in the cities.

The abbots soon laid aside their former plenipotence and
simplicity, and endeavoured to be independent of the bishops,
which occasioned some severe laws to be made against them
at the council of Chalcedon: notwithstanding this, in time,
many of them carried the point of independency, and got
the appellation of lord, with other badges of the episcopate,
particularly the mitre.

Hence arose new species and distinctions of abbots: mitred,
and not mitred; croziers, and not croziers; temporal
abbots, cardinal abbots, &c.

Abbots, Mitred, were those privileged to wear the
mitre; and also allowed a full episcopal authority within
their several precincts.—Among us, these were also called
abbots foreigne, and abbots general; and they were lords
of parliament. Of these Sir Edward Coke reckons twenty-
sevein, and Selden twenty-six, in England, before two mitred
priests.

The rest, who were not mitred, were subject to the dio-
cesan.

Abbots, Croziers, are those who bear the crozier, or
palfonal staff.

Abbots were likewise distinguished into abbots elective,
and abbots prescriptive: but are now chiefly distinguished in
regular and commendatory.

Abbots, Regular, are real monks, or religious, who
have taken the vows, and wear the habit of the order.

Abbots in commendam, are seculars; though they have
 undergone the torture, and are obliged, by their bulls, to
take orders when they come of age.

Though the term commendam intimates, that they have
only the administration of their abbeys for a time; yet do
they hold, and reap the fruits of them for ever, as well as
the regular abbots.

Their bulls give them a full power tan in spiritualibus
quant in temporibus: and yet it is true that the commenda-
tory abbots do not perform any spiritual offices; nor have
they any spiritual jurisdiction over their monks. So that
the phrase in spiritualibus, is rather something of the Roman
style than a reality.

The ceremony whereby abbots are created, is properly called
benediction; or sometimes, though improperly, consecration.

It anciently consisted in clothing them with the habit called
evullas, a covert; putting the pastoral staff in their hands, and
the hoes called pedales, or pelves, on their feet. These par-
ticulars we learn from the Ordo Romanus of Theodore, archi-
bishop of Canterbury.

Abbort is also a title, which has been given to certain bi-
fests, because their fees had originally been abbey;
and they were even elected by the monks: such are those of Can-
terbury, and Montreal in Sicily.

Abbort is also a title borne by several magistrates, and
other lay-persons. Among the Genefs, one of their prin-
cipal magistrates was called the abbot of the people.

In France, particularly about the time of Charlemagne,
there were several lords and courtiers, who having the super-
intendency of certain abbeys committed to them, were flyled
abbascommites, or abbey-counts.

ABBOT, George, Archbishop of Canterbury, was born
Oct. 29, 1562, at Guildford in Surrey. Having passed
through the rudiments of literature in his native town, he
was removed, in 1578, to Baliol college at Oxford. In
1583, he was elected probationer fellow of his college;
and having passed through the usual course of gradua-
tion, he took orders and became a celebrated preacher in
that university; and in 1597 he was elected Master of Uni-
versity College. In 1600, and again in 1603, he was Vic-
cancellor of the university, and discharged the duties of
this office with general approbation. In the succeeding year
the translation of the Bible, now in use, was undertaken by
the direction of king James; and Dr. Abbot was the second
of eight learned divines in the university of Oxford, to whom
the care of transduing the whole New Testament (excepting
the epistles) was committed. In 1605 he was again Vic-
cancellor. After the decease of his patron, the Earl of
Dorset, in 1668, he became chaplain to Geo. Hume, Earl of
Dunbar, and accompanied him this year to Scotland,
to assist in establishing an union between the Scots and
English churches; and in conducting this business he ac-
quired
ABBOT, Robert, brother to the former, born at Guildford in 1560, and completed his studies at Balacl college in Oxford. He took his degree of Master of Arts in 1582, and became a distinguished preacher, to which his preferment was owing. In 1594 he became no less eminent for his writings. In 1597 he took his degree of Doctor in Divinity; and in the beginning of the reign of King James he was appointed chaplain in ordinary to his majesty, who ordered the doctor's book, *De Antichristo*, to be printed with his own commentary on the Apocalypse. He was elected master of Balacl college in 1609, and in 1612 his majesty appointed him regius professor of divinity at Oxford. The reputation which he acquired by his lectures induced his majesty to name him for the see of Salisbury, and he was consecrated by his brother at Lambeth, Dec. 3, 1615. He found the cathedral falling into decay, and applied the sum of 500l, which he obtained from the prebendaries, towards repairing it. Here he devoted himself with exemplary industry to the duties of his function; but his close application to study brought upon him the gravel and stone, which terminated his life on the 2d of March 1617, in the 58th year of his age. He was buried over-against the bishop's seat in the cathedral. Dr. Fuller (in his Worthies of England) says, speaking of the two brothers, "that George was the "more pliable preacher, Robert the greater scholar; "George the ablest statesman, Robert the deeper divine; "gravity did frown in George, and smile in Robert." His writings were numerous, and many of his MSS, were given by Dr. Corbet, who married his grand-daughter, to the Bodelian library.

There was another Robert Abbott, a minuter, and author of several devout pieces, who was fearcely a writer before the bishop died.

ABBOTS-
ABBOTS-BROMLEY, in Geography, a town of Staffordshire, with a market on Tuesday. W. long. 1° 2'. N. lat. 51° 5'.

ABBOTSURY, a small town in Dorsetshire, with a market on Thursday. W. long. 1° 17'. N. lat. 50° 40'. The abbey near this town was founded by a Norman lady about the year 1026; and Edward the Confessor and William the Conqueror were benefactors to it.

ABBOTS-Castle, or Apewood-Castle, an old fortification, in Staffordshire, seven miles from Wolverhampton, on the north side of the road from Shrewsbury to London, situated on a lofty round promontory, and a steep ridge of hills, which extend a mile in length, and are supposed to have been one continued fortification, and a work of the ancient Britons.

ABBOTS-LANGLEY, a village in Herts, four miles from St. Albans, famous as the birth-place of pope Adrian IV.

ABBREVIATION of Adjudication, in Scots law, an abstract or abridgment of a decree of adjudication, which is recorded in a register kept for that purpose.

ABBREVIATION, or Abbreviation, a contraction of a word, or passage, made by dropping some of the letters, or by substituting certain marks, or characters, in their place.

A late ingenious writer on the subject of grammar distributes the parts of speech into words, necessary for the communication of our thoughts, which are the noun and verb, and abbreviations, employed for the sake of dispatch. These latter, he says, are in the strict sense of the term, parts of speech, because they are all useful in language, and each has a different manner of signification. He inclines, however, to allow that rank only to the necessary words; and to include all the others, which are not necessary to speech, but merely abbreviates of the first sort, under the title of abbreviations. Words, he says, have been called suged, whence the title of this work, viz. ἡννα κάλλος; and they well deserve that name, when their abbreviations are compared with the progress which speech could make without these inventions; but compared with the rapidity of thought, they have not the smallest claim to that title. Abbreviations are employed in language three ways; in terms, in sorts of words, and in construction. Mr. Locke's Essay is the best guide to the first; and the authors who have given particular explanations of the last are numberless; the province of this author is confined to the second class of Abbreviations. See ENTE ITHENIOPO; or, The Diversions of Parley, c. i. p. 39. &c.

Lawyers, physicians, &c. use abundance of abbreviations partly for the sake of expedition, and partly for that of brevity. A list of the principal abbreviations, in the several arts and faculties, see under Character.

Of all people, the Rabbis are the most remarkable for this practice; so that their writings are unintelligible, without an explanation of the Hebrew abbreviations. The Jewish authors and copyists do not content themselves with abbreviating words, like the Greeks and Latins, by retrenching some of the letters, or syllables thereof; but they frequently take away all except the initial letters. Thus, רז for ל, and ש for ו, מ, מ, and מ, according to the place in which it is found.

But still further, they frequently take the initial letters of several succeeding words, join them together, and adding vowels to them, make a barbarous sort of word, representative of all the words thus abridged. Thus, רָבִּי שֶׁבֶלֶם בָּרוּךְ, in the jargon of Hebrew abbreviations, is called רַבִּי; and רָבִּי מִשְׁכֵּר בֶּן מַעֲנִית, is Rambam. Mercerus, David de Pomis, Schindler, Buxtorf, &c. have given explanations of such abbreviations. The most copious collection of Roman abbreviations, is that of Scortiūs Urfatu: Scortiūs Urfatu, ejusdem, de notis Romanorum commentariorum. ABBREVIATION of Fractions, in Arithmetic and Algebra, is the reduction of them to lower terms. See Fraction.

ABBREVIATOR, in a general sense, a person who abridges any large book into a more narrow compass.

ABBREVIATOR is more particularly used for an officer in the court of Rome, appointed an attinent to the vicar-canon, for drawing up the pope's briefs, and reducing petitions, when granted by the pontiff, into proper form, for being converted into bulls.

The Abbreviators are suppposed by Chammari, in his two volumes on their entitution, office, &c. to be the precedors of the cancellarii in the imperial household, or of the seven notarii, that we have been placed by pope Clement I. in the seven quarters of Rome, to write down the acts of the martyrs within their several diocets.

The abbreviators form a college of seventy-two persons, divided into two ranks; one called abbreviators de parte minores, who are twelve in number, all prelates; the other, abbreviators de parte magores, called also examinatores, who may be lay-men.

ABBES HEAD (St.), in Geography, a promontory of Berwickshire in Scotland, in the southern extremity of the Fifth of Firth. N. lat. 55° 55'. W. long. 1° 57'.

ABBATT, Thomas, in Biography, was born in 1738, at Ulm, and died in 1766, at Bieleberg, a privy-counsellor of the Count of Schamburg-Lippe. Besides his translation of Psalm and German, he also published a volume "concerning Merit," and another "concerning Death for one's country," which are well esteemed. He is one of the earlier German writers, who retain a classical rank, and would have probably excelled as an historian, if his life had been prolonged. Gen. Biog.

ABBETTENAU, in Geography, a market town in the archbishopric of Salzburg, about 20 miles S. E. of the city of Salzburg. N. lat. 47° 32'. E. long. 12° 56'.

ABBUTTALS. See Abbuttals.

ABCEDARY, Abecedarian, or Abecedarian, is sometimes applied to compositions whose parts are disposed in the order of the letters of the alphabet.

In this sense abecedarian is synonymous with alphabetical. Thus we meet with abecedarian psalms, lamentations, prayers, and the like, chiefly among Hebrew writers, which makes it probable they were the inventors of this species of composition.

This is the first and most manifest indication of verse in the Hebrew poetical books. Poems of this kind consist of 22 lines, or syllables of lines, or periods, or stanzas, according to the number of the letters in the alphabet; and every line, or stanza, begins with each letter in its order. This artificial contrivance was intended for the animation of the memory, and was chiefly employed in subjects of common use, as maxims of morality and forms of devotion. There are still extant in the books of the Old Testament twelve of these poems, e.g. Psalm xxv. xxxiv. xxxvii. cxxi. cxxii. cxiv. Prov. xxx. 10—11. Lament. i. ii. iii. iv. Three of these, e.g. Pt. cxix. exi. Lam. iii. are perfectly alphabetical, in which every line is marked by its initial letter; in the other nine every stanza only is so distinguished. With respect to the three former it may be observed, that the whole poem is distributed into stanzas; two of them, e.g. Pt. cxii. into ten stanzas each, all of two lines, except the two last stanzas in each, which are of three lines; and the third, e.g. Lam. iii. consists of twenty-two stanzas, of three lines, the initial letter of every stanza being also the initial letter of every
every line of the stanza. In these three poems, the lines thus determined by the initial letters, in the same way, are invariably equal to one another in length, in the number of words nearly, and probably in the number of syllables, and the lines of the same stanza correspond one with another, in the matter and the form, in the sense and the construction. Of the other nine poems, five, viz. Pf. xxxv. exx. exxii. Prov. xxxvi. Lam. iv. consist of stanzas of two lines; two, viz. Lam. t. ii. of stanzas of three lines; and one, viz. Pf. xxxv. of stanzas of four lines; allowing for irregularities, which are probably owing to the mistakes of transcribers. These stanzas likewise naturally divide themselves into their distinct lines, the sense and construction pointing out their limits, and the lines corresponding one with another in matter and form, as in the poems more perfectly alphabetical. In these however, two of them, viz. Pf. exx. exxi. have the lines shorter than those of the third, Lam. i. by about one-third, or almost half; and of the other nine poems, the stanzas of which are only alphabetical, three, viz. Lam. i. ii. iv. consist of the longer lines, and the six others of the shorter.

From these examples it may be inferred, that the poems, perfectly alphabetical, consist of verses properly so called, regulated by some regard to harmony or cadence, measure, numbers, or rhythm. The other poems, which are divided into stanzas by the initial letters, are compositions of the same kind, and equally consist of verses. We may also conclude from these perfectly alphabetical poems, that the Hebrew verse did not consist in rhyme, or linear and correspondent sounds at the ends of the verses, but in some sort of rhythm, probably some sort of metre, the laws of which are altogether unknown and undiscivable. Nevertheless the peculiar form of composition is so observable, as plainly to distinguish in general the parts of the Hebrew scriptures which are written in verse from those which are written in prose. See Lowth's Preliminary Dissertation to his Hebrew, p. 4. &c.

ABCEDE or Abscere, from abed, to keep aground, a term in Surgery, signifying nearly the same thing as to suspend. An abed surface, is a part whose texture has been altered, vitiated, or reparted by the formation of purulent matter. The mere contiguity of purulent matter to a solid part of the living body, will sometimes effect a dissolution of its natural structure: this may arise either from the unwholesome quality, or the mechanical pressure, of the confined pus. See Abscedentia, Abscess, Pus, and Suburation.

ABCOURT, in Geography, a town near St. Germain, four leagues from Paris, famous for a brisk chalybean water, impregnated with fixed air and the fossil alkali, and resembling that of Spa.

ABDALLAH, formed of abd, slave, and allah, God, and denoting the slave of God, in Biography, a younger son of Abd-Motalib, and the father of Mahomet. He was the most beautiful and modest of the Arabian youth, and when he married Amina, of the noble race of the Zibrites, 200 virgins are said to have expired of jealousy and despair. Gibbon's Hist. vol. ix. p. 255.—Several other eminent Arabians bore the same name.

Abdallah, Ebn Salem, was a Jew, intimate with Mahomet, and an early convert to his religion. He is said to have assisted him in compiling his pretended revelations.

Abdallah, Ebn-Zobeir, having ingratiated himself with the inhabitants of Mecca and Medina, by his religious zeal and engaging behaviour, was proclaimed Caliph, A. D. 682. He was recognised in all the provinces of the empire, except Syria and Palestine; and enjoyed his dignity nine years, till the 72d year of his age, and 73d of the Hegira. At this juncture Mecca was besieged, and the Caliph's spirits were supported by the attention of his mother Afsia, grand-daughter to the Caliph Abubeker, who, at the age of 90, administered refreshment to him and his soldiers at the beach with her own hand. At length, however, he took leave of his mother, and fell out on the enemy. Having killed many with his own hand, he was at last overpowered; and when he found the blood trickling down his face and beard, he is said to have repeated this verse from an Arabian poet: "The blood of our wounds falls not upon our heels, but our feet;" and he soon died. The avarice of this Abdallah gave rise to the proverb: "That there was never a brave man who was not liberal, till Abdallah the son of Zobeir." He is reported to have been so pious and so intent on his devotions, that a pigeon once alighted on his head, whilst he was thus employed, and sat long there without his perceiving it. Gen. Dict.

ABDALMOTALEB, the son of Mirvan, and fifth caliph of the race of the Omuridæ, succeeded his father in the 65th year of the Hegira, A. D. 685; and reigned 21 years. At the commencement of his reign he converted the temple of Jerusalem into a mosque, and directed his subjects to perform their pilgrimage to this place; because Abdallah Ebn Zobeir, who had been elected caliph by the Arabs, retained possession of Mecca. In the progress of his reign he concluded a treaty with the Greek emperor, reduced Peria, or rather Irak, under his dominion, and having failed to engage the submission of Abdallah by amicable conference, laid siege to Mecca, and took it. By this event he acquired possession of the peninsula of the Arabs, and became sole and absolute master of the Mollem empire. In the 76th year of the Hegira, he caused death and disasters, to be struck, with Arabic inscriptions upon them, which proclaimed the unity of the God of Mahomet. Before the time the former, or gold coins, had Greek, and the latter, a silver money, had Peria characters upon them. On this occasion he established a mint for coined in his own dominions. Abdalbane was deemed brave, learned, and wise, and was much more powerful than any of his predecessors; having subdued Abdallah Ebn Zobeir, and annexed Arabia to his empire; reduced to his obedience the territories of all denominations that appeared in arms against him; conquered India, or at least a considerable part of that vast region in the East; and in the west, penetrated with his victorious troops as far as Spain. He was buried at Damaiscus; and the government devolved on Al Wailid, the eldest of his fifteen sons, who extended the Mollem conquests, and rebuilt the temple of Medina in a style of extraordinary magnificence. Under the reign of this caliph the Greek language and characters were excluded from the accounts of the public revenue. If this change (says Mr. Gibbon, Hist. of the Decline and Fall of the Roman Empire, vol. x. p. 8. 8vo.) was productive of the invention, or familiar use of our present numerals, the Arabic or Indian cyphers, a regulation of office has promoted the most important discoveries of arithmetic, algebra, and the mathematical sciences. Abdalbene was avaricious to such a degree as to be denounced by some of his subjects, in derision, the father of a florin; and his breath was so fetid, that the flies which accidentally lighted upon his lips were poisoned by it; from which circumstance he was called the father of flies. Med. Un. Hist. vol. ii. p. 32. 8vo.

ABDALMOTALLEB, or Abd Motalib, the son of Hafem, the father of Abdallah, and grandfather of Mahomet, was, according to Abulfech, prince, or chief of the Koréish, during the war of the Elephant. Upon the death of the father of Mahomet, he took charge of his grandson;
grandson; and at his decease committed the care of him to his son Abu Tuleb, who was the guide and guardian of his youth. The life of Abdal Metallesch is said to have been prolonged to the age of 110 years; and he was the father of six daughters and thirteen sons.

ABDALONYMUS, descended from king Cinuvas, and of the royal family of Sidon, lived in obscurity, and fulfilled by cultivating a garden, when Strato had possession of the crown of Sidon. Alexander the Great having deposed Strato, wished to restore the race of Cinuvas, and having found Abdalonymus, he was convinced of his high descent from the apparent dignity of his person. Interrogating him how he bore his poverty, Abdalonymus replied, "I wish I may bear " my new condition as well. These hands have supplied my " necessities. I have had nothing, and I have wanted no " thing." Alexander was so much pleased with this reply, " that, besides believing upon what belonged to Strato, he augmented his dominions, and gave him a large present out of the Persian spoils.

ABDALS, in the Eastern countries, a kind of fains supposed to be inspired to a degree of madness. The word comes, perhaps, from the Arabic abdallah, the servant of God. The Persians call them demarch khoda, agreeably to the Latin way of speaking of their prophets and libys, q. d. "farenites Dra, raging with the God."

The Abdals are often carried by excess of zeal, especially in the Indies, to run about the streets, and kill all they meet of a different religion. The English sailors call this "running a mad," from the name of the instrument, a sort of poiagnard, employed on this occasion. D'Herbel. Bib. Or. p. 5.

ABDELAVI, in Botany, an Egyptian plant very like a melon, except that the fruit is more oblong, and acute at the extremities.

ABDELEUR, in Geography, an island in Africa, situate in the country of Anian, in the Indian Sea. N. lat. 11° 55', E. long. 51° 45'.

ABDERA, or Abdara, in Ancient Geography, a town of Bocotia in Spain, a Phcenician colony; now Adra or Alde- dra, to the west of Almeira in Granada.

ABDERA, a maritime town of Thrace, not far from the mouth of the river Nettus, on the call side. Solinus says, that Abdéra was founded by the fiffer of Diomedes, and took her name; but Stephanus (de Urb. tom. 1. p. 5.) ascribes the name to Abderus, one of the companions of Hercules, who was defeated by the fabulous horses of Diomedes. Herodotus (lib. 1. p. 168.) informs us, that Timeficus, the Clazomenian, attempted to lay the foundation of it, but he was prevented by the Thra- cians from accomplishing his purpose. The Thracians afterwards succeeded and settled in this place, in order to avoid the contempt of the Persians, which gave occasion to its being called "Abdera pulchra Tejorum colonia," signifying, that brave men will live anywhere rather than suffer oppression and fer- vitude. To this faying some fuppofe that Cicero alludes in his epiftles to Atticus, lib. 4. 7. The horses that fed on the grafs in the neighbourhood of this city were feized with madness, according to Pliny (Hist. Nat. tom. 2. p. 374. Ed. Hard.) In the reign of Callander, king of Macedon, it was so infected with frogs and rats that the inhabitants were obliged, for a time, to quit it. The Abderites were for some months, in the reign of Lydimades, afflicted with a fingular difeafe. It was a kind of burning fever, according to the decription of it given by Lucian, (Op. tom. 2. p. 1. Ed. Reitz.) which came to a crisis on the feventh day. During its continuance, the imaginations of those who were feized with it were disfacted, and they fancied themselves players; and they continued reciting verses from fome tragedy, particu- larly out of the Andromeda of Euripides, till the cold of winter terminated their delirium. Of the caufe of this dif- ease Lucian gives the following account. Archelaus per- formed the tragedy of Andromeda before the Abderites in a very hot furnace; feveral perfons were attacked with the fever on their leaving the theatre; and their imaginations being fully poffeffed with the dramatic incidents which had been exhibited, they could not forbear imitating Archelaus's action and declamation; and from them the fever was communicated to others by infection.

The Abderites were approached for want of wit and judgment; nevertheless many eminent perfons, as Protagoras, Democritus, Anaxarchus, Hegesippus the Philosopher, Nicae- nus the poet, and feveral others, were born in this city. It was formerly famous for its gold and silver mines; but it is now reduced to a mean place, on the Archipelago, called Polypsilo, Aspero, and Afrizone. There was another city of the fame name in Iberia, built by the Phcenicians, and now called Almeria.

ABDERAHMA, Abdirachman, or Abdalrahman, a Saracen viceroy in Spain, who revolted and formed an independent principality at Cordova. He had several successors of the fame name.

A viceroy and captain-general of this name led the Sa- cens and their followers into France, ravaging the country wherever they came; but at length he was met at Tours by Charles Martel, who had been reinforced by a body of Germans and Pepis; and, after many skirmishes, a gene- ral action took place, in which the Saracen army was totally defeated, and Abderahma was killed, with 370,000 Moors. This great event, which first broke the Saracen power, and taught the Europeans that they were not invincible, is placed by most writers in the year 732, Heg. 114. Mariana (Hist. Spain, l. 7. c. 2.) dates this battle in the year 734, twenty-one years after the conquest of Spain.

ABDERANA. See Ariana.

ABDEST, among the Moslemas, a peculiar manner of wailing, before prayer, entering the mosque, or reading the Alcoran; practised with some difference both by Turks and Persians. The word is compounded of the Persian ab, water, and djal, hand.

ABDIAS of Babylon, in Biography, a legend-writer, who had the effrontery to boast, that he had seen Christ, was one of the 70 disciples, had been eye-witness of the actions and prayers of several of the apostles at their death, and had followed St. Simon and St. Jude into Persia, by whom he had been made the first bishop of Babylon. But his forgery is easily detected; as he mentions Hecatus and Jud. Africanus, one of whom lived about 190 and the other 221 years after our Lord's ascension. His book, intitled Historia Certaminis Apoftolici, was published by Wolfgang Lazius at Bafil, in 1551, and has passed through several editions in other places. It may be seen, with notes, in Fabr. Codex. Apoc. N. T. part 2. p. 388.

ABDICARIA propofitoio, in Logic, is used for a negative proposition.

ABDICATION, Abdicatio, derived from abdicare, to renounce, the act whereby a magistrate, or person in office, renounces, and gives up the fame, before the legal term of service is expired.

Abdication is frequently confounded with renunciation; but, strictly speaking, there is a difference: abdicatio being done purely and simply; whereas renunciation is done in favour of some other person.

In this sense, Dioeclesian is said to have abdicated the crown; but Philip IV. of Spain renounced it. The parliament of England voted that king James II. having endeavoured
willed to subvert the constitution of the kingdom, by
break ing the original compact between king and people, and
avowing, by the advice of judges and other wicked persons,
substituting for fundamental laws, and withdrawing himself out of
the kingdom, has abdicated the government, and that the
throne is thereby vacated. This vote was passed by a great
mass of the commons; but was opposed in the house of lords.
They particularly objected to the word abdicated, and it was carried, that d\text{\textit{jus\text{\textit{c\textit{it}}}}} was more proper. The
commons adhered to their vote, and by their perseverance
obliged the lords to comply. The Scots convention voted
that king James, by his mal-administration and his abuse of
power, had forfeited (from \textit{f\text{\textit{j}}\text{\textit{s}}\text{\textit{f}}\text{\textit{i}}\text{\textit{s}}} in Latin) all title to the crown.

Abdication, among Roman Writers, is moreover
particularly used for the act whereby a father discarded or dis-
claimed his son, and expelled him the family.

In this sense the word is synonymous with the Greek
\textit{apokath\text{\textit{t}}}, and the Latin \textit{a f\text{\textit{j}}\text{\textit{um}} aliena\text{\textit{t}}}, or sometimes \textit{abrogatio}, and negatio; and means opposed to \textit{adoption}. It is
distinguished from \textit{emiseratio}, or disinheriting, in that
the former was done in the father's life-time, the latter
by will at his death: so that whoever was abdicated, was also
inheritor, but not vice versa.

\textbf{ADDIT. Causa\textit{e}}, are the secret or remote caufes of
diseases, which physicians of the dogmatic, or rational
feet, adhered, were necessary to be known, in order to
eventually a right method of cure.

\textbf{Abdomen}, in \textit{Anatomy}, derived from \textit{abdomen}, the
lower belly, or the cavity that is bounded at its upper
part by the diaphragm, or midriff, by which it is se-
parated from the thorax; and at its lower part it is di-
nected from the pelvis by a circular ridge of bone, which
is considered as the rim of the latter cavity. The spine
and lumbar muscles form the back part of the abdomen,
whilst the sides and front are completed by muscles, named
\textit{abdominal}. The abdominal muscles are the \textit{obliqui ex-
terni and interni}, the \textit{recti}, \textit{transversi}, and \textit{pyrami-
dals}. This great cavity is divided by anatomists in-
to certain regions or districts, that they may be able easily
and accurately to describe the situation of the contained
viscera. The divisions are in a great degree arbitrary; one
imaginary line is drawn across from the greatest convexity
of the cartilage of the 5th or half true rib; another from
these projecting points of the hip-bones, named the anterior
and superior spinous processes. That part of the cavity,
which is situated above the upper line, is termed the epi-
gastric region; that below the lower one, the hypo-
gastric. The space included between the lines, is called
the umbilical region. These regions are again subdivided:
the sides of the epigastric region, which extend beneath
the cartilages of the ribs, being named hypochondria, and
the small depression at the upper part, jut over the en-
form cartilages, being washed with the bones of the thorax;
the part of the flanks, commonly by the Eng-
lish. The sides of the umbilical region are named the dia-
or flanks, and the back part the loins. The sides of the
hypogastric region are the groins, and the lower part in
front, the pubes. The boundaries of the abdomen are every
where limited by a thin and elastic membrane, named peri-
toneum, which is also spread over the contained viscera.
From the smooth glossy surface of this membrane, a small
quantity of an aqueous fluid is poured forth, which keeps
the bowels separate from each other, and from the sides
of the cavity in which they are contained. All the abdo-
nal viscera, except the kidneys, are employed in the di-
 gestion of our food, the conversion of it into chyle, and the
expulsion of the residue. The viscera more directly em-
ployed in the chylopoietic function, are the stomach, and
the small and large intestines. The small intestines are divided
into the duodenum, the jejunum, and the ileum; the large
into the cecum, colon, and rectum. The liver, with its
gall-bladder, the spleen, and pancreas, are subservient to
the functions of the alimentary canal. Behind the peritoneum
in the loin, we find the kidneys, which are also abdomin
al viscera. Several processes of peritoneum prefent themselves
in the cavity of the abdomen, and claim attention, as the
great and small omentum, the mesentery, and others of less
importance.

The abdominal viscera are prefixed upwards towards the
hollow cavity of the chest, by the abdominal muscles, in
expiration; they are pushed down again by the action of
the diaphragm during inspiration. When both the dia-
aphragm and abdominal muscles act at the same time, a pre-
fure is made on all the abdominal viscera, which is occlu-
sionally employed to aid particular parts in performing their
office; to afford, for instance, in the expulsion of urine and
forces, and in parturition. The effort by which this preasure
is made, we call straining, and it is commonly used to
prone some of the viscera from their natural situation in
the cavity of the abdomen. The parts thus protruded from
external tumours, and are called herniae or ruptures. Cough-
ing, in which the abdominal muscles alone comprefs the
viscera, and tend to diminish the cavity of the abdomen,
produces, in a gradual manner, such protrusions.

The principal nutrient arteries of the parietes of the
abdomen, are the lower intercostal, the lumbar, and cir-
runcated arteries of the ilium, at the sides; whilst the
epipleural, and internal mammary arteries are distributed
front and communicate by their minute branches with the
former vessels. These arteries have corresponding veins.
The nerves supplying the parietes of the abdomen arife
from the lower dorso-lumbar nerves, and their branches
are distributed in a circular manner round that cavity.
For an account of the large arteries, veins, nerves, and ab-
dominal vessels, see \textit{Rami\text{\textit{fication of Arteries}},
Veins, and Nerves, and Distribution of the Absorbing
Vessels}.

\textbf{Abdomen}, in \textit{Medicine}. This part of the body is liable
frequently to become the seat of several important and
dangerous \textit{Diseases}. Some of these are real affections of this
cavity, while others, though commonly referred to it by
the patient, more properly belong to the \textit{prima\text{\textit{v}}}, or the
organs of generation and urine.

All these diseases, with the manner of treating them, will
be found under some of the following heads or terms, \textit{viz.}

\textbf{1. Inflammations of the abdominal viscera}, including
Inflammation of the Diaphragm, see \textit{Diaphragmitis}; of
the Liver, \textit{Hepatitis}; of the Stomach, \textit{Gastritis}; of the
Peritonitis, \textit{Peritonitis}; of the Intestines and Mucous
\textit{Enteritis}; of the Bladder, \textit{Cystitis}; of the Kidneys,
\textit{Nephritis}; and of the Womb, \&c., \textit{Hysteritis}.

\textbf{2. Painful or Spasmodic Affections}, referred to the abdo-
nen by the patients, and not attended by inflammation or
fever, will be found under \textit{Cardiologia} and \textit{Gastro-
dinia}; pain in the region of the Romach, under \textit{Enterody-
\textit{Gout}, and \textit{Worms}.

\textbf{3. Other Diseas} of the \textit{Prima\text{\textit{v}}}, or Intestines, will be
included under \textit{Vomiting, Cholera, Diarrhoea, Li-
enteria}, and \textit{Dysenteria}.

\textbf{4. Dropsies of the abdomen} will be treated of under
\textit{Ascites, Hydrops ovarii}, and \textit{Tympanites}.
ABDOMEN, Chirurgical Diseases and Operations of the. We do not here propose to treat at large of all the local disorders to which the belly is liable, but only to enumerate those of more frequent occurrence, and the operations necessary for their removal. They may be divided into internal and external. The latter affect the muscles and common integuments chiefly; the former are principally seated among the abdominal viscera. Many diseases, however, are common both to the internal and external parts of the abdomen; as inflammation, suppuration, ulcers, hemorhages, tumors, and wounds of various kinds, &c. See each of these articles in their respective places.

The abdomen and its contents are subject to certain diseases, either of a peculiar nature, or requiring peculiar treatment on account of their situation. When the external segments, from being dilated or ruptured in any part, permit the bowels to force their way through them, an hernia is formed, which must be replaced in its natural position. See Hernia. When an accumulation of fluid happens within the belly, so as to prove inconvenient or dangerous, the operation of tapping, technically named paracentesis, is required for its evacuation. See Dropsy. Sometimes the intestinal canal is preternaturally contracted, forming a stricture; and is dilated with flatus, which constitutes the tympanites; or is reflected within itself, forming the disease called intussusception. The liver often inflames and suppures, or becomes indurated and feverous. The womb is liable to be accreted and cancerous, or may suffer during parturition. See Scirrhus and Cancer. The glands of the mectenery will likewise inflame, suppitate, and enlarge to a great degree. Collections of pus may form upon the muscles of the loins; calculi within the kidneys, or the urinary and gall bladder; varicose swellings and aneurysms in the blood-vessels, &c. See Psomas or lumbar abscess, lithotomy, varicocele, and aneurism. Several chirurgical operations are also peculiar to the abdomen and its contents; for example, gastorrhaphy, gastrotomy, lithotomy, and the cesarean section.

All these several disorders and operations are particularly explained in other parts of this work, under their appropriate denominations, to which we therefore refer our readers.

Abdomen of insects. See insects.

Abdominal rings, in anatomy, an aperture through which the peritoneal vessels pass in men, and the ligamenta rotundata uteri in women. It is formed by the tendinous fibres of the my股东 obliquus externus abdominis, which are separated from each other near the os pubis. See obliquus, &c.

Abdominales, in the Linnean system of ichthyology, an order of fish, having the ventral fins placed behind the pectoral in the abdomen, and the branchia occluded, and comprehending sixteen genera, and one hundred and ninety-five species.

Abd. labium, in anatomy, a name given by Spigelius to a muscle, which he also calls the secundus ad latera trident. This is the levator anguli oris of Albinus, and the caninus elevator or levator labium communis of others.

Abducens, in anatomy. See Abductor.

Abduction, in law. See forcible abduction, kidnapping, and ravishment.

Abduction, in logic, a kind of argumentation, by the Greeks called apagoge; wherein the greater extreme is evidently contained in the medium, but the medium not so evidently in the lesser extreme as not to require some farther medium, or proof, to make it appear.

It is called abd. from ab, from, and in addition to draw; because from the conclusion, it draws us on to prove the proposition affirmed.

Thus, in the syllogism, "All whom God abduces are free of sin; but God abduces all who are in Christ; therefore, all who are in Christ are free of sin." The major is evident; but the minor, or assumption, is not so, without some other proposition to prove it; as, "God received faithful affection for sin by the sufferings of Jesus Christ."

Abduction, or Abruptus, in surgery, denotes a kind of tranverse fracture, in which the broken extremities of the bone recede from each other. Cokou calls this species of fracture exumbilis; but Celsius Aureolus, by the word Abductor, means a brain or violent dilation of a muscle, and speaks of it as a cause of chronic pain.

Abductor, or Abducent, compounded of ab, from, and ducere, to draw, in anatomy, a name common to several muscles, whose action is the withdrawing, opening, or pulling back, the parts to which they are fixed. Their antagonists are called Adductors.

Abductor auricularis. See abductor minimi digitii manus.

Abductor auris, or bicaudalis. See retrahens auriculam.

Abductor indicis manus, arises from the os trapezium, and from the superior part and inner side of the metacarpal bone of the thumb, and is inflected by a short tendon into the outer and back part of the first bone of the forefinger. Its use is to bring the forefinger upwards. This is the semi-interosseus of Winslow. Cowper calls it abductor pollicis; and Douglas says, that with respect to the thumb, it may be called adductor, and to the index adductor.

Abductor indicis pedis, arises tendinous and flabby, by two origins, from the root of the inner side of the metatarsal bone of the fore toe, from the outside of the root of the metatarsal bone of the great toe, and from the os cuneiforme internum; and is inflected tendinously into the inside of the root of the first joint of the fore toe. Its use is to pull the toe inwards from the heel of the toes.

Abductor minimi digitii manus, arises flabby from the os pisiforme, and from the parts of the ligamentum carpi annulare that is next to it; and is inflected tendinously into the inner side of the upper end of the first bone of the little finger. Its use is to draw this finger from the web. This is the hypothenar minor of Winslow, the extensor teres interni minimi digitii of Douglas, and the auricularis of others.

Abductor minimi digitii pedis, arises tendinous and flabby from the semicircular edge of a cavity in the inferior part of the protuberance of the os calcis, and from the root of the metatarsal bone of the little toe; and is inflected into the root of the first joint of the little toe externally. Its use is to draw the little toe outwards from the web. This is the parabularis major and metatarsus of Winslow.

Abductor sculi, arises from the bony partition between the foramen opticum and lacræum; and is inflected into the globe of the eye opposite to the outer canthus. Its use is to move the globe outwards. It is also called Indigutorius.

Abductor pollicis manus, arises by a broad tendinous and flabby beginning, from the ligamentum carpi anularis, and from the os trapezium; and is inflected tendinously into the outer part of the root of the first bone of the thumb. Its use is to draw the thumb from the fingers. Albinus names the inner portion of this muscle, Abductor brevis alter, and it is called Abductor and Thenar Ridiandi by Douglas.

Abductor longus pollicis. See interossus auricularis.

Abductor pollicis pedis arises flabby from the inside of the root of the protuberance of the os calcis, where it forms D 2 of the
He was born July 8th, 1714, and after a classical education became a student of theology in 1731, at Halle, under Mohsen, and afterwards at Halle, under Wolf and Baumgarten, where he often preached with great applause. He declined the theological profession and applied to medicine at Halle, and in 1741 was admitted to the degree of doctor at Königber in Prussia. On his return to Halberstadt he practised as a physician for half a century, and died Nov. 25, 1794. His practical translation of Juvenal into German, was published in 1768. One of his sons, vis. John Abel, a physician of Dusseldorf, has distinguished himself as a writer. Gen. Bing.

ABEL, Charles Frederick, an eminent musical composer and performer, was a native of Germany, and a disciple of Sebastien Bach. He left Dresden in a distempered condition in 1758, and travelled though Germany, supplying his necessities by his talents, till at length he arrived in England in 1759, where he soon gained notice and recompense, both as a public performer and as a private teacher. He had a salary of 200l. a year as chamber musician to her majesty, and his weekly concert, in conjunction with Bach, was liberally supported. He performed on several instruments: but he was chiefly attached to the violin da gamba. Dr. Burney, in the 4th volume of his History of Music, has given the following account of his composition and performance: "His compositions were easy and elegantly simple; for he used to say, 'I do not chuse to be always struggling with difficulties, and playing with all my might. I make my pieces difficult whenever I please, according to my disposition and that of my audience.' Yet, in nothing was he so superior to himself, and to other musicians, as in writing and playing an adagio; in which the most pleasing, yet learned modulstion, the richest harmony, and the most elegant and polished melody, were all expressed with such feeling, tact, and science, that no musical production or performance, with which I was then acquainted, seemed to approach nearer perfection. The knowledge Abel had acquired in Germany, in every part of musical science, rendered him the umpire in all musical controversies, and caused him to be consulted in all difficult points. His concerts and other pieces were very popular, and frequently played on public occasions. The taste and science of Abel were rather greater than his invention, so that some of his later productions, compared with those of younger composers, appeared somewhat languid and monotonous. Yet he preferred a high reputation in the profession till his death." Abel was irascible in his temper, and apt to be overbearing. He loved his bottle; and by excess of drinking, when he was labouring under a fitting of blood, he put an end to his complaint and to his life. He died in London, June 29, 1787.

ABEL-Keranim, or of the Vineyards, in Geography, mentioned Judges xi. 53. was, according to Eusebius, six miles from Philadelphia, otherwise Rabbath, the capital of the Ammonites. It was remarkable for its vines, whence the name; and it was probably the same with Abela, between Jabez and Gadara, near Pella; and the Abiba, mentioned by Polybius, (Hist. lib. v. p. 414. ed. Cursub.) among other cities of Galatia. See Abilene.

ABEL-Melohab, the country of Eliha, 1 Kings, xix. 16, about sixteen miles south of Scythopolis according to Eusebius. Near this place Gideon obtained a victory over the Midianites. Judges, vii. 22.

ABEL-Misrain, the mourning of the Egyptians in allusion to the lamentation for Jacob, called also the thril ling floor of Atad, Gen. i. 11. was thought by Jerome, and some others, to be the place afterwards called Bethalgala, at some distance from Jericho and Jordan westward.

ABEL-Shittim, or Abel-fatim, was situated in the plains of

the heel, and tendinous from the same bone, where it joins with the extensor; and is inserted tendinos into the internal of the skin, and root of the first joint of the great toe. Its use is to pull the great toe from the rest. This is the The pass of Window.

A postor=ors, or abductors, arise tendinos and flexly from the side of the root of the metatarsal bone of the middle toe to the body; and is inserted tendinos into the inside of the root of the first joint of the third toe. Its use is to pull the middle toe inward.

A posteres* or abduct.ors nervi, are names which have been given to the 6th pair of nerves, on account of their being distributed to the A postor muscles of the eye.

ABEC Flute. See Flute.

ABECEDARIAN. See Abecard.

ABEHELLE, Gafpar, in Biography, was born at Riez, in Provence, in 1648. He was much admired at Paris, in early life, for the brilliancy of his wit. He obtained the confidence of Marshal Luxembourg, who appointed him as his secretary; and he contributed, by his lively and animated conversation, to the amusement of the Prince of Conti and the Duke de Vendome. A very ugly wrinkled countenance, susceptible of a variety of comic expressions, gave a zest to his bon-mots and flories, and enabled him to produce mirth on various occasions. Abellle enjoyed a priory, and a place in the French academy. He wrote some odes and epistles, several tragedies, one comedy, and two operas. A certain prince observed of his tragedy of Cato, that if Cato of Utica should return from the grave, he would be no more Cato than that of the Abbe Abellle. He was held in low estimation as a poet. He died at Paris, May the 21st, 1718. His brother, Scipio, who died in 1697, was also a poet. He has left a good history of the bone's, published in 1687, in 12mo.; and he also published, in 1699, a treatise, in 12mo. Litude to his office as surgeon-major, under the title of the Complete Army Surgeon.

ABEL, in Scripture History, the second son of Adam and Eve, born in the second year of the world. His history is comprised in a very narrow compass. He was a shepherd, and offered to God the firstlings of his flock, and his sacrifice was accepted; whilst that of Cain, his brother, was rejected. This distinction exasperated Cain, so that he slew his brother. Although no religious respect is paid to his memory in the Greek churches, which have abolished feasts for every other patriarch and prophet, and his name does not occur in any one of the Roman martyrologies before the 10th century; he, as well as other saints, is made the object of worship in several Roman litanies, designed for persons at the point of death. Some calendars commemorate him on the 25th of March; others on the 24th of January; and others on the 26th of July. Among the Ethiopians he is honoured on the 28th of December. The poem, intitled "The Death of Abell," written in German by Geyer, and translated into various languages, has been much admired.

ABEL, Frederick Gotfried, M. D. the son of Caphar Abel, the historian, was alfeelor of the college of physicians, and member of the literary society at Halberstadt.
ABE

of Moab, opposite to Jericho, not far from Jordan. Here Moses encamped before the Israelites passed the Jordan under Joshua. Here also, subdued by Balaam, they wooed him with gifts, and were punished by the instrumentality of the Levites. Numb. xxxv. 1. &c. xxxviii. 49.

ABEL-TREE, or ABE TREE, in Botany, a species of poplar, with large leaves. This tree may be propagated by layers or cuttings, and also by suckers. Many advantages might be derived from planting it in boggy soils, where few other trees will thrive. The wood of it is useful for flooring or wainscoting rooms; and it is preferred for turnery-ware to any other, on account of its peculiar whiteness. The quickness of its growth, infinum that it will yield fruits of eighteen or twenty feet long in a year, renders it eligible in plantations that are designed for shade or shelter.

ABELA, John Francis, in Biography, was commander of the order of Malta. His book, intitled Mala illustrata, published in 1647, is a folio, and containing a description of Malta, and of its principal antiquities, is rare and curious. Bioi. Dict.

ABELARD, Peter, an eminent scholastic philosopher of the 12th century. He was the son of Berengier, of noble descent, and born at Palais, near Nantes in Brittany, in the year 1079. At the age of 16 he had acquired, under Roffele, the founder of the sect of the Nominalists, a considerable acquaintance with metaphysics and logic; together with a facility of thought and a fluency of expression, which qualified him for the literary contests in which he was afterwards engaged. Ardent in the profession of fame, and of that kind of science, which then prevailed, he settled at Paris, in the 20th year of his age, and devoted himself to the study of dialectics under William de Champeaux, called the venerable doctor. The matter and the pupil were for some time much attached to each other; but when the disciple preferred to contradict his teacher, and to enter into disputations with him, in which, according to the judgment of his fellow students, he was victorious, the vanity of Abelard was inflamed, and the jealously of Champeaux excited; and a separation became necessary. Thus flattered and encouraged, and possessing superior talents, both by nature and in consequence of sedulous application, Abelard, at the age of 22, determined to open a public school for himself; and the place which he selected was Melun, a town distant from Paris about ten leagues, where the court at that time often resided. Notwithstanding the competition and hostility of Champeaux, the young lecturer's school was thronged with auditors, who were highly gratified by his public performances. Farther emboldened by this success, he approached nearer to Paris, and removed his school to Corbeil, where he had an opportunity of triumphing over his former master, and of compelling him to retire. His application and activity, however, impaired his health, and rendered it necessary for him to withdraw from the public scene of literary contet. into his native country. After an absence of two years, he returned to Corbeil; where he renewed his lectures with such reputation, that the scholars of Champeaux deserted him; and where he obtained fresh triumphs over his envy and opposition. In the issue his victory was so complete, that Champeaux, who had assumed the monastic habit among the regular canons in the convent of St. Victor, and who was afterwards preferred to the See of Chalons, was constrained to relinquish the convent and to yield to the acknowledged superiority of his rival. Upon this Abelard quitted the school which he had established at the abbey of St. Genevieve, and directing his views to the study and profession of theology, removed to Laon, and placed himself under the tuition of Anselm. Here again the disciple, by the superiority of his talents and acquirements, excited the jealousy of this celebrated theologian; and after establishing his reputation by the lectures which he delivered, he was compelled to retire from Laon, and to remove to Paris. His lectures in this city, both in theology and philosophy, were attended by a great number of students, who referred to his school, not only from various parts of France, but from Spain, Italy, Germany, Flanders, and Great Britain. At the age of forty Abelard sacrificed the reputation which he had acquired, as an able disputant and popular preacher, to the love of pleasure, and disgraced himself by forming and executing a deliberate plan for the seduction of female innocence. During his residence at Paris, where he was acquiring influence as well as renown, he boarded in the house of Fulbert, a canon of the cathedral church, who had a niece called Heloise, about the age of 18 years, and equally celebrated for her beauty and literary attainments. The avaricious canon, wishing to have his niece instructed without expense, employed Abelard as her preceptor; but instead of improving her in the sciences, he betrayed his trust, taught her to write, and determined to seduce her. From this time Abelard became remnants in the performance of his public functions, and wrote nothing but amorous verses. The canon, deluded by his respect for the preceptor of his niece, remained ignorant of an amour, which became the subject of general conversation. In a little while, however, the marriage of Heloise discovered the culpable conduct of her lover, and roused the resentment of the infatuated uncle. She was soon removed to the house of Abelard's father in Brittany, and there delivered of a son. When the child was born, Abelard made a proposal to Fulbert of privately marrying his niece, to which the canon consented. Heloise, however, hesitated in accepting the offer, partly from a regard to the honour of Abelard, whose profession bound him to celibacy, and partly from a romantic notion, that her pietas ought not to submit to ordinary restraints. Abelard at last prevailed, and they were privately married at Paris; though it is said, that he protected to his uncle that she was not married, and that this was one cause of his unkind and severe treatment of her. Abelard made this plea for removing her from his house to the abbey of Benedictine nuns, in which she had been educated. The uncle, enraged with revenge, and hired ruffians, who forced their way into his chamber by night, and inflicted on his person a disgraceful and cruel mutilation. Abelard resolved that, as Heloise could no longer be his, she should never be another's, and demanded from her a promise to devote herself to religion. She submitted to the selfish and harsh injunction, and professed herself in the abbey of Argenteuil. On this occasion she exclaimed, in the words of Cornelia:

O maxime conjux!
O thalamis indigne meis, hoc juris habebit
In tantum fortuna caput: cur impia nupisti,
Si miserum factura fui? nunc accipe puerum,
Sed quas sponse lauan.


"Ah! my once greatest lord! Ah! cruel hour!
Is thy victorious head in fortune's pow'r?
Since miseries my baneful love pursues,
Why did I wed thee, only to undo?
But fee, to death my willing neck I bow;
Atone the angry gods by one kind blow."

Soon after this event Abelard assumed the monastic habit in the abbey of St. Denis. His scholars in Paris, however, intreated him to return to his school; and after some deliberation
Soilfois, the throw and 142. into His tame, but Peter 122, I the Abeam gathered for this, he was also required to read, as his own confession of faith, the Athenian creed, and to be confined in the convent of St. Medard. His persecutors became acquainted with his conduct, which occasioned general dissatisfaction; and Abelard was soon permitted to return to St. Denis. Here again he was pursued by his enemies; and having affected, that the patron of the convent and of the French nation was not Dionysius the Areopagite, but another St. Dionysius, bishop of Athens, he was accused to the bishop and the king, as a seducer of the order and an enemy to his country. On this occasion he made his escape, and fled to the convent of St. Ayoul at Provins in Champagne, the prior of which was his intimate friend. Hence he soon retired to a retreat in the forest of Champagne, near Nogent upon the Seine, where, in 1122, he erected a small oratory, which he dedicated to the Trinity, and which was afterwards enlarged and consecrated to the third person, the Comforter or Paraclete. His pupils in this retreat soon amounted to 600; but he was compelled to withdraw from this solitude, and, by the interest of the Duke of Brittany, he was elected superior of the monastery of St. Gildas, in the diocese of Vannes, where he remained for several years. The news of the convent of Argenteuil being dispersed about this time, Abelard invited Heloise, with her eight companions, to take possession of the Paraclete. Heloise accepted the invitation; she was chosen abbess of the new institution that was established; and in 1127, the donation was confirmed by the king. Whilst Abelard reigned at St. Gildas, the interesting correspondence occurred between him and Heloise, which is full extant; and he then wrote memoirs of his life, which came down to the year 1134. The letters of Heloise in this correspondence abound with proofs of genius, learning, and taste, which might have gathered a better age. Upon these letters Mr. Pope has formed his "Epistle from Eloisa to Abelard," a piece that has been highly celebrated for its poetical merit, but which deviates in many particulars from the genuine character and story of Heloise, and culpably violates moral propriety, as Mr. Berrington (Hist. Abelard, p. 243, &c.) has shown in his judicious critique. Abelard was, in this situation, accused to pope Innocent II. of noxious errors and mischievous designs. His accuser, the Abbot of St. Thierry, was challenged by Abelard to make good his accusation in a public assembly; and upon his delivering the heads of his accusation, Abelard, probably apprehending a popular tumult, rose up and exclaimed, "I appeal to Rome." The pope, in consequence of some person's intrigues, anticipated his arrival by pronouncing his opinions heretical, and sentencing him to perpetual silence and confinement. Abelard, in his way to Rome, called at Cluni; a monastery on the confines of Burgundy, where he was kindly received by Peter Maurus, the abbot; and here a reconciliation was effected between him and Bernard, abbot of Clairvaux, who had prejudiced the pope against him. Peter interposed with the pope in his favour, and obtained his pardon; and he was permitted to end his days in the monastery of Cluni. In this monastery, the cloistered philosopher was retired, studious, and devout; and his lectures were renewed and heard with applause. But his health and spirits were too feeble to bear the exertions which this service required. Although he was removed to the pure air of the priory of St. Marcouf, near Chalons, his debility and decay increased, and terminated his life in his 63d year, on the 21st of April 1142. His body was sent to Heloise to be interred in the convent of the Paraclete. Heloise survived her husband 21 years, a pattern of conjugal affection and monastic virtue. Of the character of Abelard, we shall subjoin the following extract from Enfield's account of him in the General Biography, vol. i. "The amour, which has given Abelard so much celebrity in the annals of gallantry, will certainly not entitle his name to a place in the tablet of moral merit; it will remain an eternal blot upon his memory. In Heloise, the criminality, though not obliterated, was palliated by youthful ardour and inexperience; and extreme sensibility, noble generosity, and disinterred invincible constancy, united to throw a veil over human frailty. In Abelard, every circumstance, instead of exciting, aggravated the offence. At forty, the key-day of the blood is tame, and waits upon the judgment." It was not a juvenile indiscretion of which Abelard was guilty, but, according to his own confession, the seduction of innocence, deliberately planned, and reluctantly executed. It was accompanied with breach of confidence, violation of duty, and degradation of character. Except in the grant of the Paraclete as an asylum to Heloise and her sisterhood, an uniform felicity appears in Abelard's conduct, which admits of no apology; unless we transfer the blame from the man to the profession, and reprobate that system of Superstition, which, by the unnatural injunction of clerical celibacy, has given birth to innumerable irregularities and enormities. Viewed apart from this disgraceful affair, Abelard appears with more advantage. His writings, indeed, will not give the reader a high idea of his genius or taste; but it cannot be questioned, that the man, who could foil the first masters of the age at the weapons of logic, could draw round him crowded and admiring auditors, and could collect scholars from different provinces and countries, whenever he chose to form a school, must have possessed extraordinary talents. He must be allowed the credit, not only of having made himself master of the philosophy and theology of the age, such as they were, but of having boldly advanced, beyond the time, into the region of new opinions. Had his love of truth been equal to his thirst of fame, and had his courage in adhering to his principles been equal to his ingenuity in defending them, his sufferings and persecutions might have excited more regret, and his title to honourable remembrance would have better established. Upon the whole, of Abelard it may, perhaps, with truth be said, that he was too vain to be truly great, and too selfish to be eminently good, and that his character is rather adapted to excite admiration than to command respect." His principal works, written in Latin, are, "An Address to the Paraclete on the Study of the Scriptures," "Problems and Solutions," "Seven on the Festivals," "A Treatise against Heresies," "An Explanation of the Lord's Prayer," "A Commentary on the Romances," "A System of Theology," and his letters to Heloise and to others. These, with some other pieces, were collected and edited from the MSS. of Amboise, in 4to. at Paris, in 1616. Bayle. Moreri. Berrington's Hist. of the Lives of Abelard and Heloise. Gen. Biog.

ABELLIANS, ABELONIANS, or ABELITES, in Ecclesiastical History, a sect in Africa, not far from Hippo, mentioned by St. Augustin (Oper. tom. vi. p. 14.) and supposed to have commenced in the reign of Arcadius and terminated in that of Theodosius. Their distinguishing tenet and practice were to marry, and yet live with their wives in a professed abstinence, without having any carnal commerce together.
together. 1 Cor. vii. 29. The learned have taken great pains to ascertain the principle upon which they acted, and the reason of their denomination, to very little purpose. But, in effect, it is more than probable, they took their name from Abel for no other reason, but because, like that patriarch, they had no issue: not that he lived in continence after marriage; but because he was killed before he had married, or died without issue. In order to perpetuate the sect, St. Austin informs us, (ubi supras,) that when a man and woman entered into this society, they adopted a boy and girl, who were to be their heirs, and to marry under the same obligation of continence, and of adopting two children of different sexes.

ABELICFA, in Botany, the name of a very tall tree, growing principally in Crete, called also fiantalbus adderianus, and pseudofantarum.

ABELL. John, in Biography, an English musician, who belonged to the chapel of Charles II. and continued in it till the revolution, when he was discharged, because he was a papist. After many rambles on the continent, and singular adventures, he returned to England; and, in 1701, published a collection of songs in several languages, which he dedicated to King William. It is said that this artift procured the secret of preferring the natural tone of his voice to extreme old age. Hawkins’s Hist. Mus. vol. iv. p. 455.

ABELLA, in Ancient Geography, a municipal town of Campania, near the river Chiusi, mentioned by Virgil, lib. vii. v. 740.) and by Silinius (lib. vii. v. 544.) and inhabited, according to Justin, (lib. xx. cap. 1.) by a colony of Chalcidians. The Vex Aevellana, or hazel-nut, takes its name, according to Macrobius, from this town. It is now a heap of ruins, near the town and castle of AVELLA. The ancient walls enclose a circuit of near three miles, and in the middle are the fragments of an amphitheatre; the environs are remarkable for the excellent quality of their fruit and honey. Swinburne’s Trav. vol. i. p. 162.

ABELLI, Lewis, in Biography, bishop and count of Rhodes, was born in the Vexin François, in 1603. Quitting his episcopal see after his promotion, he retired to St. Lazare, where he died in 1691, at the age of 88 years. His Medalla Theologica, in 2 vols. 12mo., is a book which has been often cited by prelates against Boffuet, because it supplied them with weapons against the catholic zeal of making converts. He wrote other books in Latin and French. Gen. Diet.

ABELLINUM, in Ancient Geography, a town of the Hirlipani, a people of Apulia, near the river Sabbato, between Beneventum and Saelurnum. Pliny calls the inhabitants Aevillenses Protopi, in order to distinguish them from the Aevillenses Marsi. It is now Avellino. E. long. 15° 20'. N. lat. 41°.

ABELMOLUCH, a species of the ricinus, or Palma Chryph.

ABELMOSCHI, or Abelmoschus, the musk seed; a small odoriferous seed brought from Egypt, chiefly used in perfumes. The herb comes from Martino. The plant which produces it is the Hibiscus Abelmoschus of Linnaus.

ABENAS, in Geography, a town in France, in Languedoc, and in the Lower Vivaris, situated on the river Ardech, at the foot of the Cevennes. E. long. 4° 43'. N. lat. 44° 40'.


ABENEL CAUBY, a fixed star of the second or third magnitude, in the fourth scale of the constellation Libra.

ABENEZRA, Abraham, in Biography, a celebrated

Rabbi, born at Toledo, in Spain, and called by the Jews, the wife, great, and admirable doctor, was a very able interpreter of the Holy Scriptures, and well skilled in grammar, poetry, philosophy, astronomy, and medicine. He was also a perfect master of the Arabic. His principal work is Commentaries on the Old Testament, which are much esteemed, and printed in Bomberg's and Buxtorf's Hebrew Bibles. His style is clear, elegant, concise, and much like that of the Sacred Writings. He generally adures to the literal sense, and always manifests genius and judgment; though his sentiments are sometimes erroneous. His Jezud Alor, which recommends the study of the Talmud, is the most rare of all his writings. His Poem on the game of Chess was translated by Dr. Hyde. Many other theological, grammatical, mathematical, and astrological works of this author remain in ancient libraries, and have not yet been edited. He died at Rhodes in 1174, or 1190, aged 75. Mafief. Heb. Gram. vol. ii. p. 30.

ABEN-MELEK, a learned Rabbi, whose work, intitled, The Perfection of Beauty, printed at Amsterdam, 1661, fol. in Hebrew, and translated into Latin in 1670, and in 1680, is a Commentary on the Bible, in which he confines himself to the explanation of the grammatical sense.

ABENOW, in Geography, a mountain of Snabia, thirteen miles from Flensburg, remarkable as the source of the Danube, and for giving name to a chain of mountains extending from the Rhine to the Neckar, and from the foreland of France to the city of Thorheim.

ABENRAD, a town of Denmark, in Skivwick, in a territory of its own name. It is situated on a spacious bay of the Baltic, surrounded by three high mountains, and has been lately much improved. E. long. 19° 14'. N. lat. 55° 6'.

ABENSBERG, a small town in the circle of Bavaria, on the river Abens, near the Danube. E. long. 11° 55'. N. lat. 48° 46'.

ABER, in Natural History, the name given by Adnunon to the Myrtus panicus of Linnaus, with a gibbous acuminate shell, 15 furrows, and a dentated margin. It is found on the western shore of Africa.

ABERARTHY. See Cardigan Bay.

ABERAVON, a small borough-town in Glamorgan- shire, in Wales, governed by a portreeve. It is now an inconsiderable village, situated at the mouth of the river Avon, whence its name; Aber, in the ancient British, denoting such a situation. W. long. 3° 48'. N. lat. 51° 35'.—The copper-works established near this place have given it importance, and increased its population.

At a small distance from this town is the charming seat of Lord Vernon, at Briton ferry, where the Neath river, issuing from the bold hills which enclose its vale, passes between several majestic groves, and precipitates itself into the sea.

ABERROTHICK, or Arraath, one of the Royal Burghs of Scotland, situated in the county of Angus, about forty miles N.N.E. of Edinburgh, at the discharge of the river Brothick into the sea. It is a small well-built town, and is gradually improving. Its manufactures consist of coarse brown linens, failcloth, and thread. Its export trade consists of these articles, barley, and wheat; and its imports are flax and timber from the Baltic. Coals and lime form its coaling trade. This port is very ancient, and is famous for the ruins of an abbey, founded by William the Lion, in 1178, and dedicated to Thomas à Becket. The monks were of the Tyronian order, and the last abbot was Cardinal Beaton. This town has a chalybeate water, containing iron dissolved in fixed air, and used as a diuretic and corromorative. W. long. 2° 29'. N. lat. 56° 36'.

ABERCONWAY. See Conway.

ABER-
ABERCORN, a small town of Georgia, in America, on the Savannah river, about thirteen miles N. W. of Savannah.

ABERCROMBIE, Thomas, M. D. in Biography, was born at Forfar, in the county of Angus, in 1656, and educated at St. Andrews and Avranches, in which latter place he took his degree in 1687. In 1690 he returned hither, and resided at the house of James I. and was appointed one of the county physicians. After the revolution he applied to the study of antiquities, and wrote the 'Marital Antiquities of Scotland,' in 4 vols. 12mo. His Treatise on Tont is not much esteemed. He died at Edinburgh in 1726, aged 70. *Bair. Dict.*

ABERCROMBIE, David, in Biography, a Scotch physician, published, in 1685, a Treatise on the Venereal Disease, under the title, Tota et alius Loci Venerarum, Exemplisque Mercurialis, et Semper-Complice. Stillett. M. D. This was followed by another book on the same subject, in the year 1687. He also published, De Pulsioni Varietate, an. 1687; and, in the same year, Ars Explorandae Medicum Facultates Plantarum, ex folo sapere. His works however are of little value.

ABERDARON Bay, in Geography, is situated within the S. W. point of Caernarvon county in Wales, and N. E. from Bardsey island.

ABERDAVINE, in Ornithology, a name sometimes given to a species of Fringilla, more generally called Siskin. See Spinus.

ABERDEEN, in Geography, the name of two cities in Scotland, called the Old and New Town, situated on the German ocean. This is a place of great antiquity; as it appears, that privileges were conferred upon it in the reign of Gregory, about the year 893; and a bishoprick founded by Malcolm I. in 1004, at a place in Banffshire, was transferred to old Aberdeen by David I.; and, in 1165, a new charter was obtained from Malcolm IV. Another charter was granted by Alexander I. in 1217.

Old Aberdeen lies at the mouth of the river Don, over which is a fine Gothic bridge of a single arch, resting upon two opposite rocks, which has been much admired, and which is said to have been built about the year 1290. The principal building in this town is the King's College, which is built round a square, with cloisters on the south side. This college was founded in 1494, and from the circumstance of King James IV. claiming the patronage of it, it derives its present name. This and the Marischal College in the new town form one university, called the University of King Charles. The library is large, but has not many curiosities. The first principal was Hector Boethius, who was sent hither from Paris on an annual salary of 40 Scots marks, at thirteen pence each.

The New Town is the capital of the shire of Aberdeen, and exceeds in extent, trade, and appearance, any town in the north of Scotland. It is situated about one mile from the old town, on a rising ground, in a small bay formed by the river Dee, deep enough for a ship of 200 tons, and about two miles in circumference. There is an elegant bridge over the river, consisting of seven arches, which is said to have been built by Dunbar, who was bishop about the year 1200. The chief public building in this town is the Marischal College, founded by George Keith, Earl Marischal, in 1594, and augmented since by many additional buildings. In this college there are about 150 students, who are instructed, as well as those of the king's college, by able professors. Besides two parish-churches, and the college kirk, there is an elegant episcopal chapel, with several meeting-houses. The other public buildings are a handsome town-hall, a grammar school, Gordon's hospital, and an infirmary. The harbour is defended by a strong stone pier, lately erected under the direction of Mr. Smeaton. The trade of Aberdeen is now considerable, and capable of improvement by an attention to the white fisheries. Its imports are from the Baltic, and a few merchants trade to the West Indies and North America. Its exports are rockings, sheep, mutton, oatmeal, and pickled pork. The two chief articles are very important branches of manufacture in this town and neighbourhood. The salmon fisheries on the Dee and Don, and particularly those of the Dee, are very productive; and Mr. Knox observes, that if the merchants would, in addition to the fish supplied by their, export the cargoes of 50 or 60 vessels, constantly employed in the herring and white fisheries, the port of Aberdeen would in a few years become the most celebrated mart of fish now existing. The number of inhabitants in Old and New Aberdeen is estimated at 25,000. There are two springs near this town, one of pure water, and another of a quality resembling the German Spa. Aberdeen, with Aberbrothick, Brecbin, Montrose, and Inverurie, returns one member to parliament. Aberdeen is 84 miles N. E. of Edinburgh. W. long. 2° 8'. N. lat. 57° 9'.

ABERDEENSHIRE, a county of Scotland, which comprehends the districts of Mar, Garioch, Strathbogie, and the greater part of Buchan. It is washed on the east and north by the German ocean, and abounds in sea-ports, which are convenient for commerce. The rivers are numerous, and the banks exhibit many natural woods and extensive plantations. In the high parts there is much excellent pasture, and in the level tract, called Strathbogie, there are many well cultivated fields. This county sends one member to parliament.

ABERDOVEY, a small sea-port in Merionethshire, at the discharges of the river Dovey into the bay of Cardigan. Its export trade, which is not considerable, consists of hansen, Welsh webs, oak bark, and other productions of the vale of Dovey.

ABERDOUR, a small town of Fife, in Scotland, on the Frith of Forth, about ten miles N. W. of Edinburgh.

ABEREMURDRUM, in Ancient Law Books, denotes murder that has been proved, or made manifest by a judiciary process.

In this sense, aberemurder, called also abermurder, amounts to the same with probatum murdrum, or murder which needed proof; and it was opposed to open murder, which was murder sufficiently known by the notoriety of the fact.

Lambard explains abermurder by manifestum murdrum; and Spelman, by cadens manifesta; others, by apertum murdrum. Abermurdrum was one of those crimes which could not be expiated by money, as most others might be.

ABERFORD, in Geography, a market-town in the west riding of Yorkshire, 184 miles N. N. W. of London. W. long. 1° 21'. N. lat. 53° 50'.

ABERFRAW, a village in the isle of Anglesey, where the princes of North Wales had formerly a palace. W. long. 4° 30'. N. lat. 53° 57'.

ABERGAVENNY, an irregularly built town of Monmouthshire, beautifully situated in the midst of a range of meadows, at the confluence of the rivers Usk and Gavenny, and surrounded by several projecting hills. It contains about 500 houses. Its public buildings consist chiefly of a long Gothic bridge, the imperfect fragments of a castle, and an ancient church adjoining to the priory. It is a place of resort in summer for goats' whey, and is a great thoroughfare to the western parts of South Wales. It is about 143 miles W. by N. of London. W. long. 3° 5'. N. lat. 51° 50'.

ABER-
Abercoveny seems to have been the Gildonham of Antonius, and was his Barrow. At the distance of a few miles from this town are the ruins of Llanthony Abbey, situated in one of the deepest recesses of the black mountains, founded on the site of a chapel, supposed to be the residence of St. David, the tutelary saint of Wales. It was rebuilt, and the monastery formed for Augustine monks by Sir William de Lacy, in 1198.

Abernethy, a town in Strathspey, a district of Perthshire, in Scotland. It is situated on the river Tay, and said to have been the residence of the Pictish kings, and the seat of an archbishop, since transferred to St. Andrews. It is now much decayed.

Abernethy, John, in Biography, an eminent presbyterian divine, was born at Coleraine, in Londonderry, on the 10th of October 1680. His father was a dissenting minister in that town. After continuing under the care of his parents for nine years, he was separated from them by a concurrence of circumstances, which in the event proved favourable. His father had busineses in London, and his mother removed to Derry. Their son accompanied a relation to Scotland, who removed thither to avoid the troubles occasioned by the insurrections in Ireland; and he thus escaped attending the siege of Derry, in which Mrs. Abernethy lost all her other children. At the early age of thirteen he was sent to the college at Glasgow, where he remained till he had taken the degree of Master of Arts. In conformity to the advice of his friends, he declined the profession of physic, to which his views were at first directed, and devoted himself to the study of divinity under Professor Campbell at Edinburgh. Such was his success in the prosecution of this object, that he was licensed to preach by the Presbytery of Route before he was twenty-one years of age. In 1703, after having been for some years at Dublin with a view to further improvement, he was ordained at Antrim; where his public performances were much admired, and where his general conduct and distinguished attainments recommended him to the esteem of all who knew him. He was much respected not only by his brethren in the ministry, but by many of the laity, who were pleased with the vivacity of his disposition, and the urbanity of his manners. His talents and virtues gave him a considerable attendance in the Synod, so that he had a large share in the management of public affairs. As a speaker, he was considered as their chief orator; and he maintained his character in these respects, and his interest in their esteem, to the last, even when a change of his religious sentiments had excited the opposition of many violent antagonists. In 1716 he attempted to remove the prejudices of the native Irish in the neighbourhood of Antrim, who were of the papish persuasion, and to engage them to embrace the protestant religion. His labours in this laudable design were not without success. Several of them were induced to renounce popery, and continued firm in their attachment to protestant principles; though others, to his great discouragement, reverted to their former persuasion. In the following year he received two invitations, one from Dublin, and another from Belfast; and the Synod, whose authority was very great, advised his removal to Dublin. Such, however, was his attachment to his congregation at Antrim, that he determined to continue there, at the risk of incurring the displeasure of the Synod. The interference of this assembly was repugnant to those sentiments of religious freedom which Mr. Abernethy had been led to entertain, by the exercise of his own vigorous faculties, and by an attention to the Bangorian controversy, which prevailed in England about this time. Many other ministers in the north of Ireland formed more enlarged ideas of christian liberty and charity than they had been accustomed to do, by means of the writings of Dr. Hoadly and his associates. With a view to the improvement of useful knowledge, they instituted a society, whose objects was to bring things to the test of reason and scripture. This laudable design was probably suggested by Mr. Abernethy. However he was very active in promoting it. As the gentlemen who conformed in this scheme met at Belfast, the society derived its appellation from the place in which they assembled. In the progress of this business, and in consequence of the debates and differences that were occasioned by it, several persons withdrew from the society; and those who adhered to it were distinguished by the title of non-subscribers. Their avowed principles were these:—First, That our Lord Jesus Christ hath in the New Testament determined and fixed the terms of communion in his church; that all Christians who comply with these have a right to communion; and that no man, or set of men, have power to add any other terms to those settled in the gospel. Secondly, That it is not necessary as an evidence of soundness in the faith, that candidates for the ministry should subscribe the Westminster Confession, or any uninspired form of articles, or confession of faith, as the term upon which they shall be admitted; and that no church has a right to impose such a subscription upon them. Thirdly, That to call upon men to make declarations concerning their faith, upon the penalty of cutting them off from communion, if they should refuse it, and this merely upon suspicion and jealousy, while the persons required to purge themselves by such declarations, cannot be fairly convicted upon evidence of any error or heresy, is to exercise an exorbitant and arbitrary power, and is really an inquisition. Mr. Abernethy was justly considered as the head of the non-subscribers, and he became of course a principal object of reproach and persecution. In an early period of this controversy, viz. in 1719, he published a sermon from Romans, xiv. 5, in which he explained the rights of private judgment, and the foundations of christian liberty. He afterwards published a small piece, intitled, "Seafonable Advice to the contending Parties in the North," which was accompanied with a Preface by the Reverend Mefhrs. Weld, Boyce, and Chappin, of Dublin. The design of this publication was to prove, that there ought to be no breach of communion among the Protestant dissenters on account of their different sentiments and practices concerning subscription to the Westminster Confession. The Synod, however, determined, in 1726, that the non-subscribers should no longer be of their body, and revived, with additional force, the act of 1705, requiring the candidates for the ministry to subscribe the Westminster Confession. From that time the excluded members formed themselves into a separate Presbytery, and prepared to encounter many difficulties and hardships. Mr. Abernethy found that his justly acquired reputation, which he had uniformly maintained by a most exemplary life, was no security to him against these evils. Some of his congregation deserted him, and under the influence of the Synod formed themselves into a distinct society; and though most of his old friends adhered to him, he thought it most advisable to accept an invitation which he received from the congregation of Wood-street, in Dublin; and accordingly he removed thither in 1730. At Dublin he prosecuted his studies with renewed diligence; and devoted from a practice which he had pursued in the north, by writing his sermons at full length, and conscientiously using his notes in the pulpit. The dissenters in Ireland being at this time drowsy from emancipating themselves from the incapacity of devising them by the Telt
Adr. Mr. Abernethy, in 1731, wrote a paper, in subherence to this design, with a view of shewing the unreasonable and injustice of all those laws, which upon account of mere difference in religious opinions and forms of worship, excluded men of integrity and ability from serving their country, and debarred them of those privileges and advantages to which they had a natural and just title as free-born subjects. He particularly intimated that, considering the state of Ireland, it was a great error, in point of policy, to continue restraints which weakened the Protestant interest, and were prejudicial to the government. In 1733 the Irish dissenters made an attempt for obtaining the repeal of the obnoxious act, and Mr. Abernethy again appeared from the prefs in favour of the scheme; but the design miscarried. He continued his labours in Wood-Street for ten years, and enjoyed great satisfaction in the society and esteem of his friends. From the strength of his constitution, the vigour of his spirit, and the uniform temperance of his life, there was reason to hope, that his usefulness would have been prolonged. But a sudden attack of the gout in the head, to which disorder he had been subject, frustrated the expectations of his friends, and he died, December 1740, in the 62d year of his age. For this event he was fully prepared, and he met it with great composure and firmness of mind, with a cheerful acquiescence in the will, and a fixed trust in the power and goodness of the Almighty. Mr. Abernethy was twice married; first, soon after his settlement at Antrim, to a lady of excellent character, of whom he was deprived in 1712; and again, after his removal to Dublin, to another lady, with whom he lived, in all the tenderness of conjugal affection, to his death. The most celebrated of Mr. Abernethy's writings were his two volumes of Discourses on the Divine Attributes, which were much admired at the time of their publication, and honourably recommended by the late excellent Archbishop Herring; and are still held in the highest esteem by those who are disposed to approve the most liberal or manly sentiments on the great subjects of natural religion. Four volumes of pithomun Satires were likewise published, the two first in 1748, and the others in 1757; to which is prefixed the Life of the Author, written, as is generally understood, by Dr. Duchal. A volume, intitled, "Scarce and valuable Tracks and Sermons, &c," was published in 1751. He also left behind him a Diary of his Life, confining of six large volumes in 400, of which the author of his Life has given a large account, and from which he has made many valuable extracts, which bear ample testimony to the singular excellence of his disposition and character. Biog. Brit.

ABERRATION, in Astronomy, an apparent motion in the celestial bodies, occasioned by the progressive motion of light, and the earth's annual motion in its orbit: the theory of which is explained by Dr. Bradley: for an account of which, see LIGHT and STAR.

This theory may be illustrated and applied in the following manner. If light be supposed to have a progressive motion, the position of the telescope, through which any celestial object is viewed, must be different from that which it would have been, if light had been instantaneous; and therefore the place measured in the heavens will be different from that true place. Thus, if S' be a fixed star (Astron. plate; fig. 1.), VF the direction of the earth's motion, S'F the direction of a particle of light, entering the axis at a, and moving through aF whilst the earth moves from e to F, and if the telescope be kept parallel to itself, the light will deform in the axis. For, let the axis aF, eF, continue parallel to ae; and if each motion be considered as uniform, that of the spectator, occasioned by the earth's rotation, being disregarded, because it is so small as to produce no effect, the spaces described in the same time will preserve the same proportion; but eF and eF being described in the same time, and as we have eF : eF :: en : en, and en and ae will be described in the same time, and therefore when the telescope is in the situation en, the particle of light will be at s in the telescope; and the case being the same in every moment of its descent, the place measured by the telescope at is and the angle sF is the aberration, or the difference between the true place of the star, and the place measured by the instrument. Hence it appears, that if we take FS : FS : the velocity of light : the velocity of the earth, join Ss and complete the parallelogram FFSs, the aberration will be equal to FS, S will be the true place of the star, and the place measured by the instrument: and this latter is the same with the apparent place of the object, as it would be seen by the naked eye. In order to prove this, let it be considered, that if a particle of light fall upon the eye in motion, its relative motion with regard to the eye will be the same as if equal motions, in the same direction, were impressed upon each at the moment of contact: for it is well known to be a principle in mechanics, that equal motions in the same direction, impressed upon two bodies, will not affect their relative motions, and consequently the effect of one upon the other will not be altered. Let VF then be a tangent to the earth's orbit at F, and represent the direction of the earth's motion at F, and s'a; join Ss, and produce it to G, and take FG : Fn :: the velocity of light : the velocity of the earth in its orbit; complete the parallelogram FGHs, and draw the diagonal FH. Since FG and nF represent the motions of light and of the earth, if we conceive a motion Fs equal and opposite to nF to be impressed upon the eye at F, and upon the particle of light, then the eye will be at re, and the particle of light, by two motions FG and Fa, will describe the diagonal FH, which is its relative motion with respect to the eye itself. Hence it follows, that the object appears in the direction HF, and consequently that its apparent place differs from its true place by the angle GFH = FS.

But by trigonometry, fine FS : sin. Fis :: Fis :: Fs :: the velocity of the earth : the velocity of light, and therefore the sine of aberration = sin. Fis X sin. Fs :: Fs ; and if these velocities be considered as constant, the sine of aberration, or the aberration itself, which never exceeds 20', varies as the sine of Fis, and is therefore greatest when Fis is a right angle. Let i then express the sine of Fis, and we shall have 1 (radius) :: 20' X 20', the aberration. Hence when Fis coincides with FS', or the earth is moving directly or from a star, there is no aberration. And since Fs = 20' when Fis = 90', we shall have the velocity of the earth : the velocity of light :: sin. 20' :: radius :: 1 : 10314. It appears that the aberration Ss' lies from the true place of a star in a direction parallel to that of the earth's motion, and towards the same place.

M. de Maupertuis, in his Elements of Geography, familiarly illustrates the aberration by the direction in which a gun must be pointed in order to shoot a bird in its flight. Instead of pointing straight to the bird, the fowler directs the gun a little before it in the path of its flight; and so much the more as the flight of the bird is more rapid with respect to that of the shot. M. Clairaut too, in the Mem. of the Acad. Scienc. for 1746, explains the aberration by supposing drops of rain to fall quickly and rapidly after each other from a cloud, under which a person moves with a very narrow tube; in which case it is evident that the tube must have a certain inclination, in order to admit a drop which enters
enters at the top, to fall freely through the axis of the tube, without touching the sides of it; and this inclination must be greater or less according to the velocity of the drops in respect to that of the tube. In this case the angle made by the direction of the tube, and that of the falling drops, is the aberration arising from the combination of these two motions.

To find the aberration in latitude and longitude. Let ABCD (Astron. pl. 1. fig. 2.) be the earth's orbit, supposed to be a circle, with the sun in the centre at $S$, let $P$ be in a line drawn from $S$ perpendicular to $ABCD$, and represent the pole of the ecliptic; let $S$ be the true place of a star, and $apeq$ be the circle of aberration parallel to the ecliptic, and $abeq$ the ellipse into which it is projected; let $qT$ be an arc of the ecliptic, and $PSG$ a secondary to it, which will coincide with the lefser axis $bd$, into which the diameter $pq$ is projected; draw $GxA$, which is parallel to $pq$, and $BxD$ perpendicular to it must be parallel to the greater axis $ac$; then, when the earth is at $A$, the star is in conjunction, and in opposition when the earth is at $C$. But as the place of the star in the circle of aberration is always $90^\circ$ before the earth in its orbit, when the earth is at $A$, $B$, $C$, or $D$, the apparent places of the star in the circle will be at $a$, $b$, $c$, or $d$, and the ellipse at $o$, $b$, $e$, or $d$; and to find the place of the star in the circle, when the earth is at any point $E$, take the angle $bpq = EXB$, and $z$ will be the corresponding place of the star in the circle; to find the projected place in the ellipse, draw $vo$ perpendicular to $Se$, and $wv$ perpendicular to $Se$ in the plane of the ellipse, and $z$ will be the apparent place of the star in the ellipse; join $s$ and $t$, and $st$ will be the apparent projection of $sv$, because the projection of the circle into lines perpendicular to the ellipse; draw the secondary $PsvK$, which will, as to $sv$, coincide with $sv$, unless the star be very near to the pole of the ecliptic. Now as $v\theta S$ is parallel to the ecliptic, $S$ and $v$ must have the same latitude; hence $v$ is the aberration in latitude; and as $G$ is the true, and $K$ the apparent place of the star in the ecliptic, $GD$ is the aberration in longitude. To find these, put $m$ and $n$ for the sign and coine of the angle $Ss$, or $CxK$, the difference of the earth from fzygies, radius being $1$; and as the angle $vsv = \theta sv$ = the complement of the star's latitude, the angle $vsv = \theta sv$ = the star's latitude, for the sign and coine of which put $v$ and $wv$, and put $r = Sz$, or $Sz$: then in the right triangle $Srv$, $n = : m : : r : : sv = rv$; and in the triangle $svs$, $1 = : m : : rv = rm$; hence the aberration in longitude. Also, in the triangle $svw$, $1 = : m :$ $r : : sv = rm$, and therefore $\theta = Ss = rv$; hence $v = : m : : rv = tz$, the aberration in longitude. When the earth is in fzygies, $m = 0$, therefore there is no aberration in latitude; and as $n$ is then greatest, there is the greatest aberration in longitude. If the earth be at $A$, or the conjunction, the apparent place of the star is at $a$, and reduced to the ecliptic at $H$; therefore $GH$ is the aberration, which diminishes the longitude of the star, the order of the sizes being $\eta GT$. In this case the angle $\Delta E$ described by the earth from conjunction, or the angle $\Delta S_{\eta}$, shows the elongation of the star from the sun. But when the earth is at $C$, or the star in opposition, the apparent place $\theta$ reduced to the ecliptic is at $F$, and the aberration $\Delta F$ increases the longitude; hence the longitude is the greatest when the star is in opposition, and least when in conjunction. When the earth is in quadratures at $D$ or $B$, then $n = 0$, and $m$ is greatest, therefore there is no aberration in longitude, but the greatest in latitude; when the earth is at $D$, the apparent place of the star is at $d$, and the latitude is increased; but when the earth is at $B$, the apparent place of the star is at $l$, and the latitude is diminished; hence the latitude is least in the quadratures before opposition, and greatest in quadratures after opposition. From the mean of a great number of observations, Dr. Bradley determined the value of $r$ to be $20^\circ$.

From the principles above stated and explained it appears, that the greatest aberration in latitude is equal to $20^\circ$ multiplied by the sine of the star's latitude; and that the aberration in latitude for any time is equal to $20^\circ$ multiplied by the sine of the star's latitude, and multiplied also by the sine of the elongation found for the same time. The aberration is the greater before the opposition, and additive after it. The greatest aberration in longitude is equal to $20^\circ$ divided by the cosine of its latitude; and the aberration for any time is equal to $20^\circ$ multiplied by the sine of the elongation of the star, and divided by the cosine of its latitude. This aberration is subtractive in the first and last quadrant of the argument, or of the difference between the longitudes of the sun and star, and additive in the second and third quadrants. The application of these rules will be seen in the following examples:

1. To find the greatest aberration of $\gamma$ Ursa minoris, whose latitude is $75^\circ$ $13'$. Here $m = 1$, $v = 9669$ the fin. $75^\circ$ $13'$. Consequently $20^\circ \times 9669 = 19^\circ$, $34$ the greatest aberration in latitude. Also, $n = 1$, $w = 2551$; and therefore $20^\circ = 78^\circ$, $4$ the greatest aberration in longitude.

2. To find the aberration of the same star, when the earth is $30^\circ$ from fzygies. Here $m = 15$, and therefore $10^\circ$, $34 \times 15 = 67^\circ$ the aberration in latitude. If the earth be $30^\circ$ beyond conjunction or before opposition, the latitude is diminished; but if it be $30^\circ$ after opposition or before conjunction, the latitude is increased. Also, $n = 8663$; consequently $78^\circ$, $4 \times 866 = 67^\circ$, $89$ the aberration in longitude. If the earth be $30^\circ$ from conjunction, the latitude is diminished; but if it be $30^\circ$ from opposition, it is increased.

3. For the sun, $m = 0$, $n = 1$, and $w = 1$: hence it has no aberration in latitude, and the aberration in longitude $= r = 20^\circ$ constantly; and this quantity of aberration answers to the sun's mean motion in $8^\circ$ $7^\circ$ $30''$, which is therefore the time which the light takes to move from the sun to us at its mean distance. Hence the sun always appears $20^\circ$ more backward than its true place.—The following table will expedite the calculations.
The Argument for the Longitude is, Long. Sun—
Long. Sinn. The Argument for the Latitude is, Long. 
Sun—Long. Sun—Sign.

<table>
<thead>
<tr>
<th>D.</th>
<th>O. VI.</th>
<th>I. VII.</th>
<th>II. VIII.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>0</td>
<td>17° 4</td>
<td>-13° 62</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>10 Sec.</td>
<td>1, 169</td>
<td></td>
</tr>
</tbody>
</table>

Aberration in longitude

-15°, 92 Product.

17° 4' 3" = 10° 17° 4' - 14° 65
31° 10 Sin. - 0° 5175

Aberration in latitude

-7° 58 Product.

To find the Aberration in declination and right ascension.

Dr. Bradley has annexed to his theory the rules or formule for this purpose; and these rules have been variously de-

monstrated, and reduced to other practical forms by M. Clairaut, in the Mem. of the Acad. of Sciences for 1737; by Mr. Simpson in his Essays in 1710; by M. Fontaine des Crutes in 1744; by M. Euler, Mem. Acad. Berlin, tom. ii. p. 14. 8vo.; and by several other persons. The results of them are as follow:—The greatest aberration in declination is equal to 20°, multiplied by the sine of the angle of position A at the star, and divided by the sine of B, the difference of longitude between the sun and star, when the aberration in declination is nothing. And the aberration in declination at any other time will be equal to the greatest aberration multiplied by the sine of the difference between the sun’s place at the given time, and his place when the aberration is nothing. Also the sine of the latitude of the star is to radius, as the tangent of A is to the tangent of B. The greatest aberration in right ascension is equal to 20° multiplied by the cosine of A, the angle of position, and divided by the sine of C, the difference in longitude between the sun and star, when the aberration in right ascension is nothing. And the aberration in right ascension at any other time, is equal to the greatest aberration multiplied by the sine of the difference between the sun’s place at the given time, and his place when the aberration is nothing. Also, the sine of the latitude of the star is to radius as the cotangent of A to the tangent of C. Hutton’s Mathem. Dict. Art. Aberration.

Mr. Vince has purified the method given by M. Cagnoli in his Trigonometry, as the most convenient in practice, and subjoined the tables computed by M. de Lambe in this way.

We shall here annex the tables, referring to Mr. Vince’s Astronomical Almanac, (sub infra,) for the proceedings, which expressions for the aberration in right ascension and declination on which they are formed have been deduced.

General Tables for the Aberration of the Fixed Stars.

<table>
<thead>
<tr>
<th>Table I. Arg. A—S.</th>
<th>Table II. Arg. A+S—S.</th>
<th>Table III. Arg. S+D+S—D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>D.</td>
<td>O. VI.</td>
<td>I. VII.</td>
</tr>
<tr>
<td></td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>0</td>
<td>17° 4</td>
<td>-13° 62</td>
</tr>
<tr>
<td>1</td>
<td>10 Sec.</td>
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</tbody>
</table>

Aberration in longitude

-15°, 92 Product.

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Aberration in latitude

-7° 58 Product.

To find the Aberration in declination and right ascension.

Dr. Bradley has annexed to his theory the rules or formule for this purpose; and these rules have been variously de-
Use of the Tables.

$A =$ the right ascension of the star.

$D =$ the declination of the star.

$S =$ the longitude of the sun.

Enter Table I. with the argument $A-S$, and Table II. with $A+S$, and the sum of the two corresponding numbers multiplied by the secant of $D$ will be the aberration in right ascension.

Enter Table I. with the argument $A-S+3$ signs, and Table II. with $A+S+3$ signs, and the sum of the two corresponding numbers multiplied by the sine of $D$ will be the first part of the aberration in declination.

Enter Table III. with the arguments $S+D$ and $S-D$, and you will have two other parts of the aberration in declination; and the sum of these three parts will give the whole aberration in declination.

If the declination of the star be south, add six signs to $S+D$ and $S-D$.

Ex. To find the aberration of α Aquilae, on May 10, 1795, at 12 o'clock in the evening.

$A = 0^\circ 25^\circ 12'$

$S = 1^\circ 20^\circ 12'$

$A-S = 8^\circ 5^\circ 0^\circ$ Table I. $+ 8^\circ 1$

$A+S = 11^\circ 15^\circ 24^\circ$ Table II. $+ 0^\circ 8$

$D = 8^\circ 20^\circ$ secant $+ 8^\circ 9$

Aberration in Right Ascension $9^\circ 998$ Product.

If the star's declination had been south, then $S+D+6$ signs $= 7^\circ 28^\circ 32^\circ$ Table III. $+ 2^\circ 08$

$S-D+6$ signs $= 7^\circ 11^\circ 52^\circ$ Table III. $+ 2^\circ 97$

First Part $- - - 2^\circ 49$

Aberration in Declination $+ 2^\circ 56$

The aberration of a star applied to its apparent place gives the true place. On the subject of this article, see Dr. Malke-lyne's rules for finding the aberration of a star, and Vince's Astron. vol. i. chap. 22. p. 311—330.

Aberration of a planet, in Astronomy, is its geocentric motion, or the space through which it appears to move as seen from the earth, during the time of light's passage from the planet to the earth. Let $S$ (Astron. pl. i. fig. 4.) be the fun, $T$ the earth, $P$ the correspoding place of the planet; and let the earth be suppos'd to move in the direction $T_1$, parallel to which draw $PQ$, and let it be equal to the space through which the earth has moved, whilst light passes from $P$ to $T$, and $Q$ will be the apparent place of the planet. If $PQ$ represent the motion of the planet in the same time, $Q$ being the apparent, and $P$ the corresponding true place, the angle $Q'T_1P$ will be the aberration arising from the progressive motion of light and the motion of the planet. Since $PQ$ and $P_1Q_1$ represent the motions of the earth and planet, $Q_2P_2$ will represent their relative motions; and hence the motion of the planet about the earth in the time when light takes to pass from the planet to the earth in the aberration. With respect to the fun, the aberration in longitude is con-stantly 20°, that being the space moved through by the fun, or by the earth in the time of $8^\circ 7^\circ$, which is the time in which light passes from the fun to the earth. In like manner, if we know the distance of any planet from the earth, we shall obtain its aberration. For let $ST = P$, $PT = d$, and $m =$ the angle describ'd by the planet about the earth, or its geocentric motion, in longitude, right ascension or declination, in 24 hours: then $1:\: d = 8^\circ 7^\circ \cdot 5^\circ 5^\circ$, the time in which light moves from $P$ to $T$; consequently $24 : h = 8^\circ 7^\circ \cdot 5^\circ d = m$ : the aberration $= 8^\circ 7^\circ \cdot 5^\circ dm$.

Thus by taking the geocentric motion from the Nautical Almanac, and estimating the distance, in doing which no great accuracy is required, we shall find the aberration of a planet in latitude, longitude, right ascension or declination. When $m =$ 0, or the planet is stationary, the aberration is evidently equal to nothing.

Ex. 1. On May 1, 1794, at noon, What is the aberration in longitude of Mars? Here $SP = 1,523$ the mean distance, the longitude of the fun is $1^\circ 11^\circ$, and the geocentric longitude of Mars is $0^\circ 29^\circ 1^\circ$; and therefore the angle $PTS = 11^\circ 41^\circ$, and consequently $PT = 2,489 = d$; and $m = 44^\circ 50^\circ = 2605$, taken from the Nautical Almanac; hence $0,00564 dm = 37^\circ 5^\circ$ the aberration in longitude.

Ex. 2. For the Moon, $d = 0,00253$: the mean distance, $m = 13^\circ 10^\circ 35^\circ = 47435$ the mean diurnal motion: hence $0,00654 m = 0^\circ 67$ the aberration, which is so small that it may be neglected.

It is evident that the aberration will be greatest in the longitude, and very small in latitude, because the planets deviate very little from the plane of the eclipse, so that this aberration is almost inconsiderable and disregarded: the greatest in Mercury being only about $4^\circ 7^\circ$, and much less in the other planets. As to the aberrations in declination and right ascension, they must depend upon the situation of the planet in the zodiac. The aberration in longitude being equal to the geocentric motion, will be greater or less according to this motion. It will be greatest in the superior planets Mars, Jupiter, Saturn, &c. when they are in opposition to the fun; but in the inferior planets Venus and Mercury, the aberration is greatest at the time of their superior conjunction. Thee maxima of aberration for the several planets, when their distance from the fun is least, are as follow. viz. Georgan or Hælrichell $25^\circ$, Saturn $27^\circ$, Jupiter $29^\circ$, Mars $36^\circ$, Venus $45^\circ$, Mercury $59^\circ$, and the Moon $j$. Between these numbers and nothing the aberrations in longitude vary according to the situation of the planets. That of the Sun, however, is invariable, being constantly $20^\circ$: and this may alter his declination by a quantity which varies from $0$ to near $8^\circ$, being the greatest; or $8^\circ$, about the equinoxes, and vanishing in the solstices. The methods and formula of computation are given by M. Charpentier in the Mem. Acad. Scienc., for 1746, and by Mr. Euler in the Berlin Mem. vol. iv. for 1746. M. de la Lande has calculated a table shewing the aberrations of the planets at various degrees of elongation from the sun, by means of which the apparent place may be determined from the true place. When the planet is stationary, there is no aberration; when the planet's motion is direct, the aberration is negative, and when retrograde, positive. This table is published by Mr. Vince. It has been already stated, that
the aberration is $\cos \theta$, if the earth's distance be
134; and if this distance be replaced by 10, the
aberration will be $\cos 0.00564\theta$, up to which
position the following table was contrived. If the distance
be greater than 12, e.g. 37, find the value for 10, multiply it
by 3, and add to the product the value for 7.

A TABLE
To find the Aberration of a Planet or Comet, in Latitude,
Longitude, Right Ascention or Declination.

<table>
<thead>
<tr>
<th>Distance from the Earth</th>
<th>that of the Sun being 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>M. Sec.</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>0.5</td>
</tr>
<tr>
<td>4</td>
<td>1.1</td>
</tr>
<tr>
<td>5</td>
<td>1.7</td>
</tr>
<tr>
<td>6</td>
<td>2.3</td>
</tr>
<tr>
<td>7</td>
<td>2.9</td>
</tr>
<tr>
<td>8</td>
<td>3.5</td>
</tr>
<tr>
<td>9</td>
<td>4.1</td>
</tr>
<tr>
<td>10</td>
<td>4.7</td>
</tr>
</tbody>
</table>

Suppose the distance of a comet to be 23, and its ap-
parent motion in 24 hours to be $2^\circ 15'$ in longitude, and it be
required to find the aberration in longitude. If we enter the
table with the distance 10 and daily motion $2^\circ 15'$,
we thus get 45",68, which multiplied by 4, gives 182",72; and
by entering with the distance 3, we obtain 13",73; and therefore the aberration is 196",4.

For reducing the place of the body computed from the
table, to the apparent place, add the aberration, if the lati-
itude, longitude, right ascension, or declination of the body
decrease, but subtract, if it increase; and the contrary, to
reduce the apparent to the true place. See Vince's Almanaco,
vol. i. p. 332-338. See remarks on the effects of
aberration on the transit of Venus over the sun by Dr. Price
in Phil. Trans. vol. lx. art. 47. p. 536.

Aberration, in Medicine, signifies a deviation from the
ordinary course of nature.

Aberration, in Optics, is used to denote that error or
deviation of the rays of light, when inflected by a lens or
speculum, whereby they are hindered from meeting or uniting
in the same point, called the geometrical focus. It is
either lateral or longitudinal. The lateral aberration is
measured by a perpendicular to the axis of the speculum, pro-
duced from the focus, to meet the reflected or refracted ray:
the longitudinal aberration is the distance of the focus
from the point in which the same ray intersects the axis. If
the focal distance of any lens be given, their apertures be
small, and the incident rays homocentric and parallel, the
longitudinal aberrations will be as the squares, and the lateral
aberrations as the cubes of the linear apertures.

There are two species of aberration, distinguished by their
different causes: one arising from the figure of the glass or
speculum; the other from the unequal refrangibility of the
rays of light. The second species of aberration is sometimes
called the Newtonian, from its having been discovered by Sir
I. Newton. With regard to the former species of aberration we
may observe, that if rays proceed from a point at a given
distance, they will be reflected into the other focus of an ellipse
when the luminous point is in one focus, or directly from the
other focus of a hyperbola; and if the luminous point be
infinitely distant, so that the rays are parallel, they will be
reflected by a parabola into its focus: but in both cases they
will be diffracted by lenses of all other figures. Spectra of
the former kind are made with difficulty; and therefore
curved specula are commonly of a spherical figure, which
have no accurate geometrical focus. Let BVE (Optics
Pl. i. fig. 1.) represent a concave spherical speculum, whose
centre is C; and let AB, EF be two incident rays parallel
to the axis CV. At the angle of reflection is equal to the
angle of incidence, if CB and CF be drawn to the points of
incidence, and the lines BD and FG be drawn so as to
make the angles CBD and CFG respectively equal to
CBA and CFE, BD and FG will be the reflected rays, and
D and G the points in which they meet the axis. Because
the triangles CBD and CFG are similar, the angles at the
base being equal, the sides CD, DB, and CG, GF, are
respectively equal, and therefore the points of coincidence
with the axes are equally distant from the point of incidence
and the centre. Hence it appears, that if B be indefinitely
near the vertex V, D will be in the middle of the radius
CV; and the nearer the incident rays are to the axis, so much
the nearer will the reflected ray be to the middle of the
radius, and vice versa. So that the aberration of any inci-
dent ray increases, as it is further removed from the axis,
till the distance VI become 60 degrees, in which case the
reflected ray is equal to the radius, its point of interfection
coincides with the vertex, and the aberration is equal to the
radius. This illustration shows us why specula are made of
very small segments of spheres, viz., that all their reflected
rays may intersect the axis near the middle point of the
radius, and thus suffer the least aberration, and render the
image more distinct. The case is the same with regard to
rays refracted through lenses.

In different spherical lenses M. Huygens has demonstrated
that the aberration from the figure is as follows: 1. In all
plano-convex lenses, having their plane surface exposed to
parallel rays, the longitudinal aberration of the extreme ray,
or that remotest from the axis, is equal to $\frac{1}{2}$ of the thickenss
of the lens.

2. In all plano-convex lenses, having their convex sur-
face exposed to parallel rays, the longitudinal aberration
of the extreme ray is equal to $\frac{1}{2}$ of the thickness of the lens:
the aberration in this case being about $\frac{2}{3}$ of that in
the former, or in proportion to it, as $7$ to $27$.

3. In all double convex lenses of equal spheres, the
aberration of the extreme rays is equal to $\frac{1}{2}$ of the thickenss
of the lens.

4. In a double convex lens, the radii of whose sphers
are as 1 to 6, if the more convex surface be exposed to
parallel rays, the aberration from the figure is less than in any
other spherical lens, being no more than $\frac{1}{2}$ of its thickenss.
M. Huygens has also shown, that the same aberration is produced by concave lenses as by similar convex ones.

However this species of aberration is altogether inconsiderable, compared with the latter; insomuch that if the object-glass of a telescope be plano-convex, and the plane side be turned towards the object, and the diameter of the sphere to which the convex side of the glafs is ground, be 102 feet, the semidiameter of the aperture be two inches, and the ratio of the fin of incidence out of glafs into air be to that of refraction as 20 to 31; the diameter of the circle of aberrations will in this case be only \( \frac{961}{72000000} \) parts of an inch. But the diameter of the little circle, through which the fame rays are scattered by unequal refrangibility, will be about the 55th part of the breadth of the aperture of the object-glass, which is here four inches; and therefore the error arising from the spherical figure of the glafs is to the error arising from the different refrangibility of the rays, as \( \frac{961}{72000000} \) to \( \frac{1}{2} \), that is, as 1 to 5449. See Newton's Optics, p. 83. 8vo. (and oper. tom. iii. 347. tom. iv. p. 56. Ed. Hofi.) or Smith's Optics, book ii. chap. 6. (vol. i. p. 39.) where this proposition is demonstrated. That objects should appear through telecopes fo diluent as they do may seem surprizing. Newton accounts for the fact by observing, that the rays are not uniformly dispersed over the whole circular space; in the centre they are more dense, and they become more and more rare towards the circumference, and on this account they are not visible, except those of them that are in or near the centre.

In confluence of the discovery of the unequal refrangibility of light, and the apprehenion, that equal refractions must produce equal divergencies in every fort of medium, it was imagined, that all spherical object-glasses of telecopes would be equally affected by the different refrangibility of light, in proportion to their aperture, of whatever materials they might be confructed; and therefore, that the only improvement of which refraeting telecopes were capable, was that of increasing their length. On this account Sir Isaac Newton, and others after him, despairing of success in the manufacture and use of refraeting lenses, directed their chief attention to the construction of refraeting telecopes. However, about the year 1747, Mr. Euler applied himself to the subject of refraction, and pursuing a hint suggested by Sir Isaac Newton, formed a scheme of making object-glasses with two leaves of glafs, inclining water between them; hoping, that by constructing them of different materials, the refrations would balance one another, and prevent the usual aberration. Mr. J. Dolland, an ingenious optician of London, examined this scheme, and found that Mr. Euler's principles were unsatisfactory. M. Clairaut likewise concurred in opinion, that his speculations were more ingenious than useful.

This controversy, which promised to be of great importance in the science of optics, engaged the attention of M. Klingenberg of Sweden, and induced him carefully to examine the eighth experiment in the second part of Newton's Optics, with the conclusions which he draws from it. He found, that the rays of light, in the circumstances there supposed, did not lose their colour, as Sir Isaac imagined. This hint of the Swedish philosopher, led Mr. Dolland to re-examine the fame experiment; and it appeared, after accurate trials, that different substances made the light to diverge very differently, in proportion to their general refraactive power: therefore, in the year 1757, he procured wedges of different kinds of glafs, and applied them together, so that the refractions might be made in contrary directions, in order to discover, whether the refractions and divergency of colours would vanish together. The result of his first trials encouraged him to persevere; for he discovered a difference far beyond his hopes in the refraactive qualities of different kinds of glafs, with respect to their divergency of colours. The Venetian glafs and the English crown glafs were found to be nearly alike in this respect; the common English plate glafs made the light diverge more, and the English flint glafs most of all. Without entering into the cause of this difference, he proceeded to adapt wedges of crown glafs, and of white flint glafs, ground to different angles, to each other, so as to renege in different directions, till the refracted light was entirely free from colours. Having measured the refractions of each wedge, he found that of the white glafs to be to that of the crown glafs nearly as 1200 to 3; and he deduced this general conclusion, that any two wedges, made in this proportion, and applied together so as to renege in contrary directions, would renege the light without any aberration of the rays. Mr. Dolland's next object was to make similar trials with spherical glasses of different materials; and he found that, in order to obtain a refraetion of light in contrary directions, one must be convex, and the other concave; the latter, which was to renege the moist, that the rays might converge to a real focus, was made of crown glafs, and the former of white flint glafs; and, the refractions of spherical glasses being in an inverse ratio of their focal distances, it was neccessary that the focal distances of the two glafses should be inversely as the ratios of the refractions of the wedges; for being thus proportioned, every ray of light that passes through this combined glafs, at any difference from its axis, will constantly be renege by the difference between two contrary refractions, in the proportion required; and therefore the different refraactive of the light will be entirely removed.

But in the applications of this admirable discovery to practice, many difficulties occurred. At length, however, by repeated trials, and resolute perseverance, Mr. Dolland succeeded so far as to confine renegetic telecopes much superior to any that had before been used; representing objects with great diluteness, and in their true colours.

M. Clairaut, who interested himself hertimes in this discovery, endeavoured to ascertain the principles of Mr. Dollond's theory, and to lay down rules for facilitating the construction of these new telecopes. With this view he made several experiments, in order to determine the refraactive powers of different kinds of glafs, and the proportion in which they separated the rays of light; and from these experiments he deduced several theorems and problems of general use. M. D'Alembert likewise made a great variety of calculations to the same purpose; and shewed how to correct the errors to which these telecopes are subjeft, by placing the object-glasses, in some cases, at a small distance from one another, and sometimes by using eye-glasses of different refraactive powers. But though foreigners were hereby supplied with the moft accurate calculations, they were very defective in practice. The English telecopes, made, as they imagined, without any exact rule, were greatly inferior to the bee of their construction.

M. Euler, who first gave occasion to this important and useful inquiry, was very reluctant in admiring Mr. Dollond's improvements, because they militated against a preconceived theory of his own. At last, however, convinced of their reality and importance by M. Clairaut, he adhered; and soon after received further satisfaction from the experiments of M. Zeilher, of Peterburgh.

M. Zeilher demonstrated, that it is the lead, in the composition of glafs, which gives it this remarkable property; so that, while the refraction of the mean rays is nearly the same, that of the extreme rays considerably differs; and by increasing the lead, he produced a kind of glafs, which occasioned
enlarged a much greater refraction of the extreme rays than the first glasses which Mr. Dollond had made of, and at the same time considerably increased the mean refraction. M. Zeffer, in the course of his experiments, made glasses of minim and flint, with a mixture of alkaline salts; and found that this mixture greatly diminished the mean refraction, without making hardly any change in the dispersion; and he at length obtained a kind of glass greatly superior to the first glass of Mr. Dollond for the construction of telescopes; since it occasioned three times as great a dispersion of the rays as the common glasses, while the mean refraction was only as 1.61 to 1.

Other kinds of metallic glasses, as well as that of lead, possess the fame useful property of dispersion. Some philosophers have, indeed, imagined, that there is a constant relation between the specific gravity of glass and its dispersion; but it ought to be considered, that the dispersion in ether and spirit of wine is stronger than that produced in water, which is a much heavier fluid. The object which opticians have generally proposed by using flint and common glasses in the construction ofochromatic telescopes, might be attained by means of other transparent substances, both solid and fluid. Dr. Blair of Edinburgh has lately evinced this fact. Flint glasses was found to reflect the green light considerably less than crown glasses, in proportion to the whole refraction of red and violet light; so that when the divergence of the red and that of the violet light, caused by the refraction of the two mediums, are equal, the divergence of the red and green light is always greater in the crown than in the flint glasses, and the divergence of the violet and green is always less in the crown than in the flint glasses. After a variety of experiments, Dr. Blair discovered that the muriatic and nitric acids, which are diffusive fluids of considerable strength, instead of reflecting the green light less than crown glasses, in proportion to the whole refraction of the red and violet light, refracted the green light more than crown glasses, in proportion to the whole refraction of red and violet light. He, therefore, mixed these two kinds of dispersive mediums, and thus obtained a medium, which diffracts the rays much more than crown glasses, and yet causes them all to diverge accurately in the same proportion in which they are made to diverge by the refraction of crown glasses; which entirely removes the aberration from the unequal refrangibility of light.


For a farther account of Mr. Dollond's and other new refracting telescopes of the achromatic or applanating kind, see Telescope.

**Aberration, crown of,** is a luminous circle surrounding the real disk of the sun, and depending on the aberration of the focal rays, whereby his apparent diameter is enlarged.

**Abersberg,** in Geography, anciently Alumin or Aventium, a small town and castle in Upper Bavaria, seated on the river Umbs, and containing a convent of Carmelites. It is famous as the birth-place of Johannes Aventinus.

**Aberystwith,** in Geography, a market town of Cardiganshire in Wales, on the Rhylol, near its confluence with the Yfawth, where it falls into the sea. It is situated on a bold eminence overlooking the sea, or bay of Cardigan. The streets are steep and ill-paved, and the houses are covered with the black slate of the country. It carries on a trade in lead, calamine, and fish, particularly herrings, which last branch has lately declined; and a few manufactured goods, such as wools, flannel, and flax. Of late it has been improving, and is become a place of resort for sea-bathing. Its walls and castle are in ruins. The castle was built by Gilbert de Strongbow, in the reign of Henry I. and commands the whole coast with the contiguous mouths of the Yfawth and Rhylol on one side, and a beautiful view of the vale which descends with the river on the other. A mint for the coinage of silver was established in this place by king Charles in 1657., and the coin was to be flapped on both sides with the Feathers, in order to show that it was coined in Wales. It is 203 miles W. N. W. of London. W. long. 5°. N. lat. 52° 5'.

**Abermenai,** a village at the S. W. end of the Meini straits, separating Carnarvonshire from Anglesea.

**Aberville river,** a branch of the Millipilli, in New Orleans, communicating with the lakes which fall into St. Louis bay.

**Abestia, or Avesta,** the name of one of the sacred books of the Persian Magi; which they attribute to their great founder Zarofater, or Zerdushht.

The Avesta is a commentary or exposition of two other of their religious books, called Zend and Parsend; the three together include the whole system of the Zoroastes, or worshippers of fire. D'Herbel. Bibl. Orient. p. 111. Hyde de Red. vet. Perf. c. 2.


**Abeston.** See Asbestos.

**Abethancourt,** Jacques, in Biography, a physician at Rouen, published Nova difficultia quaedegemina, et Purificationis in Morbium Gallicum, five venuere, una cum Dialogo Aquae Argenti, ac Ligni Guainici colantium, super dicti Morbi Cureationis prelatura. Opus fructiferum, Parisiis, 1527, in 8vo.

He is the first French physician who wrote on the venereal disease. Perhaps, M. Eloy says, because the disease appeared at Rouen before it was communicated to other parts of the kingdom.

**Aebettor, or Aebettor,** in Law, one who incites or encourages another to perform something criminal; or by some way afflicts him in the performance of his duty. It is the same with *act* and *part* in the Scots law.

Thus those who procure others to sue out false appeals of felony, or murder, against men, to render them infamous, are particularly denounced *abettors.*

So *abettors in murder,* are such as advise or procure a murder to be committed, or are accessory thereto.

There are *abettors in felony,* but not in treason; the law looking on all those concerned in treason as principals.

**Abrevacuation,** in Medicine, denotes a partial evacuation of the pessent humours, either by nature or art.

**ABEX, or Aresh,** in Geography, a country of Ethiopia in Africa, bordering on the Red Sea, which bounds it on the east. It has Nubia on the north, Abyssinia on the west and south. Its principal towns are Suaquem and Arkoko. It has the name of Beglerbeg of Hablebeth, and is subject to the Turks. It is a sandy, barren, unhealthy country, about 500 miles in length, and 100 in breadth. Being very mountainous, it abounds with wild beasts; and in its forests there are many chemy-trees. See *Aisan.*

**Adayance, Abyeance, or Abyayance,** in Lawbooks, something that only exists in expectation, or in the intent, or remembrance of the law.

*Abayeance,* in our law, amounts to much the same with *hereditas.*
or before, were recorded in the archives of Edessa, it does not appear that Eusebius was ever at this city and took the account from the archives himself. Besides, it is remarkable, that this story is not mentioned by any writer before Eusebius; that it is not much taken notice of by succeeding writers; that the whole affair was unknown to Chrift's apostles, and to the christians their contemporaries, as is manifest from the early disputes about the method of receiving Gentile converts into the church; which this story, had it been true, must have entirely decided. As to the letters, no doubt can be made of their spuriousness, since, if Christ had written a letter to Abgarus, it would have been a part of sacred scripture, and placed at the head of all the books of the New Testament. Dr. Lardner has also pointed out several passages, both in the epistle to Abgarus, and in the history, which are liable to exception. Not to add, that it was the opinion of many of the most learned and ancient christians, that our Lord never wrote any thing. See Jones's Canon of the New Test. vol. ii. p. 1. and Lardner's Works, vol. vii. p. 222. 231.

ABGILLUS, John, surnamed Preller John, was son to a king of the Frics, and from the authority of his life obtained the name of Preller, or priest. He attended Charlemagne in his expedition to the Holy Land; but instead of returning with that monarch to Europe, it is pretended that he gained mighty conquests, and founded the empire of the Abelines, called from his name the empire of Preller John. He is said to have written the history of Charlemagne's journey into the Holy Land, and of his own into the Indies; but they are more probably trifling romances, written in the ages of ignorance.

ABHEL, in Botany, a name given by some to a certain, ever-green garden-shrub, well known in physic in many intentions.

ABHER, in Geography, a town of the Persian Trak, or ancient Parthis, in Asia, delightfully situated, and adorned with fine gardens and elegant public buildings. It is about 26 miles S.E. from Susiana.

ABHORRERS, in English History, a denomination given to a party about the year 1680, formed in opposition to those called Petitioners. In order to restrain the prevailing practice of petitioning against grievances, the church and court party framed addresses, containing the highest expressions of regard to the king, the most entire acquiescence in his wisdom, the most dutiful submission to his prerogative, and the deepest abhorrence of those who endeavored to encroach upon it by prescribing to him any Thing for assembling the parliament. Thus the nation came to be distinguished into petitioners and abhorrers. But these appellations were soon forgotten, though, when the parliament assembled, great numbers of the abhorrs, say Hume, (Hist. vol. viii. p. 130.) from all parts of England, were seized by order of the commons, and committed to muffery.

ABIA, in Biography, a learned rabbi of Alexandria, who wrote treatises on the intelligences which move the heavens, and on the influence of the planets. He flourished in Egypt about the year 1500.

ABIAD, in Geography, a town of Africa, on the borders of Abyssinian, situated on a high mountain, and remarkable for its timber, ebony and aromatic plants.

ABIAD, or white river, flows into the Nile, and is supposed, by some, to be the Nile itself.

ABIAGRASSO, a small town of Italy, seated on a canal, in the duchy of Milan. E. long. 9° 24'. N. lat. 45° 26'.

ABIAN, or Phoenician, a people of Thrace or, or as others say, of Scythia, who derived their name from the negative particle a, and bios, life, probably because they had no settled...
settled habitations and regular means of subsistence. They led
a wandering life, and cared all their possessions with them
in wagons, which were their houses. Their food was the
flesh of their flocks and herds, milk and cheese, and chiefly
milk's milk. They were unacquainted with commerce, and
though they possessed lands, did not cultivate them. From
those who were employed in this office, they received a tribute
sufficient to supply them with the more necessaries of life.
They never took arms but to oblige those to make good a
promise that was violated. They paid tribute to none of the
neighbouring tribes; and, provided on their own strength
and courage to repel any invasion. They were a people of
great integrity. Thus Homer has described them. *Alas:
742, 478, 545, 460, 478.

ABIAATHAR, in Scripture History, the son of Abime-
lech, and the tenth high-priest of the Jews. When Saul,
resenting his father's kindness to David, massacred the
priests, he alone escaped. Having attached himself to the
interest of David, he became the high-priest, though
Saul conferred the office on Zadok. But afterwards,
conspiring with Abinajah, Solomon deprived him of his office,

ABIB, in the Hebrew Chronology, the name of the first
month of the ecclesiastical year. This month was afterwards
called Nisan, and answers to part of our March and April.

ABIES, in Botany, a Species of the Pinus. See Fir-Tree.

ABIES marina, or Spruce, in Natural History, a name
given to the Sequelans altissima. The Cope frutis, a spe-
cies of Antipathies, is by some writers denominated Abies
routa.

ABIGA HERBO, the ground-pine of Chamæphyts.

ABIGAEUS. See Abraham.

ABIHU, one of the sons of Aaron, who, within eight
days after the consecration of Aaron and his sons, and the
dedication of the tabernacle, was consumed with fire, for
offering incense with strange fire. Lev. x. 2.

ABII Synth, in Ancient Geography, a people, suppos-
ed by Strabo (tom. i. p. 254.) to be the European Sarmatii,
bordering on the Thracians and Balancers; they are some-
times called Aethii, and are commended by Curtius (de Rebus
love of justice. See Abians.

ABIJAH, in Scripture History, the son of Jeroboam,
who was the first king of the ten tribes of Israel. Abijah
predicted, that he would be the only perf. of his family
who should receive funeral honors. I Kings, xiv. 13.

ABIAM was the name of a king of Judah, who suc-
ceded Rehoboam. After a reign of three years, during
which he incurred the impiety and bad conduct of his fa-
thor, he died, A. M. 3494, a. D. 955.

ABILA, in Ancient Geography. See Abel-Kiramim,
and Abel-Witim, and also the next article.

ABILENE, in Ancient Geography, a small province in
Cela-Syria, between Libanus and Antilibanus, whereas Ly-
fanias was for some time tetrach. Abela or Abila, the ca-
cal of this province, was N. of Damascus and of Panes, and
N. of Hephopolis. It is mentioned by Polybius, (Hist. i. vi-
ii.), Pliny, (Hist. l. xv. c. 18.) and others. See Luke, ii. 1.
Gibbon (History of the Decline and Fall of the Ro-
man Empire, vol. iv. p. 432. 8vo.) informs us, that the
province and manufactures of the country were annually col-
lected in the fair of Abela, about thirty miles from the city,
and that they furnished a rich spoil to the Spaniards after
the conquest of Damascus, A. D. 634.

ABILITY is rated, in Law, for a capacity of doing
certain things, relating either to the acquisition of property,
or the transferring of it.

Ability in this sense coincides with capacity, and stands op-
posed to disability or non-ability.

Every person is supposed to be able, i.e. to have the power of
taking and disposing of effects, whom the law does not disable.
The king's issue are of ability to inherit in Eu. 2 and where-
soever born; and children of subjects born beyond sea, may
inherit, if their birth were within the allegiance of the king.

ABIMELECH, in Scripture History, the name of two kings
of Gezer, a country of the Philistines, one of whom was
contemporary with Abraham, who took away Sarah and de-
termined to marry her, but being warned of his danger, re-
ferred her to her husband. She was Abraham's sister, as
well as wife, being of the same father, but by another mo-
ther. He afterwards made considerable presents to Abra-
ham; and they entered into a mutual covenant at Beerheba.
Gen. ch. xx. xxii. A. M. 2107, ante A. D. 1897. The other
Abimelech was, probably, the son and successor of the
former. Isaac employed the same artifice which had been
practiced by his father Abraham, in order to deceive Rebek-
ika from the danger to which she was exposed. But when
Abimelech, who was captivated by her beauty, discovered
that she was his wife, he forbade his subjects, upon pain of
death, from doing any injury to Isaac or Rebekah. The
subsequent prosperity of Isaac excited the envy of the Phil-
istine, upon which Abimelech ordered him to depart from
them. However, he afterwards formed a covenant with him.
A. M. 2200, ante A. D. 1864.

Abimelech was also the name of the natural son of Gideon,
by his concubine. His violent acts and death are recorded in

ABINEAU, in Geography, a port of America, on the
north side of the Lake Erie, and about 13 miles W. S. W.
from Fort Erie.

ABINGDON, a market town of Berks, situated on the
Thames. It derives its name from an ancient abbey. The
abbeys, felton's, and county meetings are often held here.
It has a good hall for the abbeys, &c. Here are two churches
said to have been erected by the abbots of Abingdon.
The streets are well built, and centre in a spacious corn-market.
It sends one member to parliament. Great quantities of
malt are made here and sent in barges to London. It is seven
miles S. of Oxford, and 56 W. of London. This town is
said to have been built by Cissa, king of Suffolk, A. D. 517,
and supposed by Bishop Gibbon to be the place called in
the Saxon annals, Ciduebe, where two synodes are said to
have been held, one in 742, and the other in 822. W. long.
12° 14'. N. lat. 51° 42'.

Abingdon is also the name of the chief town of Washing-
ton county in Virginia, about 260 miles in a direct line from
Richmond. N. lat. 36° 30'.

Abingdon is also a town of Harford county in Mary-
lnd, 12 miles S. W. from Havre de Grace, and 20 N. E.
from Baltimore. Called college, instituted by the metho-
dists in 1785, is in this town.

ABINTESTATE, in the Civil Laws, is applied to a
person who inherits from one who died intestate.

ABIOSI, j1u, in Biography, an Italian physician and astron-
omer, who lived towards the end of the 16th century and
beginning of the 17th. His Dialogue upon Astrology, 4to,
Venice, 1494, has been put into the Index Expurgatorius.

ABIPONIANS, in History, a tribe of American Indians,
who formerly inhabited the district of Chaks in Paraguay;
but who have since been compelled by the holiness of the
Spaniards to remove southward, into the territory lying be-
tween Santa Fe and St. Jago. M. Debrizholfer lived seven
years in their country, and published an account of them in
1785. He says, their number is small, and does not exceed
5000,
5000, which he ascribes to the women's destroying their infants, in order to prevent the infidelity of their husbands during the long time of their keeping them at the breast, which is not less than two years. They are naturally white, but acquire a brown colour by exposure to the air and smoke. They are strong and hardy, which, as this writer says, is owing to their not marrying before 30 years of age; and they are much celebrated for their chivalry and other virtues, though, according to our author, they have no knowledge of a deity; and yet they admit the existence of an evil spirit, and believe that the devil exists for ever. They consider their disasters as the effects of sorcery and witchcraft; and this superstitious notion gives rise to frequent murders. They are ranged into distinct bodies, under their respective chiefs, and, by means of their wild horses, they make frequent and formidable incursions into the territories of the Spaniards; against whom they have conceived an invincible hatred. Their use of horses commenced in 1541; and they manage them with great agility, without stirrups, saddles, or spurs. The fraud and cruelty practiced among them by the Spaniards, have induced the Jesuit missionaries to prohibit any of them from coming, without a formal permission, into any of their colonies. The success of these missionaries, in their endeavours to convert them to the Christian faith, has been very considerable. They are full of ignorance and uncivilized, that they can proceed in reckoning to far lesser than the number three; and the Jesuits have failed in teaching them the simplest use and expression of numbers.

ABIRAM, in Scripture History, a sedition Levite, who rebelled against Moses and Aaron, with a view of obtaining a share in the government, and who, with Korah and Dathan, concerned with them, were swallowed up alive by the opening earth. Num. xvi.

ABISHAI, in Scripture History, the son of Zeruiah, and brother of Joab, was one of the most valiant warriors of his time, and principal general in the armies of David. His military exploits are recorded in 2 Sam. xxi. 17. xxiii. 18; but the time and manner of his death are not known.

ABISHERING, an ancient law term, denoting a being free, or exempt from all amerciements for transgressions of any kind.

The word in a charter or grant, is said not only to give the proprietor the forfeitures and amercements of all others for transgressions committed within his fee, but also to exempt him from all such control by any within that compass.

ABITIBBI, in Geography, the name of a small lake in Upper Canada, to the S. of which is a settlement called Fredericton, in N. lat. 49°. W. long. 79°. 40'. It is also the name of a river, which runs N. and joins Moose river, near its mouth at James's bay.

ABITIBIS, a lake to the N. of Nipissing lake, on the N. E. boundary of Canada in New South Wales, which communicates with James's bay, near Moose fort. W. long. 78° 4'. N. lat. 59° 3'.

ABU1, a small town of Beira in Portugal. W. long. 7° 10'. N. lat. 49° 20'.

ABJURATION, compounded of ab, from or against, and jurare, to swear, in general sense, the act of denying, or renouncing a thing in a solemn manner, and even with an oath.

Among the Romans, abjuration signified the denying a debt, pledge, deposit, or the like trust, by a false oath. In which sense, abjuration coincides with perjury; and flanders distinguished from it, where the oath is supported just.

Abjuration, more particularly, is used for a solemn renunciation, or renunciation of some doctrine, or opinion, as false and pernicious. Thus it is used in the phrase, abjuration of heresy.

In our own laws, to abjure a person, is to renounce all authority or dominion of such a person. By the oath of abjuration, a person binds himself not to own any regal authority in the person called the Pretender, or ever to pay him the obedience of a subject. 1 W. and M. 13 W. Ill. 1 Geo. I. The refusals of the oath enjoined by these statutes are liable to heavy penalties, forfeitures, &c. The oath of abjuration by the 6th G. III. cap. 53. "I A. B. do truly and sincerely acknowledge, profess, tell, and declare in my conscience, before God and the world, that our sovereign lord king George is lawful and rightful king of this realm, and all other his majesty's dominions thereunto belonging. And I do solemnly and sincerely declare, that I do believe in my conscience, that not any of the dependants of the person who pretended to be Prince of Wales during the life of the late king James the Second, and since his decease pretended to be, and took upon himself the title and title of king of England, by the name of James the Third, or of Scotland, by the name of James the Eighth, or the title and title of king of Great Britain, hath any right or title whatsoever, to the crown of this realm, or any other the dominions thereunto belonging. And I do renounce, refuse, and abjure any allegiance or obedience to any of them. And I do swear, that I will bear faith and true allegiance to his majesty king George, and him will defend, to the utmost of my power, against all traitorous conspiracies, and attempts whatsoever, which shall be made against his person, crown, and dignity. And I will do my utmost endeavours to dissolve and make known to his majesty, and his successors, all treasons and traitorous conspiracies which I shall know to be against him or any of them. And I do faithfully promise, to the utmost of my power, to support, maintain, and defend the succession of the crown against the descendants of the said James, and against all other persons whatsoever; which succession, by an act, intituled, An act for the further limitation of the crown, and better securing the rights and liberties of the subject, is and stands limited to the princes Sophia, electrics and duchesses dowager of Hanover, and the heirs of her body, being protestants. And all these things do I plainly and sincerely acknowledge and swear, according to these express words by me spoken, and according to the plain and common sense and understanding of the same words, without any equivocation, mental evasion, or secret reservation whatsoever. And I do make this recognition, acknowledgment, abjuration, renunciation, and profane heartily, willingly, and truly, upon the true faith of a Christian. So help me God." Abjuration is also used in our Ancient Customs, for an oath taken by a person guilty of felony; who, lying to a place of sanctuary, would swear to forfear the realm for ever, in lieu of other punishment. We also find instances of temporary abjuration, viz. for three years, for one year and a day, and the like. This, in some cases, was admitted from criminals in lieu of death. The devotions for the church was of warm, from the time of Edward the Confessor to the Reformation, that if a man, having committed felony, could recover a church or churchyard before he was apprehended, it was an asylum from which he could not be brought to take his trial at law; but confessing his crime to the justices, or coroner, and abjuring the kingdom, he was at liberty.

By lat. 21 Jac. I, all use of sanctuaries, and consequently of abjuration, is taken away.

ABKHAS, in History, one of the seven nations in the countries
countries comprehended between the Black Sea and the Caspian. Their principal and most ancient establishments are on the southern declivity of the mountains that lie between the river Cuban and the Black Sea. They are tributary to the Turks, and are divided into two governments, the eastern and western; each of which is subject to a bashaw. The capital is Anapocia, formerly Nicopis. They speak a language peculiar to themselves, but bearing a remote affinity to that of the Circassians. Some have sup- posed that it is a dialect of the Celtic. They have little religion, though they preserve some traces of christianity. See Arabia and Arabisia.

ABLATION, the weanling of a child from the breast. The proper time for weaning a child must be determined by the state of health of the child, and of the parent, but particularly of the latter. The helpless of infants, and the late period at which they get their teeth, seem to indicate that nature intended they should derive the greater part of their food, for the first two years, from the breast. This, doubtless, was universally the case in the early periods of the world; as before the culinary art had obtained some degree of perfection, it must have been difficult to have found a sufficient quantity of such kinds of food as the children could properly masticate or digest, without the affissiance of the breast. And even now we know this to be the practice in rude and uncivilized countries. The negroes, Mr. Park says in his Travels in the interior Parts of Africa, suckle their children three years. A similar practice prevails among the poorer part of the inhabitants of this, and, perhaps, of every other country in Europe. These people also, previous to weaning their children, and for some time after, chew for them, such parts of their food as they are incapable of masticating. In families better circumstances, and who are capable of providing for their children proper nourishment, they are usually weaned when they have attained eight or nine months, although they have then rarely more than the eighth teeth, the incisors, or fore teeth. They are therefore necessarily fed for some months after with bread or biscuit moistened with milk, or with broth made of beef, mutton, or veal. Pieces of crust of bread, or of flesh, are also given them to chew, which is supposed not only to accelerate the cutting the remainder of their teeth, but by exciting a flow of saliva, to affist in digesting the new kind of food they are now gradually to be accustomed to take. See Weaning.

ABLATION, in the Ancient Agriculture, is a method of engraving; wherein the cynon of one tree, being united for some time to the flock of another, is afterwards cut off, and, as it were, weaned from its mother-tree.

Among the modern writers ablation is more usually called ungrafting or grafting by approach.

ABLANCE, See Perrott.

ABLANTIA, in Botany. See Trichocarpus.

ABLAQUEATION, a name used by the ancient writers of Agriculture for an operation in gardening, whereby the earth is dug from about a vine, or other fruit-tree, and its roots are laid bare, to expose them more to the sun, rain, and air, in order to promote its fecundity.—The proper season for aubication is autumn, for the benefit of the winter rain, and snow water. Bradley fixes it in January. But experience having shewn the practice to be dangerous, it is now generally laid aside.

ABLATION, formed from *auster*, to take away, in Surgery, the removal of whatever might be injurious or useless to the animal body.

ABLATIVE, in Grammar, the fifth case of Latin nouns. The word is formed from *auster*, to take away.

Priscian also calls it the comparative case; as it served among the Latins, for comparing, as well as taking away.

The ablativ is opposite to the Dative; the first expressing the action of taking away, and the latter that of giving.

The ablativ hardly answers to the full idea of a case; at least it is more vague than any other. It will be shewn in its place that the English, and other modern tongues, have properly no such thing as cases; unless we except the nominative and genitive or possessive, which are the only cases that admit of different terminations. But even in the ancient languages, from which the notion of cases is borrowed, it is suggested, that the ablativ is only a sort of supernumerary, or supplement to the rest. The five proper cases not being found sufficient to express all the relations of things to each other, recourse was had to an expedient; viz. the putting a preposition before some of the other cases; and this made the ablativ.

It may be added, that in the plural number the ablativ is still more obscure, as being only the native repeated. In English, French, &c. there is no precise mark whereby to distinguish the ablativ from other cases; and we only use the term in analogy to the Latin. Thus, in the two phrases, the magnitude of the city, and he spoke much of the city; we say, that of the city in the first is genitive, and in the latter ablativ: because it would be so, if the two phrases were expressed in Latin.

The question concerning the Greek ablativ has been the subject of a famous literary war between two great grammarians Frifchlin and Crinhus; the former of whom maintained, and the latter opposed the reality of it.

The dispute is not yet decided. Sanclius, and the Port-royalists, maintained the affirmative; Perizonius the negative. The chief reason alleged by Sanclius is, that the Roman writers often joined Greek words with the Latin prepositions, which govern ablativ cases, as well as with nouns of the same case. To which Perizonius answers, that the Latins anciently had no ablativ themselves; but instead thereof, made use, like the Greeks, of the dative case: till at length they formed an ablativ, governed by prepositions, which were not put before the dative; that, at first, the two cases had always the same terminations, as they still have in many inclusions; but that this was afterwards changed in certain words. It is no wonder then, that the Latins sometimes join prepositions which govern an ablativ case, or nouns in the ablativ case, with Greek datives, since they were originally the same; and that the Greek dative has the same effect as the Latin ablativ. See Cases.

ABLATIVE ABSOLUTE, in Grammar, is a word or phrase detached and independent of the rest of the discourse; neither governing, nor being governed of any other thing. This is frequent among the Latins; in imitation of whom the modern languages have likewise adopted it.

ABLAY, in Geography, a country in Great Tartary, the inhabitants of which, called Bucharis or Bachures, are subject to Russia, for the sake of obtaining its protection, but their chief is a Calmuck. It lies east of the river Iris, and extends 500 leagues along the southern frontiers of Siberia. E. long, from 72° to 83°. N. lat. from 51° to 54°.

ABLE, or ABL, Thomas, in Biography, chaplain to queen Catharine, confort of king Henry VIII., who distinguised himself by his zeal in opposing the proceedings of the King, and particularly the divorce of his royal mistress. For this purpose he wrote a tractate, intitled, Tractus de non diffolvente Henriæ & Catharine Matrimonio, or, according to Tanner, Invidia Peritus; though some suppose these are the titles of different works. He took his degree of A. B. at Oxford.
Oxford in 1513, and that of A.M. in 1516. In 1534, he was prosecuted for his concern in the affair of Elizabeth Barton, called, The Holy Maid of Kent, who was tormented by the monks to use strange gestures, to exhibit a variety of fictitious miracles, and to reign the gift of prophecy, by which means she attached many respectable persons to her interest; but she was afterwards attained of treason in parliament, condemned and executed, together with her chief accomplices, whose names the indefatigable Abo was also adjudged guilty of misprision of treason, by Statute 25 Henry VIII.

He was also one of those who denied the king's supremacy over the church, for which he was apprehended and imprisoned, and afterwards hanged, drawn, and quartered, in Smithfield, on the 30th of July, 1540. Bouchier gives him the character of a very learned man, and tells us, that he taught the queen music and the languages. Dug, Brit.

Aelctti, in Antiquity, a choice and select part of the soldiery in the Roman armies, picked out of those called Extraordinary.

Ablegmina, in Antiquity, those choice parts of the entails of victims which were offered in sacrifice to the gods. Some authors make alegmina to denote all those parts of the victims which were offered to the deities; contrary to the authority of Celsus, who restricts ablegmina to the exta, or entails only.

The exta being found good, were to be protected, or parted; i.e. the extremes or prominent parts cut off, as ablegmina, to be sprinkled with flour, and burnt by the priests on the altar, pouring wine on them. Tertullian lays the heathens for thus serving the gods with speras and offals.

Ablet, or Aellen, in Ichthyology, a name given by some to the common bleak, a small fresh-water fish, called in Latin Alburnus.

Ableo, in Geography, a town of Little TARTARY, lying between the river Dnieper and the Black Sea. E. long. 33° 15'. N. lat. 46° 20'.

Abluents, in Medicine, a name which some authors give to a sort of diluting medicines, suited to wash off from the external or internal surfaces of the body, any substances improperly adhering to them; they are either water or other fluids, and they are administered in the form of lotion, gargarium, or injection. They are more commonly known by the names of desters, destincters, and dilluents.

Ablution, from ablue, quod ab e loco, I wash away, in Antiquity, a religious ceremony in use among the Romans; being a sort of purification, performed by washing the body, before they entered on sacrifice.

Sometimes they washed their hands and feet, sometimes the head, and oftentimes the whole body: for which purpose, at the entrance into their temples, were placed marble vellaps filled with water.

Ablutions appear to be as old as any ceremonies, and external worship itself. Moses enjoined them; the heathens adopted them, and Mahomet and his followers have continued them; thus they have been introduced among most nations, and some a considerable part of most established religions. The Egyptian priests had their diurnal and nocturnal ablutions: the Grecians their sprinklings: the Romans, their sprinklings and lavations: the Jews their washings of hands and feet, before their baptisms: the ancient Christians had their ablutions before communion, which the Roman church still retain before their masses, sometimes after: the Syrians, Copts, &c. have their solemn washings on Good Friday: the Turks, their greater and lesser ablutions: their gait and water: their aman, tabaruit, gufsil, and abdef, &c.

Ablution is particularly used in the Romish church, for a cup of wine and water, which the communicants anciently took after the host, to wash it down, and help to digest.

The same term also signifies the water which serves to wash the hands of the priest who consecrated it.

Ablution, in Pharmacy, is a preparation which divers remedies undergo, by washing them in water, or some other fluid, proper to cleanse or free them of their impurities, and so to exalt their powers.

The usual way of doing this, is by cohabitation, or pouring the liquor distilled from the body, upon it again; and repeating this as often as it is necessary. See Deputation.

Ablution, in Surgery, a term, signifying the washing or cleaning a body. This is performed by injecting with a syringe, or by repeated affluences of a proper liquor, or by plunging the part itself into the fluid.

Abnakis, in History, Indians of North America, between New England and Canada, who are averse from labour, and take no pains in cultivating the ground.

Abner, in Scripture History, the son of Ner, and general of Saul's armies, who adhered to Saul during his reign, set his son Hlobholith on the throne, and supported him for seven years at Mahanaim, beyond Jordan, against the forces of David, who then reigned at Hebron, in Judah. He afterwards conceived a prejudice against Hlobholith, and went over to David, with the chiefs of the army and the elders of Israel. David received him with tokens of affection, which offended Jobab, by whom he was injudiciously killed; avenging himself, by this murder, of the death of his brother Absalom. His funeral was solemnized by David, who composed a mournful song in honour of him. Abner died A.M. 2956, ante A. D. 1648.

Abo, in Geography, a maritime town in Sweden, and the capital of the province of Sweedish Finland, is situated at the point in which the gulfs of Bothnia and Finland unite, and on the river Aurobjoki, which runs through this city. This is the most considerable town in the whole country, and has a good harbour. It has many good brick-houses, but they are generally built of wood, painted red. In 1226 it was erected into a bishop's see. In 1628 Gustavus Adolphus founded a gymnasium or seminary, which queen Christina converted into an academy in 1630, and endowed with the same privileges as that of Upsal. In 1779 it contained about 500 students. The only royal high court of judicature in Finland is held at this place; and here the governor of the province usually resides. The export trade consists of linen, corn, deals, flax, and iron. Abo is the 8th voting town in the Diet. It is 140 miles N. E. of Stockholm. E. long. 20° 13' 30'. N. lat. 60° 27' 10'. The effect of 12 years observations, viz. from 1750 to 1761, gives the mean annual temperature at this place, 40° of Fahrenheit. Kirwan's Estimate of the Temperature of different Latitudes, p. 60.

Abo-Slot, or Abo-Callo, is one of the most ancient fortifications in Finland. It stands on a peninsula near the mouth of the river Aura. In the 16th century king Erick XIV. was confined in this castle. It has often suffered both by the enemy and fire. Buffing.

Aboard, in Sea-language. See Board.

Aboasar, in Geography, a village in Lower Egypt, said to be the ancient Busiris.

Aboccis, in Ancient Geography, the Abuccis of Ptolemy, a town of Ethiopia, situate on the western side of the Nile, not far from the greater Cataract.

Abocro, or Aborrel, in Geography, a town near
near the river Ankobar or Cochré on the Gold Coast in Africa, which gives name to a republican province.

**ABOLA.** In Geography, one of the divisions of the Aequus in Abvorgia. It is a plain, or rather a valley, from half a mile to a mile broad; formed on the east and west side by mountains that are covered with herbage and acacia-trees to the very summit, and that become towards the south more lofty, rugged, and woody. On the top of these mountains there are very delightful plains, abounding with excellent pastures. In this valley there were many villages, which had cleared the banks of war, and which appeared his poor and wretched than other habitations of the country. A river of the same name flows through this valley, which has two branches issuing from the two adjoining ranges of mountains. Another river, called themere, rising in the caft, runs westward into the Abole. It also receives several other streams and torrents, as the Gogneri, Karmahii, Caceno, &c. which fall into it in different directions. Mr. Bruce found no fish either in the Abole or any of its tributary streams, which he accounts for by their being almost dry in summer and violently rapid in winter, so that the spawn and fish are both destroyed in different seasons by different causes. Bruce's Travels, &c. vol. iii. p. 581.

**ABOLITION,** Abolishing, in a general sense, the act of destroying a thing, or reducing it to nothing. Some derive the word from abole, ex ab & alae, and others from the Greek εκθέω, I destroy.

In our laws the *abolition* of a law, statute, or custom, is the abrogating or repealing it.

The leave given by a prince, or judge, to a criminal accus- cer, to deed from farther prosecution of the accused, is peculiarly called *abolition.* 25 H. VIII. c. 21.

Abolition is particularly used among civilians, for remitting the punishment of a crime. In this sense *abolition* is a lower species of amnesty, which takes off the punishment but not the infamy: liberat sed non notat.

Abolition is also particularly used, among Roman lawyers, for the annulling a prosecution, or legal accusation; and in this sense differs from amnesty and oblivion; because in the former, the accusation might be renewed, even by the same prosecutor, which in the latter was extinguished for ever. Within thirty days after a public *abolition,* the same accuser by the prince's licence, was allowed to renew the charge; after a private *abolition,* another accuser might renew it, but the same could not.

This kind of *abolition* is either granted in favour of the accused, or of the accuser; and is either public, granted by the prince or senate, on occasions of public rejoicings, victory, and congratulation; or private, fixed for to the prefect or judge, by one of the parties; frequently by the accuser himself, who after having embarked in the prosecution, by disclosing his name to the charge, could not by the Turpilian *conatus-confiditus* otherwise *defest* without incurring infamy. On such occasions the accuser would *petere abolitionem;* that is, move for an *abolition,* which was only granted, on his *fìning* fair and honest motives for withdrawing the charge; viz. inadvertency, youth, warmth, or the like; nor was it granted without the content of the accused; or if the accusation appeared to have been utterly false, or malicious, &c.

As to the accused, the charge against him was also *abolished* by the death of the accuser, or his being incapacitated from prosecuting by reason of *cœclæts,* or the like.—An action of *vain* was *abolished* by *dilimination,* a sentence of *condemnation,* by *judgment.*

*Abolition* was also used for expunging a person's name out of the public list of the accused, hung up in the treasury.

This was called *abolire nomen,* and, like the former, was either public, as that under Augustus, when all the names, which had long hung up, were expunged at once; or private, done at the motion of one of the parties.

By several laws in the Theodosian code it appears, that an *abolition* of debts was sometimes granted to the debtors to the *situs.* We have a medal of the emperor Adrian, wherein that prince is represented standing with a sceptre in his left hand, and a lighted torch in his right; with which he sets fire to several papers in presence of the people, who, lifting their joy and gratitude by lifting up their hands towards heaven. The legend is, Reliqua vetera H. S. mononis abolidi.

**ABOLI ineffa,** in Antiquity, a warm kind of garment, lined or doubled, used by the Greeks and Romans; chiefly out of the city, in following the camp.

The word is Latin, formed, as some imagine, from *bulla,* on the supposition that this vestment was garnished with those ornaments called *bullæ.* Others, denying this circumstance, derive it from the Greek επιβολη, of αβολος, αβολος, clothing.

Critics and antiquaries are greatly divided as to the form, use, kind, &c. of this garment. Papius makes it a species of the *toga,* or *gown;* but Nonius, and the generality, a species of the *pallium,* or cloak.

The *abolia* seems rather to have flood opposed to *toga,* which was a garment of peace, as the *abolia* was of war; at least Varro and Martial place them in this opposite light. Some, after Nonius, hold it to have been a military garb alone; others, after Papius, a senatorial; and Salamanus particularly supposes it to have been worn by the prelates in the provinces, and even by the prefects of the city when they administrate justice, which Ptoleus endeavours to refute.

Others will also have the *abolia* to have been used by the philosophers, particularly the Stoics, Cynics, &c. Lastly, others reconcile all the variances by making divers kinds of *abolia,* accommodated to different occasions and professions. Even kings appear to have used the *abolia,* Caligula was adapted at king Ptolemy for appearing at the false in a purple *abolia,* and by the eclat thereof turning the eyes of the spectators from the emperor upon himself.

**ABOMASUS,** *Abomasum,* or *Abomasium,* in Comparative Anatomy, a name given by old anatomists to one of the flomachs or ventricles of animals of the ruminating kind. See **Ruminant** and **Rumination**.

Beans that chew the cud are found to have four flomachs; viz. the rumen, or *magnus venter,* or *flomach,* properly so called; the *reticulum,* or *omus,* and *abomasus.* The *abomasus,* properly called the *nævi,* is the last of the four; being the place where the chyle is formed, and from which the food descends immediately into the intestines.

It is full of a fort of leaves, like the *omus;* but its leaves have this peculiarity, that, beside the membranes they contain of, they contain a great number of glands, not found in any of the first.

It is in the *abomasus* of calves and lambs that the rennet, or earing, is formed, with which milk is curdled.

**ABOMINATION,** in Scripture History, a term used with regard to the Hebrews, who, being shepherds, are said to have been an *abomination* to the Egyptians; because they sacrified the sacred animals of that people, as oxen, goats, sheep, &c. which the Egyptians esteemed as *abominations,* or things unlawful. The term is also applied in the sacred writings to idolatry and idols, not only because the worship of idols is in itself an abominable thing, but likewise, because the ceremonies of idolaters were almost always attended with licentiousness, and with actions of an infamous and abominable nature. To this purpose, Chrysostom (Opera, vol. 1. p. 645.);
ABORIGINES, or Aborijenes, in History, a name sometimes given to the primitive inhabitants of a country, or those who had their original in it; in contradistinction to colonies, or new races of inhabitants, derived from other places.

The term Aborines is famous in antiquity.—Though now an appellative, it was originally a proper name given only to a certain people in Italy; and both the reason and origin of it are greatly disputed among the learned.

Aborines then primarily denoted a nation in Italy, which inhabited the ancient Latium, or country now called România, or Campagna di Roma.

In which sense the Aborines are distinguished from the Janigene, who, according to the false Berofus, inhabited the country before them; from the Skuli, whom they expelled; from the Grecians, from whom they descended; from the Latins, whose name they assumed, after their union with Æneas and the Trojans; and lastly, from the Auloni, Volsci, Oenotria, &c. neighbouring nations in other parts of the country.

Whence this people came by the appellation is much disputed.

S. Jerome says, they were so called, as being, alscine ori- gines, the primitive planters of the country after the flood. Dionyphus of Halicarnassus, (Antiq. Rom. i. c. 10. apud Op. tom. i. p. 8. q. 11. ed. Oxon.) receives several opinions as to the origin of the appellation. Some, he says, allege that they owe their name to their being original inhabitants of the country, and because they were the founders of the race that occupied it, and that the denomination is similar to the Greek term ἀλσινοὶ or ἀλσινεῖς. Others consider the appellation as synonymous with, aborizen, and others again conceive them to have been originally Arcadians, and that their ancestors were the Oenotri, who migrated from Greece seventeen generations before the Trojan war, and settled in that country above 400 years before the Trojan war; and that they derived their name either from the mountains of Arcadia, qu. ἀλσινεῖς, natives of the mountains, or because they gave origin to the Latins, who being descended from them, called them Aborizen: that is, the people from whom they derived their origin: and to this opinion he himself inclines.

Aurelius Victor (de Orig. Roman.) suggests, that they were called Aborigenes, q. d. Aborizens, from ab, from, and errare, to wander; as having been before a wandering people, who, coming from different countries, met accidentally in Italy, and lived there by rapine; to which opinion Felius gives some credit. It is added, that Palaefrins, another name sometimes given them, is of the same import, and denotes vagabonds, like cranes.
Abo. Abo.

The Alorqines were the other original inhabitants of the country, settled there by Janus, as some imagine, or by Saturn, or Cham, as others, not long after the dispersion; and, as some think, before it; or they were a colony sent from some other nation; who, expelling the Siculi, who (according to Dion. Hal. lib. i. Ant. Rom. tom. p. 7.) were the original inhabitants, settled in their place; but whether these Siculi were not, in their origin, Arcadians, is perhaps; they were brought into Italy by Oenoneus, son of Lycaeus, more than 400 years before the Trojan war, is not certain. Some have maintained that this party, a second from Thessaly, a third under Evander, 60 years before the Trojan war, and another under Hercules, and another of Laconians, who fled from the severe discipline of Lycurgus, uniting together, constituted the Alcorqies; others trace their origin in Scythia; others again in Gaul; and others will have them to be Cumanites expelled by Jotham.

Abo. Abo. ABO.

ABORTION, Abortion, Aborsus, formed of ab, from, and iurus, to be born, in Midwifery, the premature exclusion of a fetus. It has been usual to affign names to abortions, occurring at different periods of utero-gestation. Those happening within the first seven or eight days, before the fetus or membranes have acquired such a confiquence as to retain their distinct form when excluded, are called effections; from that period to about the fifth or seventh month, they are called abortus, or miscarriages; from the sixth month, to any time before the end of the ninth month, premature labour.

Abortion may be occasioned by too fall, or too sparing a diet, or by taking food that is too rich and spirituous; by blows or falls; sudden frights, or any thing violently exciting the mind, whether joy or grief; frequent costus; bine abortus, primis gravidatis membris non infrequens nasci, sitis; cervix avuloribus; by dilitys, particularly fever; by profuse evacuations, as from large discharges of blood, whether happening spontaneously, or procured by art, and used in the cure of some acute diseases, as pleurisy; or by long continued and violent purging. Vomiting, if occurring spontaneously, though extremely violent, and continuing through the whole course of pregnancy, rarely occasions abortion; but when excited by the exhibition of sharp, astringent, or poisonous drugs, it usually continues until the fetus is excluded.

There are other causes of abortion, depending on the peculiar constitution of the uterus, or of the fetus. Thus some women, who are prone to breeding, are incapable of retaining their offspring longer than the fourth, fifth, sixth, seventh, or eighth month. In these cases, the fetus usually dies three or four weeks before the periods here mentioned; at the end of that time the separation of the blighted ovum from the uterus being completed, it is expelled by the pains, and ordinarily with as little difficulty or danger as a living and healthy fetus. The cause of this peculiarity is not known, neither has any appropriate remedy or means of preventing it been discovered. Sir Richard Manningham supposes it to arise from an incapacity in the uterus to bear more than a certain degree of distention. Sf mutier foepus abortum fortix, hi says, (Appor. med.) et codem temporc, ut 310, 400. ed 510. men, ob uteri angulw acutis, quae abscindunt factum amphis continens non potest. The same effect, however, would follow imperfection in the structure of the uterus, incapacitating it to live or increase beyond a certain time. We know there are children who, owing to a malformation of some of their organs, never live beyond twelve, fifteen, eighteen, or some definite number of months. Whatever may be the cause, it not unfrequently happens that women who have parted with five or six fetuses prematurely, shall afterwards go to their full time, and bear living and healthy children. Women who have miscarried once or twice will be prone to the same accident, at whatever period it happened; it becomes necessary therefore, when approaching that time, that they should use the utmost caution that nothing may occur to agitate or disturb them.

By some writers, women have been suppos'd to be more subject to abortions than brute animals, in consequence of the erect position of their bodies. That they more frequently suffer than other animals is well ascertained; but as this disposition is more incident to women living in large towns, and treating themselves too delicately, to those following sedentary and enervating occupations, or to those who are compelled to labour hard for their living, it seems likely that the accident is occasioned by those circumstances, rather than from any vice in their constitution.

From a very early period, attempts have been made to devise means of procuring abortion, without injuring the constitutions of the women, by the exhibition of certain drugs, as fain, colocynt, &c. but without success. It is remarkable, that although Hippocrates prohibited physicians from affiling in procuring abortion, he relates the case of a young woman whom he had recommended to dance and use other violent exercises for that purpose, in whom it produced the effect, and without materially injuring the woman. The more ordinary consequences, however, to be expected from such efforts, or from taking acrid and draffic medicines, are pain and inflammation of the womb, violent hemorrhage, which, though ultimately terminating in abortion, not unfrequently destroys the life of the woman also. These being modes found to be dangerous to the woman, and not certain in producing the proposed effect, endeavours have been used to destroy the birth by a more direct method, viz. by introducing a fillet, or some sharp instrument, into the uterus, which piercing the membranes, and thence giving vent to the liquor amnis, uterine contractions, or labour pains were produced, which continued until the fetus with its involucra were ejected. At what time this mode of procuring abortion was discovered is not known; no traces of it appearing in any of our old medical or chirurgical writers. Ovid, it is probable, alludes to it in the following lines:

--- sine crepere nota.

_Est pretrium parvus non leve vita more._

_Virga quid effeditis jubilecis uteris tali;_ 

_Et nondum natus dira venena doatis?_ 


Tertullian reprobates the practice, and mentions the kind of instrument with which the operation of breaking the membranes and destroying the fetus was performed, which flows it was not uncommon in his time. _Ego clam animam spiculum, (says this father, De Anima apud oper. p. 328. ed. Rigalt.) quo jugulatio ipsa dirigitur, eoque latrocinio sepsisse amplex, utique viventis infantis perremption._ Guy Patin says, a midwife was hanged at Paris.
Paris, for occasioning the death of a lady there, by an attempt to procure abortion by this method. On her trial she had frequently practised it with success; but, in this case, it seems, the instrument had pierced the body of the uterus, instead of passing through the os internum. This operation will be again noticed, when treating of those kinds of laborious parturition, where the difficulty is occasioned by the bones of the pelvis being too dilated, and the cavity thereof so reduced in size, as to render the passage of a full grown fetus through it totally impracticable.

In those cases, it has been lately discovered, the operation may be performed with perfect safety, and with equal advantage both to the child and to the mother. See Labour.

A peculiar delicacy, or irritability of habit, distinct from weaknesses, though perhaps rarely occurring, but in debilitated constitutions, may be also reckoned among the causes of abortion. This habit of body seems in a peculiar manner, and almost exclusively, to belong to persons living in the higher ranks of life, who use late hours, frequent large and crowded assemblies, and much in bed, and indulge in rich and delicate food. The sudden opening of a door, or appearance of a person not expected, or any thing exciting the least surprise, will often, in such constitutions, be sufficient to produce abortion. That this is not occasioned merely by weaknesses of constitution is evident, as very weakly, and even consumptive persons, are found to conceive more frequently, to be more tenacious of their offspring, and generally to produce larger and stronger children, than many women of superior general health.

As the causes of abortions, and the constitutions most prone to it, are so various, the modes of preventing it, or of conducting persons through it, must vary likewise. One of the earliest symptoms announcing an approaching abortion, is a sense of fulness, of weight, or heaviness, at the lower part of the abdomen; this is soon followed by pains in the loins and thighs, and if these pains unnoticed, which is not uncommonly the case, a discharge of blood, more or less profuse, according to the constitution of the woman, takes place; this, if accompanied with pains, recurring at intervals similar to those of labour, usually continues until the ovum is excluded. Sometimes the discharge of blood abates, or entirely ceases for six, eight, ten, or more days, and then recurs again, usually with greater violence; and intermissions of this kind sometimes happen three or more times, before the fruit is excluded. On the other hand, it sometimes happens, that after a woman has suffered two, three, or more effusions of blood in this way, they cease; the part of the placenta that had been detached remaining itself to the uterus, and the woman goes on to her full time. These circumstances only happen in those abortions that occur within the first three, four, or at the latest five months, which are rarely attended with danger. Discharges of blood occurring at a later period, although they also sometimes cease, and recur again at intervals, never completely leave the woman until the fetus and involution are excluded, which ordinarily does not happen until so much blood has been lost as to destroy the life of the fetus, and to put that of the mother also into extreme danger.

If a pregnant woman of a sanguine temperament, should be seized with pain in the loins, and with discharges of blood from the vagina, six or eight ounces of blood may be advantageously drawn from the arm, which will divert the current of blood from the part. The bowels are next to be opened, with some mild purgative; she must be kept quiet, but not confined to the bed; she put upon a cooling regimen, and take a powder consisting of twenty grains of nitre, and the same quantity of the compound powder of gum tragacanth, twice or three times in the day, mixed with barley water. A tea-spoonful may be taken every night, of an electuary consisting of, lentis eleutherei, two ounces; cream of tartar, and flowers of sulphur, of each two drams; jalap, one dram; syrum of roses, a sufficient quantity to give it a proper consistence. For women who are easily moved, a female, or half a dram of jalap, may be sufficient, or thirty grains of rhubarb may be substituted for the jalap. If the woman should be only three or four months advanced in her pregnancy, and the fetus should not be dead, or the ovum entirely separated from the uterus, the above may be sufficient to prevent it, and prevent the abortion. In the case of women of more relaxed and delicate constitutions, the bleeding must be omitted, but the eleytary with the rhubarb must be given every night, and instead of the powder with nitre and gum tragacanth, a decoction of bark, with a few drops of the vitriolic acid may be given; or the following:

\[\text{I. Mucilag. gunnii arabici 3ij.}
\text{Oleii terebinthini. gtt. xl.}
\text{Syrup. alb. \(3\)h. aquæ \(3\)v.}
\text{Spirit. nucis molchatae \(3\) \(n\). m. capiat agra cochlea. tria in die.}

If nausea prevails, so that the stomach with difficulty retains either food or medicines, or if the bowels are too loose, twelve or fifteen grains of spicenum can be given in a spoonful of water, as an emetic, and the following draught at night:

\[\text{R Pulv. radicis rhæ gr. vi. Confectionis aromaticæ. Gt.}
\text{Spt. nucis molchatae \(3\)i. Tinctura opjij. gtt. xij.}
\text{Aquæ \(3\)si. m.}

Under this treatment, if the fetus cannot be preferred, the hemorrhage will be restrained, and the abortion will happen without doing any material injury to the constitution.

Abortions occurring at the times we have mentioned, are rarely attended with danger, and never require manual assistance. Those occurring later, viz. after the sixth month, if the hemorrhage should not be restrained by the means here proposed, or should return, which usually happens, often require manual assistance, and must be treated in the same manner as when hemorrhage occurs in women who have attained the full term of gestation. See Labour.

Perfons administering drugs to pregnant women, with the view of procuring abortion, or even women taking medicines, or using means for that purpose, have in most civilized countries, and from a very early period, been subjected to certain penalties.

The ancient Greek legislator, Solon and Lycurgus, prohibited the practice of producing abortion. Whether or not it was permitted among the Romans, has been much disputed, between two learned modern civilians. It is certain the practice, which was by them called \textit{viserius cum inferte}, was frequent enough; but whether there was any penalty annexed to it, before the emperors Severus and Antonine, is the question. Noodt maintains the negative; and farther, that these princes only made it criminal in one particular case; viz. of a married woman’s practicing it out of resentment against her husband, in order to deprive him of the comfort of children; this was ordered to be punished by a temporary exile; \textit{siqua pregnantis cum viseribus suis intulit ut inimica marito filium praecipiat, temporalis exile correccionem}. He adds, that there was no general prohibition of the practice before Gratian and Valens. It is true we find in Cicer.
Cicero an earlier instance, of a woman punished for this fact; but it was in Miletia, a country not subject to the Roman laws.

Bryner-steck however denies, that a woman was allowed to drink the 

though not murder, was by the ancient law homicide, or manslaughter. But, he goes on to observe, the modern law does not look upon this offence in quite so atrocious a light, but merely as a heinous misdemeanor." 3 Sert. 50.

Abortion, among Curtius, signifies such fruits as are produced too early, and never arrive at maturity.

ARBOUR, something come before its due time, or before it has arrived at its maturity and perfection.

The term is applied by some writers on the materia medica to medicines that occasion an abortion in pregnant women. Medicines of this kind have also been denominated Ambloctia and Hectobia; and they have been commonly supposed to possess the power of promoting the natural birth, of forcing off the phænts, and even of expelling a dead fetus. But these powers, ascribed to medicines by the ancients, are now deemed imaginary, and such medicines are now hardly ever employed. Cullen's Mat. Med. v. p. 162.

Arboitur corn, in Agriculture, a dillerent of corn mentioned by M. Tillet, and suspected to be occasioned by insects. It appears long before harvest, and may be known by a deformity in the flanks, the leaves, the ear, and even the grain.

Arboitur flux. See Abortion.

Arboitur Itelum, is made of the skin of an abortive calf.

ABORTITES, or Abortedes, in History, a people bordering upon Bulgaria, in that part of Dacia contiguous to the Danube. Henry i. of Germany, summoned the Tower, in his zeal for the propagation of the christian faith, undertook, and actually effected the conversion of the king of these people. The kingdom of the Abortedes was a part of the ancient Vandalia, and is now called Mecklenburg.

ABOU HANIES, in Ornithology, a bird of Abyssinia, so called, because it appears on St. John's day; the terms signifies, father John. This is the seafon when the fresh water of the tropical rains is first known in Egypt to have mixed with the Nile, and to have rendered it lighter, sweeter, and more exhalable in dew; and accordingly it is the seafon when all water-fowl, that are birds of passage, return in great numbers to Ethiopia. This bird, according to Mr. Bruce, (Travels, &c. vol. v. p. 173.) is the Libis of the ancients. Its beak resembles in shape that of a curlew, and the colour of the upper part is green, and of the lower part black; and it is four and a half inches in length. The bone of the leg is round and strong, six inches long, and the length of the thigh part is five and a half inches. The height of the body, as it stands, from the sole of the foot to the middle of the back is nineteen inches. Its feet and legs are black; it has three toes before, armed with sharp strong claws, and a toe behind. The head and back part of the neck are brown; the throat, breast, back, and thighs are white. The largest feathers of the wings are a deep black for thirteen inches from the tail, and a space of six inches long in thickness, and the length of the tail along the back is also of the same colour. The measures and colours correspond to those of the embalmed this. See Pinto I. Birds.

ABOUALI, in Hydrography, a river of Palestine, which rises in mount Libanus, and flows with a rapid current into a romantic valley, where it is concealed by trees.

ABOUILLON. See Apolloa.

ABOUKIR, in Geography, a small town of Egypt, situate in the desert between Alexandria and Rosetta. It is the ancient Canopus, and distant, according to Mr. Savor, (Letters on Egypt, v. i. p. 49.) fix leagues from Pharos. Playn, (N. H. i. c. 31. tom. i. p. 253. ed. Hard.) who had collected the testimonies of antiquity, says, that it was formerly an island. Its local appearance makes this credible.
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dible. The grounds around it are so low, that the sea still covered a part of them in the time of Strabo, (lib. xvii. tom. 2. p. 1311.) The town, built upon a rock, which forms a handfome road for shipping, was out of the reach of inundations. Aboulir has been lately (viz. in 1758.) rendered famous by the battle between the English and French fleets, in which the British admiral, Nelson, obtained a signal victory, and for which he has been honoured with a painted. The place itself, though well fortified, and vigorously defended by the Turks, was taken by the French in 1799, and retaken by the English in 1801.

ABOUT, in sea language, the situation of a ship immediately after she has tacked, or changed her course by going about and standing on the other tack. About ship is the order to the ship's crew for tacking.

ABOUTIGE, or ABOOTISH, in Geography, a town in Upper Egypt, near the Nile, where they make the best opium in the Levant. It was formerly a large, but is now a new place, though governed by an Emir. It stands on the site of Abous, mentioned by Stephanus Byzantinus; the burgh of Settefe, a little above it, represents the small city of Apollo. N. lat. 26° 56'.

ABRA, a silver coin in Poland, nearly equal to the English shilling. It is current in several parts of Germany, and through the dominions of the Grand Seignor, at the value of one fourth of the Holland's dollar or fliam. See COINs.

ABRAXANEI, ABRAXAN, or ABRAXAS, in Biography, a learned rabbi, said to be descended from king David, and born at Lisbon, A. D. 1437. He was obliged to leave Spain with the other Jews, after having been confessor to Alphonfo V. king of Portugal, and to Ferdinand the Catholic. He resided at Naples, Corfu, and several other cities, and died at Venice in 1508, aged 71. Among the Jews he was denounced the sage, the prince, and the great politician. Some writers say, (See Acts. Liii. Nov. 1868, p. 530.) that, by negotiating bills of exchange, which was the business he followed at Castille, after he fled from Lisbon, and by practising the several arts and frauds of the Jewish people, he amassed prodigious wealth; that he oppressed the poor; that he aspired after the most illustrious titles, such as the noblest honours in Spain could not attain; and that being a sworn enemy to the Christian religion, he was the principal cause of that form which fell upon him and the rest of his nation in 1391, when they were driven out of the Spanish dominions. His Commentary on the Old Testament, which is scarce, is written in a clear, though difficult, style; and adheres principally to the literal sense. This book, which consists of detached parts, composed at different times, abounds with so much rancour against the christians in general, and the Roman Catholics in particular, that father Bartolocci was desirous that the Jews should be prohibited the perusal of it; and they were not allowed to read or keep in their houses his commentaries on the latter prophets. Biblioth. Rabbin. tom. iii. p. 876. 879. His other works are, A Treatise on the World against Antichrist, who maintains its eternity; a Treatise on the Explication of the Prophecies relating to the Melchizedek against the Christians; a Book concerning Articles of Faith; and some others of less note. The various perverctions which he, and other Jews suffered, soured his temper, and produced an inseparable hatred against the christians, which he has manifested in his writings; though, in company with them, he behaved with great politeness, and was cheerful in conversation. He was an affiduous student, and a very ready writer.

ABRACADABRA, or ABRACADABRA, a magical word, recommended by Strenus Sammonius, preceptor to the younger Gordian, as a charm, or amulet, in curing ills, and preventing other diseases, particularly the fever called by the physicians demitritus. See Scrib. Samon. de Medico. N. 53. p. 1598. fol. Mattaire.

To have this effect, the word must be written on paper, and repeated, omitting each time the last letter in the former, so that the whole may form a kind of inverted cone, (as in the margin,) in which there is this property, that which way ever the letters be taken, beginning from the apex and ascenfing from the left to the right, they make the same word, or as some would have it, the same sentiment, as is found in the first whole line. This paper must be suspended about the neck by a linen thread. According to Julius Africanus, another ancient writer, the pronouncing of the word in the same manner, will do as well.

ABRACADABRA is said to have been the name of a god worshipped by the Tyrians, so that wearing his name was a kind of invocation of his aid; a practice not more superstitious than that of some christians, who bear various things about them in expectation of their operating by sympathy.

ABRAHAM, in Scripture history, the celebrated patriarch, who was the father and founder of the Jewish nation, though it was never called by his name. He was the son of Terah, and the 10th in lineal succession from Noah by his secon{d son Shem, who lived till Abraham was 150 years old. He was born 372 years after the flood, and A. M. 2608, according to the Hebrew chronology, in Ur of the Chaldees, in the 150th, and not, as some have supposed, in the 70th year of his father's life, and removed with him, at the age of 76, A. M. 2076, into Haran, where Terah died at the age of 205 years. At the age of 75, i. e. 427 years after the flood, A. M. 2683, he migrated into Canaan, in consequence of the divine order and promise, recorded in the three first verses of the 12th chapter of Genesis. Shuckford (Conn. vol. i. p. 274.) supposes, that this promise was made to the patriarch before he dwelt in Haran (see Acts vii. 2.) and that it was 430 years before the law. (See Gal. iii. 17.) But the interval from the birth of Isaac to the law was 420 years; and therefore, he concludes, that the promise was made at Ur, thirty years before the birth of Isaac, who was born when Abraham was 100 years old, and that it took place much about the time of his removal to Haran.

Others (see Taylor's Scheme of Scripture Divinity, p. 211.) date the promise to Abraham at the time of his removal to Canaan A. M. 2083. A. D. 1921; and they reckon 420 years from this period to the Exod. Compare Exod. xii. 41. with Gal. iii. 17. See Blair's Chronology, II. 1. This promise, however, was the foundation of that grand scheme for preventing the universal prevalence of idolatry, and for preserving among mankind the knowledge and worship of the only true God, which, under several variations and improvements, was to reach to the end of time. For this purpose Providence selected the family of Abraham, which was afterwards formed into a nation, instructed in religious knowledge by God himself, and favoured with such extraordinary privileges and honours, among all other nations of the earth, as were in their own nature adapted to engage them, by the most rational motives, to adhere to God and his worship. The ground of this noble and extensive scheme, and of God's singular regard to Abraham and his posterity, was the COVENANT OF GRACE, the promise or grant of favours and blessings to mankind in Jesus Christ our Lord. In the conduct and accomplishment of this scheme, God required the patriarch to call himself
upon his Providence, by removing at his special command, from his own kindred and country, to an unknown distant land, which he would give him, as a resting-place of his posterity and future blessing. Accordingly, soon after his settlement in Canaan, probably within two or three years, according to the nature of the divine promise, that he should become a great nation, he was forced by famine to remove into Egypt. Many circumstances in the circumstances of the 432 years, during which the Israelites remained in this country, at this period. Here Sarah, the daughter of Haran, became the wife of Abraham, to be called his licit, was freely taken away by the king of Egypt: captivated by her beauty, desired to have made her his wife. But the king was punished in an extraordinary manner for the injustice of his conduct, restored her without violation, and gave orders, that Abraham, and his wife, with all that belonged to them, might safely depart from his dominions. The famine having ceased in Canaan, he returned to the situation near Bethel, which he had left, and where he had erected an altar, and devoutly acknowledged his happy deliverance Abraham, being under the necessity of separating from Lot, his nephew, on account of the increase of their substance, and the contention of their respective herdsman, removed to the plains of Mamre, in Hebron. Here he formed an alliance with three of the principal princes of the country, by whose assistance he recovered Lot, who had been taken captive, and restored him, his family, and his whole property, to his former habitation. A. M. 2092. At his return, as he passed near Salem,rippled to be the city afterwards called Jeru-alem, he met Melchizedek, who was king of that city, and "priest of the Most High God," and received from him tokens of special favour. Soon after this event the divine promise was again renewed to him, and accompanied with circumstances of peculiar encouragement. It was particularly revealed to him, that his posterity should be as the sand of the sea, and should be as the stars of heaven, and should possess the city of the children of Abraham. The meaning of this prophecy to Abraham, therefore, can only be this, that his seed from Isaac forward till he be a stranger in a land that was not theirs, for the space of 432 years, during some part of which they should be oppressed, and at length brought under bondage; which term being expired, they should find a happy deliverance. After the renewal of this promise, Abraham married Sarah, who was recommended to him by Sarah, and whom he children designed to adopt and educate as his own, according to the custom which was common in those times. By Sarah she had a son, who was called Ishmael. A. M. 2047. When the patriarch had attained the age of 99 years, A. M. 2107, A. D. 1817, God was pleased to ratify his former covenant with him, by changing his name from Abram, formed of 2N, "father," and melch, "God," to Abraham, derived from 2B & melch, "father of a great multitude," assuring him that he would make him the father of many nations, Gen. xii. 5. As a token and confirmation of the covenant now made with him, he enjoined him to be circumcised, and to circumcise all the males of his family: and he promised that, with- in a year, he should have a son by his wife, whose name was now changed from Sarah, q. d. my princess, to Sarah, the "prince." This son was to be called Isaac; to him belonged the covenant and promise: and in his seed all the nations of the earth were to be blessed. The promise of a son was again renewed by those celestial messengers, who announced to him the destruction of Sodom. His intercourse on behal of this devoted city, though in the like unavailing, forms a distinguishing circumstance in his history. Soon after this event, Abraham removed to the country of the Philistines, and sojourned in Gerar, where an incident occurred similar to that which had happened in Egypt. See ABRAHAM. Isaac was born at the appointed season, 452 years after the flood, and A. M. 2108. But within 35 years after this joyful event, upon which depended the accomplishment of the divine promise, and of the patriarch's hopes, Isaac was demanded as a burnt-offering, and Abraham was ordered to present the offering on mount Moriah. The event, with all the circumstances that attended it, is well known. The order was countermanded, and the patriarch, in consequence of this signal trial of his faith and obedience, obtained a solemn renewal of all the divine covenants and promises. In the year 488 after the flood, A. M. 2144, Sarah died at Hebron, and was buried in the cave of Machpelah, which Abraham purchased as a burying-place, of the sons of Heth, for 400 pieces of silver, amounting at the rate of 3s. for a shekel, 100l. of our money. This purchase was made, according to the custom of ancient times, at the gates of Hebron. Abraham having married his son Isaac to Rebekah, the daughter of Nahor, his brother, at the age of 141 years, took another wife, named Keturah, by whom he had fix sons, These he portioned, that they might not interfere with Isaac's inheritance; and they went to the call of Beersheba, and the land of Canaan, and settled in both Arabia, the Petrea and Deferta, where some traces of their names are still to be perceived. This venerable patriarch died in the 177th year of his age, 527 years after the flood, A. M. 2183, A. D. 1821, and was buried by his two sons, Isaac and Ishmael, in the cave of Mach- pelah, near Sarai, his wife.

To the above abstract of the history of Abraham, recorded in the book of Genesis, it may not be improper to subjoin a few particulars collected from other sources. Terah, the father of Abraham, it is said, (Suidas in voc. A$3400 and 240Xe, Lex. tom. i. & ii.) made statues and images for the purposes of that idolatrous worship, which had been transmitted to him from his ancestor Serug, and which he encouraged by example and exhortation. Some Jewish authors relate, (apud Genebrad. in Chron.) that Abraham purified the same occupation; and Maimonides (More Ne- vochim, c. 26.) says, that he was educated in the religion of the Sabæans, who acknowledged no deity but the stars, and that he was led by his own reflection to the belief of an intelligent Creator and Governor of the universe; but that he did not renounce paganism till the 50th year of his age; that he was brought up in the religion of the Sabæans, is an opinion adopted by Spencer, de Leg. Heb. Ritual. lib. ii. c. 1. y. vol. i. 270. See SABÆISM. Suidas (ubi ejusdem, informs us, that at 16 years of age he cautioned his father against seducing men to idolatry for the sake of pernicious gain, and taught him that there is no other God besides he who dwells in heaven, and created the whole world. It is added, that he destroyed the statues and images of his father, and departed with him from Chaldea. Other relations (Haidegger Hilt. Patriarch. tom iii. p. 35.) that his father deposed Abraham to fell his images in his absence, and that a man, who pretended to be a purchaser, having ascertained that he was 50 years of age, remonstrated with him for adoring at such an age, a being which is but a day old. Abraham, impref and confounded by this remonstrance, destroyed them all, excepting the largest, before
before his father's return; and he told him, that having presented an oblation of flour to the idols, the rout of them, in whose hand he had placed a hatchet, bewed the others to pieces with that weapon. Terah replied, that this was bantering, because the idols had not fene to act in this manner; upon which Abraham retorted these words upon his father against the worship of such gods. But he was delivered up by Terah to Nimrod, the Emperor of the country, and because he refused to work in the fire, according to his order, he was thrown into the midst of the flames, from which he escaped uninjured. Mr. David Levi, in his

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Lingua Sacer, has given an account of this tradition, extracted from Medragh Bereishith: and it is related by Jerome, (Trad. Hebraica in Genech,) who seems to admit its general credibility. The vulgar translation of 2 Efdras ix. 7, expresses, that he was delivered from the fire of the Chaldeans; and the ambiguity of the word ༩, which notes fire, as well as the birth-place of Abraham, seems to have given rise to this opinion. However, if we allow that Abraham, being born and educated in an idolatrous country and family, might have been addicted in early life to that superlition, it is certain that he renounced it, and that he was providentially removed from a scene of danger, and that he contributed to propagate just sentiments concerning the deity wherever he journeyed. The fame of his wisdom, piety, and virtue, spread far and wide among the nations of the world: this appears from the testimonies of Berofus, Hecataus, Nicholas of Damascus, cited by Josephus, (Antiq. l. i. c. 7. apud Oper. tom. i. p. 28. cd. Haver,) and also from what is said of him by Alexander Polyhillon, Eupolemus, Artapenes, and others, whose testimonies may be seen in Eusebius's Prep. Evang. lib. ix. chap. 16, 17, 18, 19. His name is mentioned with honour all over the East to this day. Josephus (Antiq. l. i. c. 8. tom. i. p. 30.) informs us, that he taught the Egyptians arithmetic and astrology; and we learn from others, (see Eusebius and Suidas, αρθηριον,) that he also instructed the Phcenicians in astronomy; that he invented the Hebrew characters and language; and that he wrote several books. Traditionary truth and fiction seem to have been blended in the accounts that are given of this eminent patriarch by the Jews, Arabsians, and Indians. Of the books ascribed to him, the principal seems to have been the treatise called Jetzirah, or the Creation, of which it gives an account. This is mentioned in the Talmud, and held in high estimation by several learned Rabbis. It was printed at Paris in 1552, and translated into Latin by Pofiel; and also translated into Latin, with remarks, in 1642, by Rittangel, a converted Jew, and professor at Konigberg. A book, called Abraham's Revelation, was dispelled by an ancient fect, under the denomination of Sethians. Abraham's Assumption is mentioned by Athanasius in his Synopsis; and Origen takes notice of a treatife, pretended to be written by him, in which two angels are introduced disputing about his salvation. The Jews also represent him as the compiler of some prayers, and of the 15th Psalm, and of a Treatise against Idolatry. Fabricius (Bib. Græc. tom. ii. p. 516.) informs us, that some apocryphal books of Abraham, which are now lost, are commended by Vettius Valens and John Firminus; and from Kirchern's Tractate of Libraries, p. 142, we learn, that all the several works, which Abraham composed in the plains of Mamre, are contained in the library of the monastery of the Holy Cross on Mount Amaria, in Ethiopia. The Indians believe this patriarch to have been the same with their great prophet Zu-rakir. According to the Arabs, who have given us a history of Abraham, very different from that of the Bible, he was the son of Azar, and grand-

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son of Terah; and the eastern heathens have a long tradition concerning Abraham's life, which differs very much from that of Moses. In a book, said to be in the French king's library, No. 792, which was written by Ephrem the Syrian, and translated from the Syriac into Arabic, upon Abraham's journey into Egypt, there is an amon on his death, pronounced by St. Athanasius, on the 28th of March: on which day the Coptic and Egyptian christians observe his festival. Among the Mahometans, the memory of Abraham is held in great veneration, and his name frequently occurs in the Koran. See CAABA. We are told by Ebn Shuwan, (ad. Ann. Hegira 513.) cited by D'Herbelot Bibl. Orient. Art. Abraham, p. 16.) that in the beginning of the 12th century, the tomb of Abraham having been discovered near Hebron, his body, as well as those of Isaac and Jacob, were found entire and uncorrupted. There were likewise some gold and silver lamps hung up in the cave, which was visited by multitudes. The Mohamines have such a reverence for this place, that they make it one of their four pilgrimages, the three others being those of Mecca, Medina, and Jerusalem; and the christians built a church over the cave, which the Turks afterwards converted into a mosque, and prohibited christians from approaching. The emperor Alexander Severus, (Lamprid. in Sever.) who knew Abraham only by the extraordinary circumstances related by Jews and Christians, conceived so high an opinion of him, that he ranked him with Jesus Christ among his gods.

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ABRAHAM, Rabbi, in Biography, was prince of the Jewish nation, and tutor to Aben Ezra. He foretold that the Messiah would be born under the same configuration or conjunction of Jupiter and Saturn, with Moses the Jewish lawgiver. According to his calculation, this was to happen 2859 years after the former, i. e. A. D. 1464, and two such conjunctions are said to have actually occurred within the 15th century, viz. in 1444 in Cancer, and 20 years after in Pisces; but instead of adherence, the Jews experienced only distress and difreps.

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ABRAHAM, R. Isaac Ren, a Jewish writer, who lived about the beginning of the 17th century. He was by nation a Poleander, but spent most of his time in the courts of Germany. His book, intitled, Chofuk Ernunah, i.e. Magna Fidei, was a violent attack on the christians religion, in which he examines the whole gospel and endeavours to explode all the proofs of it, and to confute the objections of Christians against the Jews. This book, which was composed against the disciples of Luther, was published in 1618, from a MS. which was become very scarce. It was translated into several languages, and very widely dispersed. The African Jews held it in high estimation, and from it they was brought into Germany by Wagenfeld, who inserted a Latin translation of it in his Tola Igaza Satone.

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ABRAHAM, Cypue, a Portuguese Jew, supposing by some to be a Chalifian, who, with Tobias Athias, translated the Bible out of Hebrew into Spanish. It was printed at Ferrara in 1553, and reprinted in Holland in 1630. The first edition of this Bible, which is the most valuable, is marked with scars at certain words, which are designed to show that these words are difficult to be understood in the Hebrew, and that they may be used in a different sense.

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ABRAHAM, of ABRAM, Nicolaus, a learned jewe, was born in the diocese of Toul in Lorrrin in 1580. He was made divinity professor in the university of Pont a Mousson, which office he held 17 years, and died Sept. 7, 1655. He wrote notes on Virgil and Nonius, a C: mentary on some of Cicero's Orations, in 2 vols. fol. a collection of theological pieces, intitled, Phara Pli. Tiph. and some other works.

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ABRAHAM,
ABRAM, named in Scripture, a Jewish rabbi, who flourished in Jerusalem about the middle of the 1st century. He wrote a book entitled, the Specer of Judah, which is an expansion of the prophecy of Jacob, and intended to confirm the notion of the Mosaic having actually appeared. Lange has given a particular account of this book, which he saw in MS. Hist. des Jud. i. ii. c. 36. § 14-21.

ABRAMBOE. See Abrasax.

ABRAMANTUS, or ABRAHAMITES, in Ecclesiastical History, a sect of heretics, who renewed the error of the Pau- lians.

They took their names from that of their leader Abraham, a native of Antioch, by the Arabs called Ibrahim; whence also the name Ibrahimish, given by them to this sect. The Abramants were about the close of the eighth century, and were suppressed by Cyrusaus, patriarch of Antioch.

The same denomination is also applied to a party of jews, who suffered death for the worship of images, under Theophilos.

ABRAMSDORF, in Geography, a populous large village in Upper Hungary. E. long. 19° 50'. N. lat. 46° 25'.

ABRAM'S GREEK, a creek which falls into Hudson's river in America, near the city of Hudson.

ABRAMBOE, a town in the kingdom of Ptoon on the African coast, in which is held a brilliant assembly of the natives from all parts of the kingdom, to celebrate, by dancing, and other diversions, the birthday of the day.

ABRAMIS, in Ichthyology, a name given by Balonius and others, to the cyprius latas, or dream.

ABRANTES, in Geography, a town of Estromadura in Portugal, seated on an eminence near the river Tajo, and encompassed with delightful gardens and olive-yards. It contains about 3500 inhabitants, four convents, and an hospital. It was fortified by Peter II., raised to a county by Alphonius V., and promoted to a marquisiate by John V., in 1718. W. long. 7° 18'. N. lat. 39° 13'.

ABRASA, in Surgery. See Abrasion.

ABRASAXAS. See Abrasax.

ABRASION, composed of the Latin ab, and rubo, to scrape off, a superficial excoration or ulceration of any part of the body: but the term is generally applied to a surface which has been rubbed off by external violence. The minute portions of abraded skin are not to be hastily taken away; as, by careful re-application, they may often there and unite, thus preventing the consequences of a recent wound. See Adhesion and Agglutination of Wounds.

Sore attended with excoration are denominated abrosis. The part rubbed off is technically named abrasiun. Vide Ortification de Morb. Curat. i. iii. c. 18.

ABRAVANNUS, in Ancient Geography, the name of a promontory and river of Galloway, in Scotland, so called from Aber, which, in Celtic, denotes the mouth of a river, and ren, a river. It is probably that small river which falls into the bay of Glenluce, a little to the south of the Muy of Galloway.

ABRAHAM, in Natural History, a name given by some writers to species of a red clam, used in England by the cabinet-makers, &c. to give a red colour to new mahogany wood; we have it from the Isle of Wight, but it is also found in Germany and Italy.

ABRAXAS, a barbarous word, denoting a power which predates over three hundred and sixty-five others, the number of days in the year.

Abraxas is a word of obscure origin: it is supposed to be technically compounded of the Greek letters, considered as numeral characters: according to the custom of the Greeks, who expressed their numbers by letters of the alphabet; the values of which in the present word stand thus: A 1, B 2, P 160, A 1, E 60, A 1, E 200; which added together make the number 365.

The word is usually written, among modern authors, abraxas, though as some hold, by a corrupt transposition of the letters S and Z, for abares, as it is found in all the Greek fathers, as well as on ancient stones. Irenaus indeed (lib. i. c. 23. p. 52. ed. Grabe) has abraaxas, but the reason may be, that the chapter in which the word occurs is only extant in Latin: so that though it be in Greek characters, the orthography is of Latin copyists or translators. — In strikings the word ought to be written in Greek characters, ABRAXAS, since, besides that the inventor of it spake that language, the word does not contain the number 365, when written in the Latin character. Hence a farther error in most books, which occurs in the smaller or running character, on account of the Greek sigma; this having in ancient inscriptions the same figure with the Latin C, is often rendered by a Roman C instead of S; whence abraxas for abraaxas.

Beaufobre (Hist. de Manich. tom. ii. p. 55, 56.) conjectures, with a very great degree of probability, that abraaxas, or abrafas, is derived from two Greek words, which signify magnificent Saviour. For the epithet ΛΑΧΑΣ, the first part of abrafas, is particularly applied, in the sense of magnificent or splendid, to Apollo and Bacchus, who, according to Macrobius, (Sat. i. c. 18.) are the same deities; and the second word of which abrafas is composed is ζωΝ, which is used by Homer for face, or ζω, which denotes salvation.

Many learned modern affirm, that the Babilidians used to call the supreme God Abraxas. For this they have the authority of Jerome (Adv. Lucif. p. 304.), and of the author of the additions to Tertullian's Book of Precautions, c. 46. But that these writers are mistaken, we may conclude from the better authority of Irenaus (lib.i. c. 25.), who informs us, that their opinion was, that the Father of all was ineffable, or without a name, and that abraenas was the first of their 365 heavens, or the prince of the angels that reigned in them. It is probable that they applied this term to the arcana of their philosophy, and not to their theology. Accordingly, Jerome affires us, (ubi supra,) that it is the same with Mythras, or the Sun, which is the deity worshipped by the Persians. Hence we learn, why abraenas is said to be the chief of the 365 heavens, or angels who reigned in them, and rule over the 365 days of the year; for the sun may, with great propriety, to preclude over all the days of the year, and in the hieroglyphical language, be said to contain in himself the parts of which the year is composed, and to rule over it. Abraxas is, therefore, a technical term, much in the spirit of the caballistic or oriental philosophy; which, joined with that hieroglyphical disposition for which the Egyptians were remarkable, will account for the emblematical figures that appear on several of those gems, called by Montfauccon (Pafæog. Græc. i. ii. c. 8.) abraexa. But there is no sufficient evidence that these belonged to the Babilidians.

Several have even suspected that they discover some trace of the gospel trinity concealed in this word; which they explain, by supposing it compounded of the initial letters of the Hebrew words Ab ben rouah, q. d. father, son, and spirit. Wendelin, canon of Tournay, and father Harduin, have given more precise explications of the word, according to this system. The former makes it stand for fatas, filui, spiritus sanctus, falsa a ligno: the latter, improving
Abrasas is also used, among Antiquaries, for a species of graven gem, on which the word abrasas is usually inscribed; supposed to have been worn by the ancient Greeks, Egyptians, and Carthagians, as an amulet or talisman against diseases.

If the above explication of the meaning of the term abrasas be just, we can easily account for the introduction of this practice. In the system of ancient mythology, Apollo and the Sun were the same, and Apollo was the god of healing. Hence, in the true spirit of hieroglyphics and mythology, these gems were undoubtedly used by the heathens, and probably by some supstititious christians, who being lately converted, retained a reliquy for their former abstractions, as amulets, or charms, to drive away aques and other diseases; and this also gave rise to the use of the word Abrasasabra for the same purpose. It is not unlikely that such were found among the orthodox as well as among the Babilians and other reputed heretics.

Abrasas are of divers figures and sizes: sometimes in that of rings to be worn on the finger; in which form they were supposed of great efficacy for driving away flies.

Abrasas are frequent in the cabinets of the curious: a collection of them, as complete as possible, has been much desired by several. There is a fine one in the abbey of S. Genevieve, which has occasioned much inquiry. They are chiefly of the third century; most of them seem to have come from Egypt, whence they are of considerable use for explaining the antiquities of that country. But they are much too numerous and too costly to have been the production and possession of the christians of the three first centuries, though they had all taken delight in such things.

Macarius, Chilëet, Capello, and Montfaucon, have written expressly on abrasas; the latter has given 56 plates of them, well filled, and he has divided them, for the sake of order and perlicuity, into seven different classes.

Abrasas have sometimes no other inscription beside the word; but more usually some symbol annexed to it. Befide which, we sometimes find other marks and words adjoining; as the names of faints, angels, apostles, and the ineffable name Jehovah itself, either at length, or in the abbreviation 1αΩ; sometimes the words σεβασθανθ Ερασι, Eros, or of the names of other gods; as Mithras, or Mithra; τυχων, Seme, Sol; άρχων; 1αΩ, or Seraph, the one jupiter; and the like. Sometimes we observe this sitting on a lotus, or Apis, surrounded with stars; Oiirs, Serapis, Harpocrates, Canopus; the cock, the dog, the lion, the ape, and the sphinx, which are well known symbols of heathen deities; sometimes monstrous compositions of animals, obscene images, Phalli, and Ithyphallic; in a word, every kind of thing which the Egyptians placed among their gods. The graving of abrasas is not uniform, rarely good; the reverse, on which is the word, is said to be sometimes of a lower and a more modern taste than the face. The characters are usually Greek, sometimes Hebrew, Coptic, or Hethranian; and sometimes of a mongrel kind, forged as it should seem on purpose to make their import imperceptible. It is disputed, whether or not the Veronica or Montreuil, or the Granite obelisk, mentioned by Gori, be abrasas.

Dr. Lardner, who, with an industry and accuracy for which he was distinguished, and by which he has amply served the cause of Christianity, has examined the particular class of these gems given by Montfaucon, and clearly proved that they are of heathenish origin. Many of the figures and inscriptions on them are exceedingly obscene and idolatrous, and could not be the production of any Christian sect whatever; but they must be pagan, and for the most part Egyptian. To this purpose, Deanebofe (obi fupra, cap. 4.) observes, that it is altogether incredible, that a sect, which made profession of christianity, should have adopted the monstors adored by the Egyptians; or that a man who boasted of deriving his doctrine from Matthias, and from an interpreter of St. Peter, and who received the gospels and the epistles of St. Paul, should make images of the deity; at a time when christians had the most execrable aversion to all sorts of images, even the most innocent. This learned writer has also urged a variety of irrefragable arguments against the opinion of thole, who maintain that these gems were the invention of the Babilians. From many of the figures themselves, produced by Chilëet, it appears that they are pagan, and of Egyptian origin, and could not belong to any sect of christians; and as for those gems, which have the names of Abraham, Isaac, or Jacob on them, or the God of these patriarchs, or the words, Sabaoth, Adonai, or Elze, these, he says, are the inventions of the Cabalists, or of the Egyptian magicians; and he has thus deduced, from his observations on Chilëet's figures, the same conclusion, which Dr. Lardner has drawn from those of Montfaucon. As for the names of angels, which Montfaucon affirms (Pal. Græc. I. ii. c. 8. p. 177.) to have been in use among the Babilians, it is evident, that those which he mentions were derived from the Orphes, as Origen (Cont. Cel. I. p. 295. ed. Cantab. opp. i. p. 655.) plainly informs us. After an elaborate investigation of this controverted subject, Dr. Lardner concludes in words similar to those of Deanebofe; 1. That abrasas was not the god of the Babilians. 2. That this name signifies nothing but the fan, which was never worshipped by them. 3. That the figures, both in Chilëet and Montfaucon, are, for the most part, Egyptian. 4. That there is no kind of proof that any of them belonged to the Babilians. 5. That those which have Iao, Sabaoth, &c. upon them, were the works of magicians, who never made any profession of christianity. 6. That some of these figures derived their origin from the Simonians and Orphes, who were not christians either in belief or profession. See Lardner's Works, vol. ix. p. 290-364.

ABREAST, a Marine term, expressing the situation of two or more ships, that lie with their sides parallel to each other, and their heads equally advanced. But if their sides be not parallel, then that ship, which is in a line with the beam of the other, is said to be abreast of her. When the line of battle at sea is formed abreast, the whole squadron advances uniformly, the ships being equally distant from, and parallel to each other; so that the length of each ship forms a right angle with the extent of the squadron, or line abreast. See LINE. Abreast, within the ship, denotes on a line with the beam, or by the side of any object aboard.

Abreast of any place, means off or directly opposite to it.

ABREIRO, in Geography, a small town of Tralos-Mantes in Portugal, in a district, which, according to Buling, consists of one parish. W. long. 7° 10'. N. lat. 41° 30'.

ABRETTENE, in Ancient Geography, a district of Mypha in Asia. Hence, according to Strabo (Geog. tom. ii. p. 861.),
p. 851.), the epithet \textit{Alecto}, given to Jupiter, whose
friend was Cleone, who, after being the leader of a gang of
soldiers, received signal favours from Antioch, and in the
Athenian defeat he won and went over to Caesar. As the
people were called \textit{Alecto}, and inhabited the country that lies be-
tween Ancyra of Phrygia and the river Rhenus. Cleone,

Abridging, in \textit{Laws}, is the reducing a compound
quantities, or \textit{equation}, to a more simple
expression.

To \textit{abridge} the equation
\[ a^2 + bx + cx + dx = 0, \]
\[ -b + a, \]
\[ -c + d. \]

All the known quantities \(-a - b - c\) of the second term are
\[ a^2 \]
\[ + bx + cx + dx \]
\[ a \]
\[ -b + c. \]

When the whole is brought into a single letter, \textit{the}
Abridge has published an absolute work in 2 vols. 4to. intitled, \textit{A Method of making
Abridgments.}

Abridgments of books are numerous. They are usually
said to have had their rise in the times of ignorance; to have
been one of the first fruits of that barbarism which ensued on
the decline of the Roman empire; and to have been unknown
in those happy days, when letters flourished among the Greeks
and Romans; yet we have some traces of them in those times.
Lord Bolingbroke, speaking of those who are employed in this
way, says, that "they do neither honour to themselves, nor
good to mankind; for surely the abridge is in a form below
the translator: and the book, at least the hitory, that wants
to be abridged, does not deserve to be read. They have
done, anciently, a great deal of hurt, by substituting many
a bad book instead of a good one; and by giving occasion
to men, who contented themselves with extracts and abridg-
ments, to neglect, and, through their neglect, to lose, the
invaluable original." \textit{See Epistle.} Notwithstanding
this reflection, abridgments are in many cases necessary and
useful; though it is a difficult task, and it requires peculiar
talents to perform the office of an abridge well; to preserve
the original author's facts, reasoning, manner, and spirit,
and to omit nothing that is essential either in argument or
illustration, and at the same time to retain what is reduc-
ant, to restrain needless amplification, and to avoid irre-
related or useless digressions, are objects of unquestionable
importance. When these objects are duly regarded, abridg-
ments cannot fail to make knowledge of various kinds more
cidy of access and of attainment, and by reducing the ex-
perience and labour of acquiring it, to extend its diffusion and
prevailence. To readers of various classes and description,
compendious epitomes of voluminous works will be accepta-
table and useful. The practice of abridging books that are
read, or the lectures of public professors in the various de-
partments of science, is a method of study, which has been
recommended by those who have experienced its utility, and
which has contributed in no small degree to make both the
judgment and the memory. Those who have accustomed
themselves to this practice have also acquired a facility of
composition, of which they have availed themselves on vari-
os occasions; whatever may have been the employment or
profligacy to which they have been devoted. We shall here
furnish two excellent specimens of that kind of abridgment
which we have recommended.

In the \textit{Essay on Miracles}, Mr. Hume's design is to prove,
that miracles which have not been the immediate objects of
our senses, cannot reasonably be believed upon the testimony
of others. His argument is,

"That experience, which in some things is variable, in
others uniform, is our only guide in reasoning concerning
matters of fact." Variable experience gives rise to proba-
bility only; an uniform experience amounts to proof.
Our belief of any fact from the testimony of eye-witnesses
is derived from no other principle than our experience of
the veracity of human testimony. If the fact attested be
miraculous, here arises a contest of two opposite experi-
cences, or proof against proof. Now a miracle is a violation of
the laws of nature; and as a firm and unalterable ex-
pense has established these laws, the proof against a mi-
raise, from the very nature of the fact, is as complete as
any argument from experience can possibly be imagined;
and if so, it is an undeniable consequence, that it cannot
be surmounted by any proof whatever derived from human
testimony."

In Dr. Campbell's \textit{Essay on Miracles}, the author's
principal aim is to shew the fallacy of Mr. Hume's argu-
ment; which he has most successfully done, by another single
argument, in the following manner:

"The evidence arising from human testimony is not fully
derived from experience; on the contrary, testimony hath
a natural influence on belief antecedent to experience."
The early and unlimited attest given to testimony by chil-
dren gradually contracts as they advance in life: it is,therefore, more consonant to truth to say, that our dif-
dence in testimony is the result of experience, than that our
faith in it has this foundation. Besides, the uniformity
of experience in favour of any fact, is not a proof against
its being revered in a particular instance. The evidence:
 arising from the single testimony of a man of known
veracity, will go farther to establish a belief in its being
actually verified. If his testimony be contradicted by a few
others of the same character we cannot withhold our attest
 to the truth of it. Now, though the operations of na-
ture are governed by uniform laws, and though we have not
the testimony of our senses in favour of any violation of
them; still, if in particular instances we have the testi-
mony of thousands of our fellow-creatures, and those
too men of strict integrity, swayed by no motives of am-
bition or interest, and governed by the principles of com-
mon sense, that they were actually witnesses of these vi-
olations, the constitution of our nature obliges us to be
lieve them."

These two examples contain the substance of about 400
pages.

For abridgments of the common law and the statutes, see
\textit{Digest, Law, and Statutes.}

Abridging, in \textit{Laws}, is particularly useful for the short-
ening a count or declaration, by subtracting some of the
substance of it.

A man is said to \textit{abridge} his plaint in assize, or a woman
her demand in an action of dower, when, having put any
lands therein which are not in the tenure of the tenant or
defendant; and non-tenure, or the like, is pleaded to that land
in the abatement of the writ; they are brought to \textit{abridge},
 i.e. to defit from and leave that parcel out of the demand;
and pray that the tenant may answer to the rest, to which
he has not yet pleaded any thing.—Though the demandant
has
has abridged his pleas, or demands, yet the writ still remains good for the relief. The reason is, that such writs run in general, and do not specify particulars. See 21 H. VIII. c. 2.

ABRINCATARUM opifimus, in Ancient Geography, the town of the Abrincata or Abrincini, now Arrancina, in France, situated on an eminence in the south-west of Normandy, near the borders of Brittany, on the English Channel. W. long. 1° 16'. N. lat. 48° 40'.

ABRIZAN, or ABRIZHIAN, derived from Abrius, which signifies in Persia, a vessel proper for pouring out water; the name of a feast observed by the old Persians on the 13th day of the month Tir, which nearly corresponds to our September, with abundance of idolatrous superstitions. This heathenish festival was apparently preparatory to the descent of the rain in thec countries, being about the time of the autumnal equinox, and has been partly adopted by the Mahometans. Mr. Harmer (Observations on Scripture, vol. iii. p. 10.) has availed himself of the practice at this feast, to explain the Jewish ceremony of pouring out water at the feast of tabernacles, alluded to by our Saviour, John, ch. vii. After the return of the Jews from their captivity in Babylon, Zechariah (ch. xiv. xvi. xviii.) connects attaining the feast of the tabernacles with obtaining the rains of autumn, which are of such consequence after the drought of a Syrian summer; and therefore (says the ingenious writer) this rite was probably then practised, and the pouring out of water in the temple, with solemnity, as before God, underfoot to be a religious prognostic of the approach of rain, or a morally instrumental and procuring cause of its speedy coming. Might not (he adds) the returning Jews think of adding some memorial of Jehovah's being the giver of rain to that ancient national solemnity, which had been enjoined by Moses, to be observed just about the same time of the year with that of the Persian festival, which that people solemnly ascribed to some deity they worshipped, but which the Jews knew was the gift of Jehovah?

ABROCHMENT, or ABROCIMENT, ABROCAMEN- tum, in some ancient Law-writers, denotes the act of ingrafting or buying up commodities by wholesale, before they come into the open market, in order to sell them off dear by retail, otherwise called forefalling.

ABROGATION, from the Latin abrogare, I repeal, the act of abolishing a law, by authority of the maker.

In which sense the word is synonymous with abolition, repealing, and revocation.

Abrogation stands opposed to retention: it is distinguished from derogation, which implies the taking away only some part of a law; from falsification, which denotes the adding a clause to it; from abrogation, which implies the limiting or restraining it; from dispensation, which only lets it aside in a particular instance; and from antiquation, which is the refusing to pass a law.

ABROHANI, or Mallemolli, the name of a kind of mufflin, or clear white cotton cloth, brought from the East Indies, particularly from Bengal; being in length sixteen French ells and three quarters, and in breadth five eighths.

ABROJOS, or Basos de Bolona, in Geography, a bank formed by several small rocks and lilies, east of Turk's island. W. long. 60° 40'. N. lat. 21° 5'. A deep channel of the breadth of three leagues lies between this bank and the island.

ABROKUS, in Botany, a name used by some of the Latin writers, for the bromus, or avena fletis, the wild oat; and by others for the orobus, or bitter vetch. The Greeks originally used the word, and that not only for these two vegetables, but in a much larger sense, understanding by it any herb resembling the plants cultivated for the use of the table, but not effulent. The Greeks and Romans had a way of expressing the boiling of pulse or herbs, by words specifying the eating of them; thus the Greeks expressed boiled things by brocha, βροχα, and the Romans by maffale. Virgil uses the word for the peace, and Phoebus, for all effulent things that were boiled: hence these baudard peace and oats were called orobhus, non maffale, not fit for boiling or eating.

ABROLHOS, in Geography, dangerous shoals about 50 miles from the coast of Brazil, and about the island of St. Barbe. S. lat. 18° 22'. W. long. 37° 45'.

ABROMA, in Botany, composed of z and βροξ, q. d. not fit for food, is used in opposition to Theobroma, as a genus of plants belonging to the natural order of Cucumiferes, the Malpighia of Juificus, and the 18th class of Pohl's Phascharadand. The generic characters are as follow: the calyx is a five-leaved perianthum, with lanceolate, acute, spreading, and permanent leaflets; the corolla has five petals, larger than the calyx, with obovate, arched, concave, obtuse claws, hairy at the end, erect, and inereted at the base into the nectar, and oval, obtuse, spreading, ciliate borders, contracted at the base into recurved little claws, on which the chief claws are placed; and a small pitcher-shaped nectar, divided into five segments, which are obovate, hairy, erect, recurved, and arched; the stamina are five membranaceous, very small filaments, growing on the nectar between the segments, enarguate-trifid, with three anthers on each filament, that are twin and kidney-form; the pistil is a subcylindrical, subulsive, with five subulate styles, and acute stigmata; the pericarpium is an ovate, membranaceous, five-winged, five-beaked, and five-celled capsule, with folded partitions; and the seeds are numerous and subovate, within an oblong membranaceous aril, fixed in a double row to the central edge of the partitions, which are thickened and longitudinally bearded, and without a receptacle. There are two species, viz. the Malphas erubescens, a tree, with a straight trunk, yielding a gum when cut, and filled with a white pith like the elder; it flowers from June to October, and its fruit ripens in September and October; it is a native of New South Wales and the Philippine Islands, and was introduced into Kew gardens about 1770, and is a hot-house plant, requiring great heat, and much water; and Wheler's Abrum, so called by Roeing, in compliment to Edward Wheler, Esq. of the Supreme Council in Bengal; this is a shrub with a brown bark, a native of the East Indies, and is not known in Europe. Miller's Dict. by Martyr.

ABRONO, in Botany, a name given by Serapion, and others, to the heart-yia; called also abrisi.

ABROSTOLA, in Ancient Geography, a town in Phrygia, which, according to Ptolomaeus and the Peutingerian Table, is about 23 miles from Ammurius. Cellarius, vol. ii. p. 89.

ABRATONIOIDES, in Botany. See Artemisia, Protela, and Seriphium.

ABRATONIOIDES, in Natural History, a name given by Baulin to the Madrepora maricata of Linneus and others.

ABRATONUM or ABROTUM nas. See Arte- misia, and Southernwood. Abrotanum fumina. See Santolina, and Lavender-Cotton. See also Erioccephalus and Tanacetum.

ABROTTONUM, in Ancient Geography, a town and harbour on the Mediterranean, in the district of Syrtis Parva, in Africa; one of the three cities that formed Tripoli.
ABRUG-Rivas, in Caragola, a populous town of
Tennessee, in the district of Westfield, the residence
of the Mac office, and the chief of the metal towns. It
is situated amongst mines of gold and silver. L. long. 23° 24'.
N. lat. 36° c.

ABRUTION, in Surgery, a term of the same signification
with ABRUPTION.

ABRUS, in Botany, of a ${\text{seg.}}, {\text{sect.}}$ or delicate,
so called from the external tenderness of the leaves, is a genus of
the natural order of Leguminosae, and the 17th class of Dios-
delphus. The $\text{fruits}$ are very large, the seed is white, the pods
are rigid, not opening and containing the seed. It is frequently
found in the Nile. It is a leguminous plant.

ABSALOM, in Scripture History, the son of David, by
Maach, daughter of Talmai, king of Geshur, and brother
of Tamar, who was dishonoured by Ammon, David's son
by another mother. For this injury, Ammon was annihilated
by Absalom at a feast which he prepared for the royal family.
He then took refuge with Talmi, in the country of
Geshur; and soon after he was restored to favour, he
engaged the Ishmaelites to revolt from his father. Having been
proclaimed king at Hebron, his father was under a necessity
of leaving Jerusalem, where Absalom was received by the people.
He and his army, however, were soon routed by
David's forces under the command of Joab; and flying into
the forest of Ephraim, his hair was entangled in the branches
of an oak, and in this situation he was killed by Joab and
his arm-bearer, A. M. 3380, ante A. D. 1024. David,
who had ordered his life to be preferred, lamented his death
with excessive grief. The extraordinary weight of Absalom's
hair, which is Gated (2 Sam. xiv. 26.) at " 200 shucks
after the king's weight," has been considered by critics and
commentators as a difficulty, which is not easily solved. If
we allow with Dr. Cumberland, (Effays on weights, &c.,
p. 123.) that the Jewish shuck of silver was equal to half an
ounce, or 240 gr. 4760, 200 shucks would be equal to 6$\frac{1}{2}$
pounds. Josephus (Op. t. i. p. 586.) supposes the 200
shucks to be 7 minims, and each minim to be 24 pounds,
and consequently the weight of the hair to be 12$\frac{1}{2}$
pounds, which is still more incredible. For the solution of
this difficulty, it has been supposed that the shuck in this passage denoted a weight in gold equal to the value
of the silver shuck, or half an ounce, and thus reduce the
weight of the hair to abt 5 ounces. Others suppose,
that the 200 shucks signify, not the weight, but the value
of the hair. Others, again, are of opinion, that there has
been an error in transferring the Hebrew copy; so that the
number of shucks being expressed by the letter $q$, which
denotes 20, was mistaken for $\text{q}$, or 200, or that $\text{q}$, which signifies
nifies 4, was substituted for 7, or 200. If the last of these suppositions be admitted, the 4 shekels, by Joseph's estimate, would be equal to a quarter of a pound, and by Cumberland's valuation 2 ounces. The learned Bochart in an elaborate dissertation on this subject, (apud Opera. tom. i. p. 883, &c. ed. Willem.) reduces the weight of Absalom's hair to about 2 pounds, which, considering the various circumstances mentioned by him, is by no means incredible.

ABSCEDENTIA, in Surgery, denote morbid parts which are in a state of separation. See Absce.

ABSCHARON, in Geography, a peninsula adjoining the Caspian Sea, and abounding with numerous and productive sources of naphtha and petroleum, and with salt lakes. On this peninsula is situated the city called Baru.

ABSCESS, in Surgery, from abscedo, to separate, or abs and cedo, to retire; a cavity containing pus, or a collection of puriform matter; called Abscessus by the Latins, and Ἀφεξης by the Greeks. The term Empyema is used to designate those In pneumata which form in parts not contiguous to the integuments of the body, especially large Suppurations within the chest or belly; and it is sometimes applied to collections of pus in the skull, the orbits of the eyes, the maxillary sinuses, the joints, &c. Abscesses likewise obtain other denominations, according to their seat; as Panaris, in the finger; Angloph, in the greater angle of the eye; Hypopyon, in the anterior chamber of the eye; Vomica, in the parenchymatous substance of the lungs; Bubo, in the arm-pit or groin; Parotis, behind the ear; Parulis, in the gums, &c. &c. These apppellations are explained in their respective places. We shall now proceed to the general doctrine and treatment of suppurations; after which, will follow some remarks on abscesses of particular parts, requiring peculiar management.

The proximate cause and formation of Abscesses.

This morbid state is always preceded by an inflammation of the vessels from whence the pus has issued. If the purulent matter be well formed, there has been a previous increase of arterial action, a throbbing in the parts adjacent, an exquisite degree of sensibility, augmented animal heat, diffusion of the minute blood vessels, elasticity of the muscular fibres, and an effusion of serum, or of coagulable lymph from the arteries immediately affected. These phenomena are followed by a gradual diminution of the pain, heat, redness, tension, and throbbing, with a deposition of puriform fluid into the surrounding cellular membrane.

Actual suppuration having now taken place; if the pus lies near the surface of the body, a cream-like whitening soon be perceived in some particular point, near the middle, or towards the inferior side of the abscess; an elevation or prominence next occurs, and a fluctuation may be felt underneath, which becomes more distinct as the matter approaches the surface; the pain also is considerably abated, the brilliant appearance of the skin declines; and, if the collection of matter be large, there is usually an attack of shivering, accompanied with febrile symptoms, &c.

The general Seat of Abscesses.

In general, if not always, the matter of an abscess is primarily deposited in the cellular membrane, which surrounds or lies contiguous to the inflamed vessels; except when the secreting arteries terminate and empty themselves in a natural cavity; for example, in the thorax or abdomen. As the texture of the cellular substance admits of easy diffusion, the pus gradually diffuses itself, and forms an extensive reservoir, which either ruptures spontaneously, in a part affording the least resistance, or is evacuated by an artificial opening. When pus is confined by a firm adhesion, or by an aponeurosis, or is situated very deeply among parts that resist its pressure, one or more interfaces will be sometimes formed of considerable extent; the aperture of which may be at a distance from the original seat of the disease; and if the matter should exit in a very large quantity, the gravitating force of the fluid will give it a tendency to some depending spot. Thus it happens, that matter formed under the temporal mafles may be discharged into the mouth, or pus accumulating in the loin may descend to the lower part of the thigh. We are, therefore, not to imagine the point where the pus makes its appearance by a protrusion externally, to be always the focus or centre of the abscess; although it is generally the most proper place for its evacuation. Some judicious remarks on this subject, by the late Dr. W. Hunter, are contained in the Medical Observations and Enquiries, vol. ii. p. 57, &c.

General Indications in the Treatment of Abscesses.

When a practitioner has ascertained, from the preceding and concomitant symptoms, that an abscess exists, (for this disease has sometimes been confounded with an hernia or aneurism,) he should carefully determine whether or not the confined pus ought to be evacuated, and what intermediate steps should be pursued. It may be a question, in some cases, if the suppuration be complete, or sufficiently advanced for an operation. In other cases it may happen, that the tumor ought not to be opened, though the maturation be perfect. At other times the matter, from its situation, ought to be evacuated speedily, lest it should injure the contiguous parts. Regard must also be had to the general state of the patient's health, especially if the suppuration under which he labours be extensive, and has arisen spontaneously. In cases of this kind, which occur after a fever, it will be indifferently necessary to administer such medicines as are adapted to the nature of the internal complaint, as well as to employ appropriate topical remedies to the abscess. When it has been determined to open the tumor, the surgeon should confider in what manner this may be best accomplished, whether by the scalpel, the cautic, or the foton; whether by a single opening, or several; by discharging the pus at once, or at different times.

The various Methods of opening Abscesses.

1. The ancients, and especially Albuscinus, used to open abscesses by the application of an actual cautery. But the unnecessary and terrific apparatus of hot-irons being now laid aside, all the advantages of exciting a further degree of inflammation, &c. previously to evacuating the pus, may be obtained by milder remedies. When an abscess is seated in a glandular part, and has been very tardy in advancing to a state of maturation, (as is particularly the case with serousul and venereal tumors,) it will be often better to open them with a cautic than by any other means. The chief grounds of preference in favour of the cautic are, that it tends to augment the inflammation and suppuration; it diminishes the subjacent glandular swelling; it gives free vent to the confined matter; it promotes healthy granulations; it is much less likely to be followed by troublesome sinuses, or by a sore with loose and callous edges, than when a simple puncture or incision has been had recourse to; and it may be employed with patients who have an infirm.ountable dread of the knife. An unfeemly fear is, however, a not unfrequent consequence of the cautic; and on this account, it is not so eligible in the face or neck, where a cicatrix ought, if possible, to be avoided. The method of preparing and applying cautic substances, in this
And other chieff surgical cases, is explained under the head of Abrasion.

2. An incision or a puncture is employed rather than the cauter, where the foramen propius is left out only a part of the contents of the abscess are free; where it is necessary to limit the extent of the artificial opening to certain dimensions: where the pus has too deep for the precaution, operation of an elegant abscess lances; where an immediate outlet is required, and danger is apprehended from delay; or, where it is requisite to make a wide incision, for the purpose of facilitating the discharge, or applying external medicaments to the bottom of the sore. The precise circumstances requiring a variety in the plan of treatment, will be explained in the paragraph which follows, while we describe the different kinds of abscesses that occur in several parts of the body.

3. Another mode of opening abscesses is by the sehn, which consists in pressing a fickle of soft thread or silk through the prieves of the tumor, by means of a sphen-needle. This practice is very common in the veterinary art, but is not much employed on the human subject. Sections are apt to produce divisions between the skin and subjacent muscle; the fear which they leave, however, is generally but little, and for this reason they are sometimes advantageously had recourse to in superficial collections of matter about the neck and face, where suppuration is likely to continue a long while. They are also used in certain cases of abscess near a joint, or other important part, which might be injured by the scalp or cautery, or which does not admit of a wide orifice being made, so as to expose the abcessed surface to the air.

Treatment of particular Abscesses.

There are certain general principles in the management of abscesses, from which surgeons do not greatly deviate in common cases; such, for example, as the applying of warm and stimulant applications to the part affected, where the intention is to accelerate the suppuration: when the pus is to be evacuated, they not only make an artificial opening, but afford the daily discharge by compresses, or by lightly filling the orifice with airy dressings; and, when there is a tenacity in the fore to granulate, they remove all external obstructions, and use such gentle means as are calculated to aid the healing processes of nature: at the same time internal remedies are administered, according to the nature of the symptoms, and the state of the patient's constitution. But, we shall proceed to illustrate these general remarks by an example.

Suppose an extensive inflammation of the phlegmonous kind to have taken place in a robust young person, upon a flabby part of the body. If no effective topical means have been used to allay the pain, heat, and tension; if no general or local bleeding has been employed; if the patient be not abstinence in his diet, nor has had recourse to purgative remedies; under such circumstances it is very probable the inflammation will advance rapidly, and terminate in complete suppuration. In this latter stage of the case, warm emollient poultices and foentations should be applied three or four times a day; and, if the inflammatory symptoms become excessive, the cooling regimen, with moderate bleeding, and mild saline purgatives may be advantageously employed. These last should, however, be cautiously and sparingly used, lest the suppuration process be too far checked or intercepted. When the pus has forced its way towards the surface of the limb, and is nearly ready to burst from the tumor, (which will be known by a palpable fluctuation of the matter, and by the integument becoming flaccid,) pressure suggests that a sufficient opening should be made for the free and perfect evacuation of the contents of the abscess. But there are circumstances which sometimes forbid our waiting till this critical period: the matter may be contained within a cell; it may be retained by a thick and firm capsule lying over it; for want of an outlet, it may be actually re-absorbed into the general system, and circulating with the blood, may produce very serious consequences to the patient's health: in order, therefore, to prevent the inconveniences which might ensue from long waiting, a judicious surgeon foreseeing the evil, will evacuate the pus by an early opening. In making his incision, it should be an invariable rule to cut in the direction of the muscular fibres; left, by a transverse wound, some important part be deprived of its action through life; by neglecting to observe this rule in an important of the forehead, an ignorant operator deprived his patient of the power of opening his eyes, so that he was obliged to pass up his eye-brows with adhesive plasters, in order to enjoy the benefit of vision. It is also necessary, in using the scalpel, to recollect the situation of neighbouring blood-vessels and nerves; taking the precaution to employ a grooved director, whenever there is the smallest danger of cutting these organs. The subsequent dressings, bandages, &c. &c. will be nearly the same as are required in common ulcers or wounds; for an account of which, to avoid prolixity, we refer the reader to those articles. But it will now be proper to point out the plan of treatment to be adopted in some peculiar kinds of abscesses.

Abscess of the maxillary sinus. The cavity of the cheekbone, Antrum Highmorianum, is lined with a delicate vascular membrane, which, when it inflames and suppures, produces great pain in the upper teeth, nose, and the eye of the side affected; it is also very common for people with this complaint to have a severe pain in the forehead, where the frontal fissures are placed; but still these symptoms are not sufficient to distinguish the disease. Time must disclose the true cause of the pain, for it will frequently continue longer than that which arises from a diseased tooth, and will become more and more severe; after which, a redness will be observed on the fore-part of the cheek, somewhat higher than the roots of the teeth, and an induration at the same place, which will be considerably circumscribed; this hardness may be felt rather highly situated on the inside of the lip. The method of cure consists in extracting one of the dentes molares from the affected side; and then perforating through the socket into the bony cavity. A mild injection may afterwards be employed to cleanse the sinus, and be repeated as occasion requires. Consult Goof's Cates, Hunter on the Teeth, and Bernheim's Handbuch.

Abscess near the Anus. Any of the cauces of inflammation, whether internal or external, may produce this disease. It is generally low and infectious in its progress, involving the rectum, and adjacent cellular membrane in its ravages; for the most part it is painful and tedious, occasioning deep, violent, and callous orifices, which demand prompt attention from the surgeon. See Fistula. The chief indications are, to alleviate the pain by oilsters, fomentations, and emollient poultices; to make a free opening at the pus is fairly within reach of the knife; to divide all the sinuses, if they communicate with each other, so as to effect the general outlet; and, when the intestine has been hard or perforated, by the confined matter lying upon it, to rip it up with a curved bistoury guided by the operator's finger. Recourse must also be had to internal medicines whenever the patient's health is deranged; and indeed, without such collateral aid, the surgeon's efforts will frequently be in vain. Mr. Pott's observations on this sub-
jeft deserve particular attention.—See the article Fistulous Ulcer.

Abscess in the Grain and Arm-pit. The inflammation and tumefaction which occur in these situations, generally arise from a diseaie in the absorbent glands; sometimes they are occasioned by an injury sustained by a distant lymphatic vessel, communicating with the inflamed gland; and not infrequently such glandular affections are the consequence of a malignant constitutional disorder, such as the Plague or Venereal Disease, when they are denominated Buboes. See these terms in their respective places. From whatever cause abscesses arise in the absorbent system, they are mortally tedious and difficult to cure. See Absorben ts, and their Diseases. But when they happen in the groin or axilla, it is especially requisite to avoid making deep incisions, on account of the large blood-vessels there situated: in other respects they require no peculiar management, except that, being very low to suppurate, it will often be necessary to apply stimulating plasters or cataplasm; and when they arrive at a state of perfect maturation, it will much accelerate the cure to evacuate the pus by a caustic instead of a puncture or mere incision. A fibrinous habit of body very commonly gives rise to glandular enlargements; in such cases it will, therefore, be proper to employ the appropriate internal means, without which external remedies will often prove fruitless. See Scrofulous Tumors and Ulcers.

Abscess in the Loins; otherwise called the Psoas or Lumbar Abscess. The large muscles situated within the loins, and their connecting cellular fulness, are very liable to inflame, and form extensive collections of pus. These are so important and fierce, even under the most favourable circumstances, that comparatively few persons recover from their effects. This condition should urge practitioners to adopt decisive means of relief in the earliest period of the complaint, and never to make light of the symptoms which indicate a fixed inflammation in the lumbar region. When pus has actually formed, we ought not absolutely to despair, but the principal hope lies in preventing its formation; it is, therefore, of great consequence to ascertain the exact state of the patient when he first applies to the surgeon. An incessant lumbar abscess may be suspected, if the patient has been lately exposed to any of the exciting causes of inflammation; if a dull and constant pain affects him in the deep seated muscles of the loins; if this pain be aggravated in raising and rotating the thigh; if a sense of tightness or confinement be felt within the belly, or near the groin, accompanied with external tenderness to the touch; if there be much difficulty in standing erect, or in lying at full length; and if, in addition to these symptoms, the patient be of a delicate and scrofulous habit of body. When matter is formed in considerable quantity, a new set of symptoms and a more decided character will be attached to this disease: the sufferer will experience nocturnal exacerbations of fever, with frequent rigors, inquietude, and lack of appetite; wailing of the body, night sweats, hectic complaints, and an external protuberance in the vicinity of the abscess. The matter, however, does not uniformly fluctuate in any particular spot, but may be felt sometimes about the loins, near the hip, or in the groin, and sometimes at the waist, or towards the bottom of the thigh. This tumor will generally diminish, owing to the retrocession of the pus, on placing the patient in an horizontal position. During the increase of the suppuration, there will often be such a tension of the symptoms, that the patient imagines himself in a state of recovery, until a spontaneous rupture takes place in the swelling, or it requires an artificial opening. Now and then some of the lumbar vertebrae become cavous, from the pressure of the contiguous pus, and the lower extremities are paralyised: the large blood-vessels may be eroded, and there, a speedy termination is put to the patient's existence.

The early remedies to be employed in this disease, before suppuration has commenced, are free topical blood-letting, by the repeated use of fifteen or twenty leeches, or by the scarificator and cupping-glass; the exhibition of saline purgatives; a mild vegetable diet; perfect tranquillity and rest; with repeated blisters, or a large caustic, over the affected part of the loins. But, as suppuration advances, the diet is to be improved; some animal food and wine must be allowed; tonic and acid medicines are to be employed; with country air, moderate bodily exercise, warm tepid-bathing, and cheerful company. When the suppuration is far advanced, if it be judged proper to make an outlet, the best method is to evacuate the pus by a very small oblique aperture, with a broad lancet or crotan. Mr. Abernethy advises us to empty the abscess early and completely; then to bring the lips of the wound in contact, and by means of lint and sticking plaster to keep them together; and over these to apply a suitable bandage. The wound heals, in general, without much difficulty; and requires dressing only once in two days. When the skin again projects, from the pressure of the subjacent matter, another puncture may be made; and thus, the evacuation is to be repeated as often as shall be necessary, avoiding any permanent exposure of the cavity of the abscess. Among the means which have been successfully employed on these occasions, are emetics, injections, opium, cinchona, and electricity; but for a more detailed account of the treatment, we recommend the perusal of Mr. Abernethy's Ellysia, and Mr. Bell's Sylliem of Surgery.

Abscess in the Muscles of the Belly. The principal object in this case, is to prevent the matter from bursting internally; since such an event might prove fatal. The surgeon should therefore open the abscess early, and endeavour to use those kinds of bandages, or compresses, which may obviate future collections, and the formation of painful ulcers.

Abscess of the urinary Bladder. When an accumulation of pus or mucus occurs in the bladder, mild emollient injections may be used by means of a syringe and catheter. This practice has been lately taken notice of as new; but it was recommended by the Arabian physicians, and by some of the oldest European practitioners, who perhaps took the hint from Albuscins.

Abscess under the Cranium, within the cylindrical bones. No other remedy can be here advised, for giving free vent to the confined matter, than perforating the bone with a trephine.

Abscess under the Sternum. When pus lies immediately under the chest-bone, within the duplicature of the mediatinum, the surgeon will not hesitate to apply a trephine. An interesting paper on this subject may be seen in the 15th number of the London Medical Review and Magazine. Mr. Bliss's Observations on a successful case of this kind, are likewise contained in the 4th volume of that work, page 310.

Abscess of the Thorax. See Empyema.

Abscess of the Breast. The mammary abscess may be produced by any of the remote causes of inflammation, but is most commonly occasioned by a redundancy of milk soon after parturition. In general it might be prevented by an immediate application of the infant to the breast after delivery, or at least before they are turbid with milk. See Inflammation of the Breast. When pus is actually formed, a soft, warm, emollient poultice, composed of bread and milk, or of a decoction of poppies and laurel meal, should be constantly kept upon the part, and renewed every three or four hours;
at the same time carefully suspending the enlarged breast, with an alkenkerchief spread under it, and tied behind the neck. It is very rarely proper to make any artificial opening in these abscesses; they should be permitted to burst of themselves, and be pouched as long as the hardness or inflammation continues. During this painful period, the child must be tucked by the healthy breast; for it rarely happens that the milk is pure during a state of inflammation, or that the mother can bear the irritation of her child's attempt to draw the nipple.

It is here necessary to apprise mothers that the true milk-abscesses never degenerate into a cancer, as many persons have ignorantly imagined. Those peals of society, called Cancer-curers, often impose on anxious wives, and persuade them that they have cured cancers of the breast, when none ever existed! At other times, they keep up a false alarm, to the great detriment of women’s health, and the furtherance of their own base designs. See the articles Cancer and Scirrhus.

During the tedious suppurating process, if the patient be not fangrene and robust, it will sometimes be proper for her to live on strong nourishing broths, with animal food, and porter, and to have daily recourse to tonic medicines. Without these means all external applications may prove fruitless. When the abscess leaves a deep ulcer, it should be dressed very lightly with mild warm digestives; and cold air must be guarded against in the convalescent stage, after all the dressings shall have been discontinued. The hardnes in the breast, or around the cicatrix will generally subside of itself; but if it should not, a little oil of sweet almonds, either alone or mixed with palm-oil, should be gently rubbed over the breast twice a-day. In lieu of these, a piece of fresh butter may answer the purpose. Sometimes, however, it is necessary to administer cinta and calomel to reduce the glandular inflammations; now and then superadding the mercurial liniment. But the treatment must vary according to circumstances.

Abscess of the Eye. See Hypopyon.

Abscess of the Ear. See Otalgia.

Abscess of the Gums. Simple gum-boils require no peculiar management: they may be opened with a lancet when the matter lies superficial; but, if they arise from decayed teeth, or a curious jaw-bone, the tooth affected, or the decayed portion of bone, must be removed before the cure can be effected. The mouth may be frequently rinsed, in order to keep the parts clean, and the breath sweet, with a mixture of warm wine, honey, and diluted vinegar; or with some tincture of myrrh and water. See the article Teeth.

Abscess in the Hip-joint and its Injudts. Spontaneous discharges of the hip are very insidious and dangerous. The first symptoms of an approaching disorder in this part too often pass unobserved, or lighted, even by the patient himself. Perhaps it begins with a trilling degree of weakness, lameness, and walking of the limb; which, if it be attentively examined, will be found a little elongated, and likewise depressed on the mates of the affected side. After some time, there will be a pain felt as if it were situated in the knee, especially during the night; but this joint, nevertheless, remains in a state of perfect soundness. The patient soon begins to frown the affected limb, by bearing chiefly on the other leg, and by elevating the heel of the affected side. As his strength fails, he will be seen to grasp the disordered thigh during the act of walking; and before night he will be complaining of unaccustomed weariness. Though he may be naturally alert and cheerful, he will, as the complaint augments, show a great aversion to move; and, in aiming to produce quick exertions, there will be a sudden lassitude, or even danger of falling. The affected limb will afterwards be kept in a bended position as much as possible, and a tendernefs is complained of in the vicinity of the hip-joint. In febrile subjects, the inflammation sometimes advances more rapidly, the general health suffers in proportion to its ravages, the appetite fails, debility and emaciation succeed, night sweats, colliquative diarrhoea, and other hectic symptoms supervene; in short, the local complaint becomes aggravated, suppuration then discovers itself, the exterior part of the thigh enlarges, he concealed pus fluctuates, the limb shortens and is contracted, the various joints yields a fetid puriform discharge, and the head of the thigh bone becomes displaced, or forms an immovable Anchylosis.

Now and then the progress of this disease varies from the course we have described: there may be no external outlet for the matter; suppuration may not be distinctly perceptible; the febrile symptoms may not be very urgent; and the patient may be carried through the different stages of his complaint, with but a small share of bodily pain. This disease, however, most frequently goes on to a fatal termination, involving the ligaments, the cartilages, and bones of the joint in one dreadful destruction.

The general curative means to be pursued in these cases, resemble those we advised in the limbar abscesses: but, too commonly, the aid of the surgeon proves ineffectual. If the subject of an hip-disease be febrile, it may be proper in its insipient state, to administer the vegetable tonics, with preparedatron, and small doses of calomel; at the same time, prescribing the warm sea-bath, country air, local bleeding, passive motion, abstinence from wine, milk diet; and, if the complaint advances, the use of perpetual blisters, caulics, siffes, or feotions, are to be especially relied on. See the treatment of Arthropusosis and White-swelling.

M. Petit, De Haen, Pott, and others, have written on this subject; but, the most satisfactory treatise we have seen, is that of Mr. Ford, intitled, "Observations on the Diseases of the Hip-Joint," 1794.

Abscess of the Abdominal Viscera. Any of the contents of the belly may be the seat of an abscess: the most frequent and remarkable are, a suppuration of the Liver, the Kidneys, and the Mefenteric. In these cases, the peculiar symptoms will distinguish the part affected, and the general principles before laid down must be attended to. When the pus fluctuates externally, and there is a well grounded hope of its being evacuated by an artificial opening, no time should be lost; as it might prove fatal to suffer the spontaneous rupture of a large abscess into the cavity of the abdomen. If there be any particular constitutional affection, the medicinal treatment adapted for such diseases must be like-wise had recourse to. See Hepatitis, Icterus, Scrofula, Tabes Mesenterica, Enzyma, Nephritis, Gastritis, Cystitis, Enteritis, &c.

Abscess of the Thoracic Viscera. As all abscesses are preceded by inflammation, the peculiar nature and order of the symptoms which precede the formation of pus in the thorax, or its contents, will guide the practitioner in his diagnosis. See the articles Carditis, Pneumonia, Pleuritis, Vomica, Phthisis, &c. If matter be seated in the interior substance of the lungs, it will probably find its way into the bronchia, and be coughed up from time to time; but if the pus lies near the surface of that viscus, it is more likely to be discharged into the cavity of the eheft, forming an Empyema. As an evacuation into the bronchia is most desirable, we should ufe all our endeavours to solicit a discharge of the pus in that way. The chirurgical operation
operation for an empyema is described in its proper place.

From what has been said in the foregoing paragraphs, it will not be difficult to determine on the plan of treatment in other cases of abscess. The principal authors to be consulted on this subject are Severinus, Hidadus, Wileman, Heister, Van Swieten, Sharp, Pott, Bell, and Kirkland. Some curious cases are also related, or referred to, in the Bibliothèque Cholet de Medicine;—the compilations of Mangetius, Bernstein, and James;—the Memoirs and Transactions of different learned Societies; and in the works of Bonetus, Forellus, Lufmannus, Tulpiaus, Hilianus, Morgagni, Hortilius, Stalpart, Vander Viel, &c. &c.

ABSCISE, Abscessa, in Conies, a part of the diameter or transverse axis, of a conic section, intercepted between the vertex, or some other fixed point, and a semiordinate. Such are the lines AP, AP, &c. (Tab. Conies, fig. 20.)

A b s c e s s, in a more general sense, is a part or segment of a line, terminated at some certain point, cut off by an ordinate to a curve. As the abscess may commence either at the vertex of the curve, or at any other fixed point; it may be also taken either upon the axis or diameter of the curve, or upon any other line drawn in a given position. Hence there may be an infinite number of variable abscesses, terminated at the same fixed point at one end, whilst the other end of them is at any point of the given line or diameter. In the parabola, each ordinate has one abscess; in the ellipse, or circle, it has two, lying on the opposite sides of its diameter. In the hyperbola also two, both of which lie on the same side of the diameter. It may be observed, in general, that a line of the second order, or a curve of the first kind, may have two abscesses to each ordinate; a line of the third order may have three abscesses to each ordinate; a line of the fourth order may have four; and so on. The use of the abscess is, in conjunction with the ordinate, to express the nature of the curve, either by some proportion or equation including the abscess and its ordinate, with some other invariable line or lines; and hence every different curve has its own peculiar equation or proportion by which it is expressed or defined. When the nature and properties of curves are expressed by algebraic quantities, the abscess is commonly denoted by the letter x.

In the parabola the abscess is a third proportional to the parameter and semiordinate; and the parameter a third proportional to the abscess and semiordinate.

In the ellipse, the square of the semiordinate is equal to the rectangle of the parameter into the abscess, subtracting another rectangle of the same abscess, into a fourth proportional to the axis, parameter, and abscess.

In the hyperbola, the squares of the semiordinates are to each other as the rectangles of the abscess into another line, composed of the abscess and the semiordinate axis. See Conic section, Ellipse, Hyperbola, and Parabola. See also Circle and Curve.

Abscission, in Rhetoric, is a figure of speech, when beginning to say a thing, we break off short, as supposing the matter sufficiently signified, by what has been already said. Cicero, ad Heren. lib. iv. cap. 77.

For an instance: one of her sex, age, and beauty, to be seen alone, at such an hour, with a man of his character—I need say no more.

Ab s i f f i o n is a species of Ellipsis, or Suppression. Scaliger distinguishes it from precision and suppression.

Abscession, in Surgery, denotes the act of taking away some morbid or superfluous part by an edged instrument. In this sense abscession amounts to the same with the Greek "exareia." Cowper speaks of the abscession of a leg; which is more properly called amputation. The abscession of the prepuce makes what we call circumcision. Abscession of the ears is a kind of legal punishment inflicted on persons. In some countries they also practice abscession of the nose on traitors in an army, as a punishment reputed worse than death.

Abscession is more properly used for the operation of cutting away some soft part of the body, when deprived of or grown hurtful. In which sense, abscession differs from amputation, in that the latter is of a solid or bony part, the former of a flabby or membranous one; yet they are sometimes confounded. We say the abscession of a muscle, lip, cheek, or the like. Mr. Shippen gives an instance of the abscession of a portion of the intestines not being mortal. Phil. Tranf. N° 283.

Cheilidens, and some later surgeons, have removed several inches of mortified intestine in cases of diarrhœa hernia.

Abscession is sometimes used by medical writers to denote the sudden termination of a disease in death, before it arrives at its decline. Celsus frequently uses the terms abscessa, to express a loss of voice.

Alchemists also speak of an abscession of the light of a planet, by another planet obstructing it, and joining a third before it. Abscession held a deterioration.

Absconsa, a dark lanthorn used by monks at the ceremony of burying their dead.

Abscence, in S. otis Law, is applied to a judgment pronounced, when a person cited before a court does not appear. No person can be tried criminally in abscence.

Absentee, in History, denotes a person, who is absent from his station, employment, or country. The term has been commonly applied to Irishmen, who reside in Ireland, and do not reside in the country. A parliament under this denomination was held at Dublin, 8 Hen. VIII.

Absinthius phalena, a species of phalena found on the Absinthium.

Absinthites, Absinthiac, or Absinthis, something tinged or impregnated with the virtues of absinthis, or wormwood.

Bartholin mentions a woman whose milk was become absinthiated, and rendered bitter as gall, by the too liberal use of wormwood. Act. Med. tom. ii.

Vino absinthi, or polium absinthiato, wormwood wine, is much spoken of among the ancients, as a wholesome and agreeable drink, and even an antidote against drunk men; though some have charged it with being off-sauce to the head, and liable to cause fever, cephalagias, vomitings, uterine fluxes, &c. Ray also makes it a preventative of vomitings. According to the common account, it is made by infusing the leaves of the plant in a quantity of water. But Pehr thinks it should rather be prepared by fermentation, in order to correct the crudities of the plant, and call forth its volatile spirit. Pauli prepares it even without a distillation. Dr. Boyle prefers the aqua absinthi, or wormwood-water, taken in a small quantity after meals, to the wine; as being less liable to affect the head, and fill it with vapours.

Absinthium, in Botany, is compounded of the privative particle a and lint., delioia, phalera, alluding to the disagreeable taste of the plant. See Artemisia and Wormwood,
ABS

wood, Achillia, Anthemis, Parthenium, Senecio, and Tanacetum.

Anthemis is also a name given to other plants, by differen
t authors; as to dwarf phracon, with leaves divided after the
manner of wormwood; also to the Alpine ebanomis,
with fowther-wood leaves.

ABSIS. See Absis.

Absolute; in a general fense, something that flands
free or independent.

Absolute, in Medecines, denotes a being whose whole
effed does not conffit in a mere habitude or relation to
another.

In which fense absolute flands opposed to relative or re-
spective.

Absolute is more particularly underftood of a thing
which does not proceed from any cause, or does not fubfift by
virtue of any other being, confidered as its cause.

In which fene, God alone is absolute.

Absolute, in this fene, is synonymous with independent, and
flands opposed to dependent.

Absolute also denotes a thing’s being free from condi-
tions or limitations.

In this fene, the word is synonymous with unconditional.

We fay, an absolute decree, absolute promise, absolute ob-
dience.

Absolute government; that wherein the prince is left sole-
ly to his own will, being not limited to the obfervation of any
laws, except those of his own difcretion.

When the Danes made their king absolute, in 1660, they
declared him abfolved from his coronah oath.

Absolute number, in Algebra, is the known quantity or
number which poaffes one entire fide, or part of an equa-
tion; and it is that which Vieta calls homogcneum com-
parisones.

Thus, in the equation $a_n + 16a = 36$, the absolute num-
ber is 36; which is equal to $a$ multiplied by itself, and added
to 16 times $a$.

Absolute equation, in Astronomy, is the fum of the optic
and eccentric equations.

The apparent inequality of a planet’s motion, arifing
from its not being equally diftant from the earth at all times,
is called its optic equation; and this would fubfift if the planet’s
real motion were uniform. The excentric inequality is
caufed by the planet’s motion not being uniform. For the
illustration of this, conceive the sun to move, or appear to
move, in the circumference of a circle, in whose centre the
earth is placed. It is manifest, that if the sun move uni-
formly in this circle, then he must appear to move uniform-
ly to a fpectator at the earth; and, in this cafe, there
would be no optic or excentric equation. But fuppose the
earth to be placed out of the centre of the circle; and then,
though the sun’s motion should be really uniform, it would
not fo appear, when wef from the earth; and in this cafe,
there would be an optic equation, but not an excentric one.
Imagine farther, the sun’s orbit to be, not circular, but
eccentric, and the earth to be in its focus, it is evident that
the sun cannot appear to have an uniform motion in fuch
ellipse; and therefore, his motion will be subjed to two equa-
tions, viz. the optic and the excentric equation. See Or-
thal Inequality.

Absolute Gravity, motion, place, space, lime. See the
respective foldlantives.

Absolute Ablative, in Grammar. See Ablative.

Absolutely, in a general fene, flands opposed to
relatively. It is also used for unlimitedly and unconditionally. In
which fene, the fchoolmen oppose it to secundum quid.

Moreover, it is used by Divines, in opposition to decla-
ratively.

The church of Rome holds, that a prelat can forgive sins
absolutely: the protestants fay, only declaratively, and mi-
imally.

Absolutely, in Geometry, is taken for entirely, or com-
pletely. Thus we fay a thing is absolutely round; in
contradiction from that which is only partly so, as a
sphere, cycloid, &e.

Absolutely, in Grammar; we fay, a word is taken ab-
olutely, absolutoriun, when it has no regimen or go-
vernment. Thus, in the phrase, We fhould pray without
cenfing. The word pray is taken absolutely, as it governs
nothing.

ABSOLUTION, Absolution, in the Civil Laws, &c,
the fentence of fentence, whereby a perfon accused of any crime,
is acquitted, and declared innocent.

Among the Romans, the ordinary method of pronouncing
judgment was this: after the cafe had been pleaded on
both fides, the praetor used the word discern, q. d. they
had faw what they had to fay; then three ballots were
distributed to each judge, marked as mentioned under the
article A; and as the majority fell of either mark, the ac-
cused was abfolved or condemned, &c. If he were abfolved,
the praetor difmissed him with videtur non ficeps, or juce vide-
tur feiceps.

ABSOLUTION, in the Canon Law, is a juridical aet,
whereby a prelat, as a judge, remits the sins of fuch as, up-
on contention, appear to have the conditions requisite for this
purpose.

The Romanists hold abfolution a part of the sacrament of
penance: the council of Treut, feft. xiv. cap. iii. and that
of Florence, in the decrees ad Arminos, declare the form
of the effence of the sacrament to lie in the words of abfolution,
I abfolve thes of thy sins.

The form of abfolution used by Tetzel, in Germany, is
preferred in Seekend. Comment. lib. i. p. 11, and a tran-
flation of it is given by Robertson in his Hist. of Ch. V.
vi. p. 117. It extended to all ecclesiatical censures, and
to all sins, however enormous; it remitted all punishment in
purgatory, and restored thofe who were fuppofed to have
the benefit of it to the holy sacraments of the church, to
the unity of the faithful, and to the innocence and purity which
they poaffeffed at baptism; fo that when they died, the gates
of punishment fhould be flut and thofe of the paradife of de-
light opened; and if they did not die immediately, this
grace remained in full force when they were at the point of
death.

The formula of abfolution, in the Romish church, is ab-
solute: in the Greek church, it is depracitory; and in the
churches of the reformed, declarative.

In the church of Rome there are divers other political ab-
solutions; as,

Absolution a fexis, which is neceffary where a perfon
has been vicifnes to the execution of fentence of death on a
criminal, or has any other way disqualified himself for the
holding of a benefice.

Absolution ad cantalam, is that granted to a per-
son who has lodged an appeal against a fentence of ex-
communication, by which the force of the cenfure is sus-
pended.

It being a maxim, in the papal jurifprudence, that the
fentence flands good, notwithstanding any appeal; this
form of abfolution is sometimes granted until the ifue of his
appeal he known: by means hereof, fome articles, at leaft,
of his excommunication, are taken off; infomuch that per-
fons may converse with him without danger: and besides, in case of death, his sentence is supposed to be of some avail to him.

Absolution is chiefly used among protestants for a sentence, whereby a person, who stands excommunicated, is released or freed from that punishment.

Absorbents, from absorb, to drink up, in a general sense, denote substances which possest the faculty of absorbing, or swallowing up others; such are ashes, clowers, plants, &c.; and cals of various kinds. Ashes are absorbent with respect to water, though not in the degree supposed by Aristotle, from whom we derive a vulgar error, that a pot full of ashes will absorb as much water as it would contain if it were empty. Cloves absorb moisture such a degree, that we are told, if care be not taken in importing them, to keep water, wine, and other liquids at a distance from them, a certain quantity of cloves will, in two days' time, drain a whole hoghead of wine. See Absorbents in the Materia Medica.

Absorbents, or Absorbing Vessels, in Anatomy, denote a minute kind of vessels found in animal bodies, which attract and imbibe any fluid that is brought near their mouths. These vessels are fo minute and transparent as not to be discovered in ordinary dissection; but by great labour, they have at length been detected to abound in every tribe of animals. As these vessels are transparent, their contents are visible, which circumstance occasioned them to receive the different denominations of lacteals and lymphatics. The former were so called, because they imbied the chyle, a milky fluid from the bowels; whilst the latter, containing much lymph, which they had taken up from all the interstices of the body, were therefore named lymphatics.

The lacteal vessels were first noticed at the Alexandrian school by Erasistratus, who observing that they extended from the region of the liver to the bowels, erroneously concluded that they were a peculiar system of vessels, destined for the nutriment of those organs. They were not again particularly noticed till Acelli, in Italy, in 1622, perceiving that the contents of the interstices, and these vessels were similar, rightly conjectured that they absorbed the fluid which they contained from the bowels.

Pecquet, in France, shortly after the publication of the discoveries of Acelli, on opening the large veins near the heart, discovered the chyle not yet incorporated with the blood, and the vessels by which it was poured into the left subclavian vein, and which proved to be the principal trunk of the lacteal and lymphatic vessels, and was named from its situation, by Bartholine, the Thoracic Duct. A little afterwards, in 1651, Rudbeck a Swedish, and Bartholine a Dutch anatomist, discovered vessels resembling the lacteals in structure and office in other parts of the body, and which they named, from their contents, lymphatic vessels.

In Haller's time, although great numbers of lymphatic absorbing vessels had been discovered throughout the body, they did not appear to him completely adequate to perform the function of absorption. They had not then been discovered in birds or fishes, and therefore that great anatomist still retained the idea that the vessels performed, in part, the important office of absorption.

The merit of first demonstrating the absorbing vessels in these tribes of animals belongs to Mr. Hewson, who asisted in the labours of the first eminent anatomical school in London, in which anatomy was most ably taught by Dr. Hunter.

Mr. John Hunter undertook, by experiments, to determine whether the veins asfisted in any degree in the office of absorption. Having conveyed milk, coloured with indigo or saffron, or scented with musk, into the small interstices of an
furnished with numerous valves, which prevent any retrograde action of the fluids, and also prevent any portion of the vessel from losing the weight of more fluid than it contains between its valves. The aborients, however, differ from the veins in these respects, inasmuch as they have a power of contraction, and are able, of themselves, to propel their contents. Whoever reflects on the phenomena of absorption, can scarcely doubt that the portion of the vessels have a contractile power, by which they can impel the fluids to various habitations, whilst they remain transformed by an entirely different one. If these vessels are observed in the dissecting-room, when turgid with the absorbed fluid, their contents will disappear in a certain time of the vessel, and again become visible; a phenomenon that cannot be explained, unless by supposing the vessel to contract at that part, and urge forwards its contents. Haller found that the thoracic duct contracted when flattened, so that there can be little doubt of these vessels being muscular throughout their whole extent. The aborients are found in considerable number beneath the skin of the extremities, and when they arrive at the groins and armpits, they pass through little holes as at the eye of small beans, which are called lymphatic glands. The aborient vessels, as they approach the gland, generally separate into several branches, which terminate in that body, and again about an equal number of aborients emerge from the gland, conjoin, and form one or more principal aborient vessels. The aborients which enter the gland are usually denominated vasa efferventia, and those which go out of it, vasa efferentia. If quicksilver be poured into the former vessels, the gland swells, and a great deal of quicksilver appears to be deposited in it; and afterwards, if the power propelling the injection be continued, it is seen coming out of the gland by the vasa efferentia. It seems therefore to follow, that the progress of the absorbed fluid is checked a little in these glands, and it is probable that some change is effected in it during its passage through them. This opinion is confirmed by observing that these glands abound with blood-vessels, which probably pour some fresh animal juices into those which are contained in the lymphatic vessels.

The lymphatic glands are found in great numbers in the groins, armpits, and by the side of the neck, apparently serving like barriers to the aborients of the head and extremities, as they approach to the large veins of the trunk. The aborients of the interfines, which contain the chyle, a scarcely animalized fluid, sometimes pass through three or four sets of glands before they arrive at the thoracic duct; hence they are called vasa lactea primi, secundi, tertii, and quarti generis. The place where the lacteals conjoin, and meet with the lymphatics from the lower parts of the body to form the thoracic duct, appears in animals like a refervoir, and has been named the receptaculum chyligh. The vessel thus formed by the junction of the lacteals, with the trunks of aborients from the lower parts of the body, having passed through the diaphragm, is there named the thoracic duct. In this situation it lies close upon the vertebrae of the back, between the vena azygos and the aorta, receiving in its passage the aborients of all parts in its vicinity. As it approaches the neck, it leaves the bone to get to the left subclavian vein, in which it terminates just at commencement. As, however, the aborients of the right side of the head, and right arm, would have to deviate considerably were they to end in this chief trunk of the aborbing system, they conjoin and form a similar vessel on the right side, which empties itself into the corresponding part of the right subclavian vein. Thus all the old materials of the body, which the aborients are continually removing, all the new matter imbibed from the surface, all the redundant lymph taken up from the interstices of the body, and all the chyle occasionally obtained from the bowels, are conveyed into the large vein near the heart. It is, in short, chiefly by this system of vessels that the blood is augmented in quantity or altered in quality; they replenish the body with nutrient, and they also occasionally tainted with infection.

**Aborients of the Veins, Distribution of the, throughout the body.**—The aborients of the foot have been injected in considerable numbers from the spaces between the toes; those of the inner side ascend over the inner ankle, and accompany the vena saphena interna. Being joined by others in this course, the trunks thus formed appear like network on the inside of the calf of the leg. These vessels continue in company with the vena saphena interna; and like it, ascend over the inside of the knee and thigh, where their numbers and size increase, and at last terminate in the inguinal glands. These glands vary considerably in number; the greater part of them is placed above the sacroiliac of the thigh, but some are found beneath it, in the hollow between the iliacus internus, triceps, and sartorius muscles. These glands which are highest and nearest to the pubes, receive also the aborients of the genitals. The aborients of the outside of the foot pass behind the outer ankle, and accompany the vena saphena externa up the back of the leg to the ham, where they terminate in the popliteal glands. They, however, communicate by some branches with the superficial aborients on the inside of the leg.

The deep-seated aborients of the leg accompanying the several arteries, which branch off from the popliteal, also arrive at, and end in the glands of the ham, which are small and few in number, seldom exceeding three. The aborients emerging from these glands are large, and accompany the femoral artery to the groin, to terminate in the inguinal glands. Other deep-seated aborients of the thigh, however, enter the pelvis at the inferior apertures of that cavity, and communicate with the vessels and glands contained in it. The large vasa efferventia of the inguinal glands pass beneath Poupart's ligament, and accompany the external iliac artery to the ilons. There is a series of glands placed in the course of the external iliac vessels, which are named the external iliac glands, with which these aborients are connected. Having arrived at the lumbar vertebrae, and being incautiously in size by the accessory aborients, which they are continually receiving, they terminate in the lumbar glands. These are much more numerous than any of the clavicles of glands hitherto mentioned, and quite cover the aorta and vena cava.

The aborients of the genitals terminate, as has been said, in the upper and innermost of the inguinal glands. Some have been injected on the sides of the penis, and others on the middle, accompanying the vena dorsalis; by their junction they form two trunks, which diverge, and proceed to either groin. The aborients of the ferotum accompany the cutaneous veins to the groin, and terminate in the inguinal glands. The tefficles abound in aborients, some of which join with those of the ferotum, and go to the inguinal glands; but the greater part, conflating of large and numerous vessels, pass up the spermatic chord, and along the external iliac vessels to terminate in the lumbar glands. The aborients of the clitoris, and external parts of the organs of generation in females form two divisions, one of which goes, as in the male, to the inguinal glands, the other vessels either pass with the round ligament of the uterus through the abdominal rings, and along the psoas muscle to the lumbar glands, or entering the pelvis at the inferior aperture, they join the aborients of the uterus. The aborients of the hips
hips and mates also pursue a twofold course; some bend round the trochanter, and go to the inguinal glands, whilst the greater number enter the pelvis with the glutaneous and sciatic arteries at the sacro-femoral foramina, and go to the internal iliac plexus of glands. Thus we have traced the absorptions of the lower extremities, and of the parts of generation, and find them either entering the abdomen, and running along the lower part of that cavity to the loins, or ascending through the inferior apertures of the pelvis, and joining the absorptions of that cavity, which we next proceed to describe.

In the pelvis there is a numerous plexus of glands, situated in the course of the internal iliac vessels, and continued toward the obturator foramen; there are also many absorptions of the bladder, after passing through small glands, placed by the side of that viscus, proceed to the internal iliac plexus. The absorptions of the rectum proceeding through the sacral glands pass on to those of the loins. The absorptions of the uterus form two sets, according with the blood-vessels in this respect; those which accompany the uterine vessels pass through glands by the side of the vagina, and proceed to the internal iliac plexus. Those which accompany the peritoneal vessels terminate, as in the male, in the lumbar absorptions.

The absorptions of the kidneys pursue the same course as the renal blood-vessels, and terminate in the lumbar glands. The absorptions of the intestines, commonly called the lacteals, are extremely numerous on account of the function which they have to perform, and abound more in the jejunum than elsewhere, as the chyle is chiefly absorbed from that intestine. The course of these vessels is through the mesenteries, where they communicate with glands, the number of which is stated to be between 100 and 150.

The lacteals have been traced through three or four series of these glands, and have been denominated vasa lacteae primi, secundi, tertii, et quarti generis. The lacteals form one or more large trunks as they approach the superior mesenteric artery, which join the thoracic duct. The absorptions of the large intestines pass through glands situated near them, which are very few, and not numerous. Those vessels which arise from the ascending and transverse arch of the colon terminate in the lacteals near the root of the mesentery. Those absorptions which arise from the descending and sigmoid flexure of the colon proceed to the lumbar glands and thoracic duct. Having thus described the principal absorptions that contribute to the formation of the thoracic duct, that vessel may in the next place be attended to. Large trunks of absorptions may be traced in the course of the iliac vessels, converging to form this duct; to these are joined the large trunks of the lacteals, and they unite low down upon the loins. In animals, and particularly in dogs, they terminate in a dilated pyriform cell, which is called receptaculum chyli. This appearance, though sometimes observed, is more frequently wanting in the human subject. At the first vertebra of the loins the thoracic duct gets above the diaphragm, and lies between the vein azygos and aorta on the right side of the bodies of the vertebrae; it is sometimes double, and then the second branch lies beneath the aorta on the left side; at all times large lymphatics are found also in this situation.

The dimensions of the thoracic duct gradually lessen till it has reached the middle of the back, and then again enlarge. At about the 8th dorsal vertebra it generally divides, and afterwards reunites. Having got above the arch of the aorta, it leaves the spine, ascending and inclining to the left side to reach the subclavian vein, in which it is to terminate. It passes beyond the vein and main branches, and empties itself into the venous system at the angle made by the junction of the internal jugular and axillary vein, as they unite to form the left subclavian vein. At the termination of the thoracic duct we find valves, which prevent the blood contained in the veins from flowing into that vessel.

During this course, the thoracic duct receives the absorptions from various parts of the body, of which we now proceed to give some account. It may be proper to mention that there is a similar duct on the right side of the body, generally less than half an inch in length, which terminates in the corresponding angle, made by the junction of the right internal jugular and axillary veins. This duct is formed by the concourse of the absorptions of the right upper, the right side of the head, and those accompanying the right internal mammary vessels.

The absorptions of the omentum pass through very fine glands, situated near the great arch of the aorta, and there join with those belonging to that viscus. The absorptions of the stomach accompany its arteries; those corresponding to the left gastric join those of the spleen and pancreas, and terminate in glands, extending themselves along the pancreas and splenic vessels. Those which are found in company with the right gastric artery, pass beneath the duodenum, and terminate in the same glands with the deep-seated absorptions of the liver, to which they are connected. Those which accompany the coronary artery on the lesser curvature of the stomach, pass through glands situated about that part; they then in general descend to the glands beneath the duodenum, and terminate in the thoracic duct; others, however, may be traced through the cardia to the thoracic duct. The absorptions of the spleen and pancreas, when they arise from those vasa, pass through glands extending along the splenic vessels, and are afterwards connected to the thoracic duct. The absorptions of the liver, which are extremely large and numerous, proceed from its convex surface through the right and left, and suprarenal ligaments of that viscus; some of their branches descend upon the diaphragm, and terminate in the thoracic duct; others accompany the internal mammary vessels on the inside of the sternum, and those of the right side end in the right trunk of the absorptions. Some of the absorptions from the interior part of the liver, escape from its posterior edge, and join those superficial absorptions. The deep-seated absorbing vessels of the liver rarely in its substance like the vena portae; they come out where that vessel enters the gland, and being joined by the superficial absorptions of the concave surface of the liver, they pass through numerous glands situated in the capsula Glisonee; and afterwards join the thoracic duct. The absorptions of the diaphragm are numerous, and join with, and augment those large trunks, which arise from the liver and penetrate that membrane. Both these sets of vessels are connected with glands, situated towards the front of the thoracic surface of the diaphragm, on each side of the pericardium. The absorptions of the heart are found in company with its nutrient vessels; the trunk of absorptions belonging to the right coronary artery passes by the side of the aorta to a gland near the origin of the right carotid, and terminates in the right trunk of the absorbing system. The absorptions accompanying the left coronary artery, which are much larger than the former, proceed with the pulmonary artery to glands near the trachea, are there conjoined with the pulmonary absorptions, and empty themselves into the thoracic duct.
the thoracic duct near its termination. The absorbents of the heart pass through the cardiac glands, which are situated about the arch of the aorta.

The absorbents of the lungs may be distinguished into the superficial and deeper situated. Those on the surface are distributed in the areole, surrounding the small tubules of those organs, and appear like the threes of network. The deeper situated absorbents which communicate with the others, emerge where the air-vessels enter the lungs, and both classes terminate in the bronchial glands, which are numerous, and surrounding the bronchial. Those glands are also connected with those belonging to the heart, so that both sets of glands frequently participate in the same disease. Three or four large trunks of pulmonary absorbents proceed more immediately, or more remotely, to pour their contents into the thoracic duct; the upper ones do not reach that vessel till it approaches its place of infection in the venous system.

Numerous absorbents have been seen upon the cæphagus, and there are many glands placed along the course of that tube. The absorbents of the cæphagus conjoin with those of the heart and lungs. Absorbents have been injected in company with the intercostal blood-vessels, which pass through two small glands, situated near the head of each rib, and then enter the thoracic duct. The superficial absorbents of the upper extremity accompany the superficial veins, those from the palm and outside of the hand, near the little finger, run up with the ulnar veins over the internal condyle, and then accompany the basilic vein to the axilla, when they enter numerous glands situated in that part. Those absorbents, however, previously are connected with several glands, which are situated in the course of the basilic vein, one of which is found as low as the internal condyle of the os brachii. The absorbents of the thumb, and the outside of the hand in its vicinity accompany the radial veins to the elbow, and then ascend on the outside of the biceps muscle with the cephalic vein. Arriving at the deltoid muscle they bend along its inner edge, and pass between it and the pectoral muscle to glands situated beneath the clavicle. Other cutaneous absorbents have been injected from the palm of the hand, accompanying the median veins in the forearm between these two ducts, which afterwards terminate in thosé, which accompany the vena basilica. The deep-seated absorbents of the arm are found by the sides of the large arteries, and go to the glands of the axilla. The absorbents of the shoulder also terminate in the same glands. The axillary glands, and those beneath the clavicle are connected together, and their vast expanse conjoining form a large trunk, which terminates in the thoracic duct on the left side, and is one of the principal vessels forming the corresponding trunk of absorbents on the right side.

Absorbents have been injected on the outside of the head in company with all the principal arteries: for instance, the temporal, occipital, external, and internal maxillary arteries; those from the temple pass through small glands found on the parotid gland as high as the zygoma: those from the face in glands, situated in the cheeks and outside of the jaw: those from the occiput in glands, situated behind the masticoid process. They afterwards converge, and with the deeper-seated absorbents terminate in the most numerous cluster of glands found in any part of the body, excepting only those of the meataltery. They have been named glandulae constantanæ, and extend beneath the jaw, over the side of the neck, where the external jugular veins are found, and all along the internal jugular to its termination. No absorbents can with certainty be said to have been injected in the brain. The absorbents of each side of the neck having by conjunction formed a common and large trunk, it terminates on the left side in the thoracic duct near its insertion, and on the right it contributes to form the corresponding trunk. The absorbents of the thyroid gland form two vessels of considerable size, which end in these two ducts near their termination. Some of the absorbents of the bréat, which are very numerous in females, proceed to the axillary glands, being previously connected with some small glands, situated midway between the breast and axilla; others pass over the pectoral muscle to the glands, beneath the clavicle, and others from the back part of the breast penetrate the intercostal muscles, and join the absorbents and glands, which accompany the internal mammary blood-veins.

Naturalists, as Malpighi, Leeuwenhoek, De la Hire, &c. speak of similar absorbents in plants; the fibrous or hairy roots of which are considered as a kind of vasa absorbentia, which attract and imbibe the nutritious juices from the earth and air. From the sap-veissels they pass into the whole cellular tissue, composed of vessels and closely interwoven with the whole vascular part of the plant. Thence they enter the vasa propria and glands, which contain and prepare the fluids and secretions peculiar to the species. See Plants and Vegetation.

Absorbents, Diseases of the, in Surgery. When we consider how recently the structure and use of the absorbent vessels have been explained, it is not surprising that practitioners are too neglectful of this branch of pathology. Until these last five years, we have not met with one publication on the diseases of the absorbent system; and even to the present day we do not profess a single work upon this subject in the English language. A few scattered hints, indeed, are contained in the writings of several authors; but it still remains a deliquet, to point out—What are the peculiar morbid affections of the lymphatic glands and vessels, and what are their appropriate remedies? To solve this enquirer in a satisfactory manner, would occupy an entire volume. We can, therefore, only throw out a few casual hints, and recommend the further prosecution of the subject among medical men.

1. Of morbidous fluids contained in the absorbent system.

We know, from the experiments of physiologists, and especially of Mr. Abernethy, that the absorbents which open on the surface of our bodies, imbibe both aqueous and gaseous matters derived from the atmosphere, or from substances lying in contact with the skin. It is debatable to have the precise nature of these matters ascertained in different persons, under the various circumstances of health and disea; and to determine the means which are advisable, in order to regulate their quantities or qualities. If our health may be affected by the absorption which goes on upon the external surface of the skin, there is equal reason to believe we are sometimes influenced by the nature of the vapours that must be constantly issued from the pores, reservoirs, or interstices of the body. When the synovia, the bile, the semen, and other secreted fluids become inflamed, this change arises from the more watery parts having been absorbed and carried into the sanguineous system by the lymphatic vessels. When serum, pus, or blood has been, effused among the cellular membrane, its disappearance is entirely owing to the activity of the absorbents. In a drop or an empyema, the same agents are occasionally set to work, and will effect a removal of the disease. Other examples might be adduced to illustrate the different ways in which the absorbent vessels may be irritated and undergo a morbid change from the quality of their contents, not
to mention the noxious vapours applied to them by means of contagious disorders.

11. Of irregular action in the absorbent vessels.

The irritability or contractile power of the absorbents may be preternaturally weakened; and in that case, probably, there will be an accumulation of the secreted fluids in one or more of the different natural cavities or interstices of the body; for, unless the action of the absorbents keep pace with that of the exhalant or secreting arteries, the natural equilibrium must inevitably be destroyed. Thus it happens in dropsies; either the arteries deposit a larger quantity of serum than can be carried off by the natural power of the absorbents; or, the latter are defective in their action, and cannot take up their usual proportion of fluid. The different causes and remedies of diminished or increased action in this system of vessels is, therefore, an important object of enquiry.

111. acuaj's changes in the structure of absorbents.

Anatomists have taught us to look for various alterations in the structure of absorbent vessels and glands, under particular circumstances of disease. The diameter of these vascular bodies is often entirely obliterated by external compression or other causes. They may be ruptured, wounded, lacerated, or eroded. They may be thickened in their coats, or rendered unfit for use by excessive inflammation and suppuration.

It would be entering into a very wide field of enquiry, to consider what changes the absorbent glands and lymphatics undergo in consequence of the absorption of morbid poisons; for example, in cancer, in syphilis, in the yaws, in the various morbid, morbid, and vaccine diseases, &c. &c. But this subject, we particularly commend the perusal of professor Soemmerring's Dissertations, De morbis vasorum absorbentium corporis humani, 8vo, 1795; Dr. Bailer's Morbid Anatomy, 2d edition; Macquain's Splendid work, De Venae Lymphatici; Mr. Cruickshank's book on the Anatomy of the absorbing vessels, 2d edition, 4to; Adams on Morbid Poisons; and the concluding part of Dr. Darwin's Zoornonos, vol. i. 3d edition, 8vo.

Connected with this subject, it may also be worth while to peruse a curious original piece, intitled, an Essay on external Re- mices, wherein it is considered whether all the curable distempers incident to human bodies, may not be cured by outward means. By P. Kennedy, Chir. Med. 8vo. London. 1715. Respecting the latter work, the author says, "there has never, as yet, any thing been attempted of this kind." Introd. p. 5.

Absorbents, or Absorbent Earts, in Chemistry, are thote earthy substances which are capable of imbibing by capillary attraction a large proportion of water: such are magnesia, lime, and clay. It is, however, only when these bodies are dry and porous, that they exhibit this property; for certain gins, which are pure argil, and calcareous, snap, which, chemically speaking, is the same with chalk, are not in the least degree absorbent. Hence appears the impropriety of this term in chemical nomenclature. Indeed it is at present almost discarded.

Absorbents, in the Materia Medica, comprehend those medicinal substances, which, taken inwardly, or applied externally, are adapted to dry up or absorb redundant or acid humours. They are sometimes called driers and sweeteners, and by the Latin writers the word is synonymous with imbibentia and saturnia. The term has been occasionally confounded with alkali, because alkalis have the effect of absorbents with respect to acids. It is now almost restricted to certain earths, which are distinguishable from others by their solubility in acids, and which are fitted to imbibe acids, and at the same time to destroy their acid quality. In reference to this property, some have referred them to the class of Antacids. Of the absorbents we may reckon the mineral calcareous earths, aschans; the animal calcareous earths, as crab-claws, oyster-shells, egg-shells, pearl, coral, and coralline; and animal earths, not calcareous, as crab-eyes and burnt hartshorn. The obvious and immediate virtue of these, that is, to absorb acid humours in the first passages, and thus to relieve the cardia and other complaints occasioned by them; and they possess different properties, and produce different effects, according to the materials which they absorb, and by which they are diffused. The relief they give is often merely temporary, as they serve to absorb the acid actually generated, without correcting the indisposition which tends to produce it. In some cases they are injurious, for if there be no acid humours in the stomach and intestines, these earthy bodies not being soluble by any other kind of fluid, concrete with the vitreous contents of the stomach, and form with them indigestible mafyes, which may be very hurtful. Hence have proceeded indigestion, loss of appetite, nausea, vomiting, obstructions of the bowels, and other disorders. Sometimes they have formed a kind of crust on the stomach and intestines, which has prevented the separation of the gastric liquor, and obstructed the passage of the chyle through the orifices of the lacteal vessels into the masts of blood. The taking of an immoderate quantity of crab-eyes and other absorbents for the heart-burn, has sometimes been attended with fatal consequences. See Phil. Trans. No. 459. Sect. 2.

It is observed that absorbents are of more general use in infancy than in adult age. Young children are more subject to acidities than adult persons, because their food is chiefly of the vegetable accecent kind, and produces acidities, which are attended with alarming symptoms, and productive of various disorders. When infants, or persons of mature age, but of a feeble constitution, indicate complaints of this kind by four cutations, paleness of the face, and in the case of children by the four fum and green colour of the alvine fucses, absorbent medicines may be very properly administered. The other cordial, aleipharmia, antiflery, and similar virtues ascribed to these medicines, seem to be founded on an erroneous theory, which attributes the acute difeases of adults to a morbid acid; difeases which, instead of being produced, are more successfully subdued by acids. The use of absorbents, says Dr. Lewis (Mat. Med. p. 643), in different kinds of fevers, is nevertheless still continued, and sometimes perhaps with advantage; for though the earths of themselves are apparently rather injurious than beneficial, yet as acids are often given freely at the same time, the solution of the earth in the acid may prove a medicine more serviceable in particular cases than the acid unadulterated. Different absorbents have been selected and recommended for particular purposes. If it be the intention to absorb, conferinge and lighter, then at the same time, chalk, coal, oyster or egg shells, are esteemed the most efficacious absorbents; if for restraining a febile flux, some prefer the cuttle-bone; for provoking urine, crab-eyes; for promoting perspiration, burnt hartthorn; and for dissolvin g coagulated blood, crab-eyes dissolved in vinegar. But all these differences have not yet been sufficiently determined by experience, because the earths have rarely been given in a dissolved or soluble state. It is most probable, says Dr. Lewis, that they all act, when dissolved, as mild cooling re- stringents; for when they are given in substance, as absorbents, in cases of acidities, they all tend to restrain fluxes of the belly, or to bring on colicknays; an effect which should be regarded in the use of them. It is, therefore, a necessary caution to drink diluting liquors with them; and also
ABS

Experiments have been made for determining the comparative strength of different absorbents, or the quantities of acid they are capable of satiating. Langius (Op. Med. L.ips., p. 453) reports, that 10 grains of crabs-claws destroyed the acidity of 40 drops of spirit of salt; that egg-shells, crab-eyes, and mother-of-pearl, taken in the same quantity, satu rated 50 drops each; red coral, white coral, and fixed alkaline salt, 60 drops each; volatile alkaline salt and pearl, 80 drops each; chalk, 100 drops; oyster-shells, 120; and some lime-ones, 160. These experiments cannot be much relied on, as earths have different habits to different acids. Accordingly Homberg concludes from his experiments, (Mem. Acad. Royal. des 5. de Paris pour l'an 1703) that oyster-shells require for their solution more of the marine acid than coral does; whereas the caele is the reverse with the nitrous acid. But neither of these acids is that which absorbents are designed for satiating in the human stomach. The vegetable acids, and the acid of milk, are most analogous to those which are generated in the animal body; and on trying these with the several substances above enumerated, the differences in their absorbent powers appeared not to be very great. Lewis Mat. Med. 445.

ABSORBING, in the art of sucking up, or imbibing another body. Sir Isaac Newton shews that black bodies absorb all the rays they receive, and that those rays of light which impinge against the solid particles of bodies are absorbed and lost; but it appears from some later experiments and observations of M. Daubrée, that this effect is to be attributed, not to the impact of light on the solid parts of bodies, but to the action of some power diffused over their surfaces. He found by repeated trials on the reflection of light, from the surface of water, and of different pieces of crystal, that a considerable quantity of light, when the angles of incidence were small, was actually extinguished. This effect, he observed, was diminished by increasing the incidence; so that at an inclination to crystal of above 45° or 47°, a very small part of the rays was absorbed; though some few were lost, when they fell perpendicularly on the reflecting surface. See his Traite d'Optique. Paris 1760.

ABSORPTION, in the Animal Economy, is the function performed by the Absorbent vessels above described. The only opportunity which anatomists have hitherto met with of observing the orifices of these vessels, is upon the villous coat of the intestines. The accounts which have been given of them in that situation are so various, and delivered with such little confidence as not to warrant the insertion of any description. The internal coat of the intestine is seen streaked with chyle coagulated in the mouths of these vessels, in persons who have died when the absorption of that fluid was carrying on. The evident reluctance with which the absorbents admit noxious matter has led to the general belief, that their mouths are irritable, and have the power of denying admission to stimulating substances. Various theories have been formed to account for the admission of matter into the orifices of the absorbing vessels; but whichever theory be adopted, it is previously necessary to admit a corresponding aptitude in the vessel to receive, and in the matter to be received. This being granted, some physiologists have imagined that the absorbent attracted matter into its mouth, in the same manner that capillary tubes imbibe fluids. A little reflection is sufficient to shew that the absorbing vessels are not circumstanced like capillary tubes (the sides of which are rigid) immerged in a fluid. Besides, were such attraction the cause of absorption, that process should be carried on with regularity. On the contrary, absorption is occasionally very deficient when an abundance of fluids, as in edema, is presented to the mouths of the vessels. This fact may indeed be explained by supposing the orifices of the vessels to be in a contracted state, but the contrary problem is more difficult of solution. In the course of one night a pint of pus may be imbied from the cavity of an abbeeds, and sometimes absorption is so excessive that the very substance of the body is in parts removed, and chafins in consequence created.

Other physiologists have endeavoured to discover some propelling power which should promote the mattersubject to absorption into the mouths of these vessels. The presure of the atmosphere on the surface of the body has been considered adequate to this effect, and the deposition of new matter by the fecerning artery has been assigned as the cause of the propulsion of the old particles into the orifice of the absorbent. Were this theory correct, secretion and absorption should more exactly correspond than they are known to do; like the former theory, it appears inadequate to account for the facts above stated.

Mr. John Hunter who contemplated the facts of natural and morbid absorption in animal bodies with the most steady and attentive, acknowledged that he was unable to account for the effects produced, unless by attributing to the mouths of these vessels powers similar to those which a capillary exerts when feeding upon a leaf. This idea, however, has generally been considered as too wild and chimerical.

Doctor Fullarton, in his ingenious Thesis on absorption, published at Ghent in 1805, attributes to the absorbing orifices a power of suction, which opinion he supports not only by arguments but by analogies. The umbilical tube of the embryos of the fepia and polypi is said, on the authority

v. art. 29.
tority of Albinus, to absorb by suction. The pro-
bolics of the papilionaceous flies acts in the same man-
ner. And the absorbents of the echinus marinus have
this power in so great a degree as to enable the animal
firmly to attach itself to any substance which it may hap-
pen to touch. It may be right to remind the reader that
the difficulty in accounting for the function of these vessels
exists only at its commencement, for when the imbibed mat-
ter has gone beyond the first valve it must proceed, and it
will be powerfully carried forward by the contractile force of
the vessel, and by every occasional preffure which is applied
to it. Some physiologists believe that the absorbents can-
take up any matter that is not fluid. If this opinion
were true, the solids of our bodies must be converted into
fluids before they could become subjects for absorption. A
small addition of phosphoric acid might indeed render the
earth of bones soluble, and it is in this state, that it is car-
rried out of the circulating fluids by the urinary secretion.
No liquid has been conceived capable of diffusing such solids
as compose the muscular fibres, but one that resembles in
qualities the galingales. Dr. Stringham, in his Thesis
on the absorbing vessels published in Edinburgh, and Mr. Smith in
London, imagined they had discovered that such a fluid capable
of diffusing flesh, could be secreted in various parts of
the body. See Duncan’s Med. Com. vol. x. p. 354.
Subsequent experiments have, however, been followed by con-
trary conceptions. See Dr. Fullarton’s Thesis on absorption,
published at Glasgaw, A.D. 1800. Indeed it is un-
like the simplicity observable in other parts of the animal
oeconomy, should such a double secretion take place; first,
the secretion of solid materials to compose the structure of
the body, and then the secretion of a fluid to diffuse them.
It seems best in such difficult investigations to note facts
rather than to form theories, and whoever contemplates the
things done in the animal body will be astonished at the
powers of the vessels by whose agency they must be effected.
As an instance, the following may be mentioned. A whole
bone may perish, it may be encased by a new one; and by
the vascular lining of the new bone, the original dead bone
may be altogether removed.

Absorption, in Chemistry. It is a well known chemical
fact, in most cases of combination of gaseous substances,
either with other gases or with liquids or solids, that a very
considerable diminution of volume is experienced. This
effect is called absorption, to distinguish it from the de-
crease of bulk occasioned by condensation. The condensa-
tion of a gas, whether by mechanical preffure, or by lowering
its temperature, merely increases its specific gravity, without destroying that state of elastic fluidity which is
essential to its existence as a gas. On the contrary, the ab-
sorption of a gas implies such an intimate union with the
absorbent as wholly destroys its gaseous state of exis-
tence, and reduces it to a liquid or a solid. Thus carbonic acid
and ammoniacal gasses, if included in separate vessels may be
condensed, by mechanical means, till they are of much
greater specific gravity than ordinary, but yet retaining all
the physical properties of air: as soon however as these
gasses are brought into contact with each other, a great
absorption takes place, and a solid is produced containing
all their gravitating matter, but wholly deprived of the
essential character of a gas.

In pneumatic chemistry, or that branch of the science
which treats of the aëroform substances, the apparatus for
containing the gasses consists of jars or other glass vessels
inverted in water or quicksilver; now on account of the great
difference in specific gravity between these fluids, whenever
a jar partly filled with air, and the rest of its capacity with
quicksilver, is transferred from a basin of quicksilver to one
of water, the metal descends, and is replaced by a column
of water, at the same time that an apparent absorption takes
place: this fallacy has no doubt often misled the results of
experiments, and therefore deserves to be particularly con-
tended against. For example, if an inverted jar be placed
high, containing eight inches of air, and fix of mercury, (the
barometer standing at 30°,) the pressure of the atmosphere
on the confined air is = 30 inches of mercury - 6 inches =
24 inches; but if the jar, with its contents, be removed into
a basin of water, the quicksilver sinks down and is replaced
by water, in consequence of which the atmospheric pre-
sure on the confined air becomes = 30 inches of mercury
- 6 inches of water, or (the specific gravity of mercury to
water being 14.1 = 29.572 inches. The difference here amounts to full one fifth of the whole atmospheric pre-
sure, and therefore the imbibed air occupies less space than
before, although no real absorption has taken place. See
Pneumatic Chemistry.

Absorption of the earth, in Natural History, a term
used by Kircher and others, for the sinking in of large tracts
of land, by means of subterranean concretions, and many
other accidents.

Pliny (Hist. Nat. tom. i. p. 115. Ed. Hard.) tells us,
that in his time the mountain Cybotus, with the town of
Curites, which stood on its side, were wholly absorbed
into the earth, so that not the least trace of either re-
main’d: and he records the like fate of the city of Tantalis
in Magnesia, and after it of the mountain Sybilus, both
thus absorbed by a violent opening of the earth. Bolsius
and Gaufus, towns once famous in Phocinia, are recorded
to have shared the same fate: and the vault promontory, called
Phegium, in Ethiopia, after a violent earthquake in the
night-time, was not to be seen in the morning, the whole
having disappeared, and the earth having closed over it.
These and many other histories, attested by authors of
great credit among the ancients, abundantly prove the
fact in the earlier ages; and there have not been wanting
too many instances of more modern date. Kircher’s Mund.
Subter. p. 77.

The mountain Pius, in one of the Molucca islands, was so
lofty, that it appeared at great distances as an immense
column reared erect in the air, and served as a landmark to
sailors; an earthquake in this island destroyed it; at one
instant the whole mountain was absorbed into the bowels
of the earth, and no mark of its place remained, but a vault
of water exactly answering to the shape of the base of
the mountain. A like accident, but of a more terrible
kind, happened in China, in the year 1556, when a whole
province of the mountainous parts of that kingdom was in
one moment absorbed into the earth, and all the towns buried,
the whole number of the inhabitants, with it, and an
immense lake of water remaining in its place to this time.
Of much later date is the destruction of a city in the
 confines of Switzerland: but this, though generally said to
have been swallowed up into the earth, was not properly an ab-
sorption, for the whole city was buried by the fall of a
mountain upon it.

The burning mountains, Vesuvius and Storngylus,
both once very high, have in length of time left hold of their
height, the upper part having been undermined by the
burning, and having fallen into, and been swallowed by the
under part and the sea. And in the year 1647, during the
terrible earthquake in the kingdom of Chili, several whole
mountains in the Andes discovered, and were one after
another wholly swallowed in the earth.

These, and a thousand other accidents of the like kind,
prove the truth of abstractions in general; some of them
leaving heed ground in the place of the things abstracted, some
immediate chuses and cracks, and some lakes of fresh or salt
water; and it may be that many immense lakes were formed
in ages, of which we have no histories, by the like abstractions.

Pliny gives in many accounts of the心里ing of places thus
abstracted, but later observations do not give an equal credit
to those parts of this history.

There are instances, however, of islands being produced,
though we cannot affirm them to have appeared in the place
of any which have been abstracted.

In the year 1638, an island was raised near St. Michael's
in the Atlantic ocean, by subterranean fires, which threw
flames and other subterranean productions, in such quantities
that they formed an island of five miles in length.
The mountain raised in one night, in the sea near Pizzoli,
is another instance of this sudden production of these
mountains: this appeared after one night's violent subterranean
conflict, and still keeps its place, and is known by the name
of Mons Sancius. See Iceland.

ABSTEINEN, in Geography, a district near the river
Memel, in Little Lithuania. It is a mountainous and pleasant
country, and on account of its fertility in corn and pasture,
called the larder of Lithuania. It abounds with
flocks of sheep, various kinds of grain, and excellent horses.

ABSTEMII, in Ecclesiastical History, a name given to
persons who could not partake of the cup of the Eucharist,
or account of their natural aversion from wine.

ABSTEMIOUS, is properly understood of a person who
refrains absolutely from all use of wine.

It is compounded of ab, from, and timetum, wine.

The history of Mr. Wood, in the Medici. Trans. vol. ii.
p. 261. art. 18, is a very remarkable exemplification of the
very beneficial alterations which may be effected on the human
body, by a strict course of abstinence.

The Roman ladies, in the first ages of the republic, were
all enjoined to be abstemious; and that it might appear,
by their breath, whether or not they kept up to the injunc-
tion, it was one of the laws of the Roman civility, that
they should kiss their friends and relations whenever they
accosted them.

ABSTEMIUS, Laurens, in Biography, a native of
Macerata, in Italy, who made a very considerable progress in
police literature, to which he devoted himself early in life.
He taught the belles lettres at Urbino, where he was librarian
to Duke Guido Ubaldus, under the pontificate of Alex-
ander VI. His works are Notes on different passages of an-
cient authors: Hecatomthium, or a Collection of 100
Fables, which have been often printed with those of Elop,
Phrased, Gabrias, Asienus, &c. and a preface to the edition
of Aurelius Victor, published at Venice, in 1505.

ABSTENTIUS, among Civilians, is understood of an
heir with-held by his tutor from taking on him an inheritance.
Among Ecclesiastical Writers, the word is also used for a per-
son excommunicated.

ABSTERRENTS, or Abstresive medicines, more
usually called among physicians detergents, are medicines
which not only wash off adhering substances, as ablutions,
but are supposed to poiffe a power of revolving and loosening
their cohesion. But the terms are too general, and are
often erroneously applied upon a false supposition, that they
have a power of revolving viscous substances, which water
simply, as an ablaut, cannot effect.

ABSTINENCE, derived from abstinere, formed of ab,
from, and tenere, to hold, in a general sense, the act or habit
of refraining from something to which we have a propensity,
or in which we find pleasure.

The Jews were obliged to practice various kinds of ab-
stinence by their law. The Pythagoreans were accustomed,
upon being initiated into the fraternity of the fcelat com-
panions and friends of Pythagoras, to abstain from animal
food, except the remains of the sacrifices, and to drink no-
thing but water, unless in the evening, when they were
allowed a small portion of wine. Some of the primitive
christians also abstained from the use of particular kinds of
food, whilst others treated their abstinence with contempt.
See Rom. xiv. The council of Jerusalem, which was held
by the apostles, enjoined the christian converts to abstain
from meats unslanged, blood, fornication, and idolatry.
Acts xv. 20. The abstinence, called ritual, which consisted
in abstaining from particular meats at certain feasons, was
introduced by the Romish church, preferred by rules, de-
nominated Rota tions, and grossly abused. The church
of England also recommends certain days of falling and ab-
stinence.—Abstinence from flesh has been enjoined by statute
even since the Reformation, particularly on Fridays and Sa-
aturdays, and on Vigils, and all commonly called fish-days,
2 and 3 Ed. VI. c. 19.—The like injunctions were re-
newed under queen Elizabeth, but at the same time it was
declared, that this was done, not out of motives of religion,
as if there were any difference in meats, but in favour of the
consumption of sea-fish, and to multiply the number of fishermen
and mariners, as well as spare the flock of sheep.
5 Ediz. 15. The great fall, says St. Augustin, is to ab-
stinence from sin. See Fast.

The ancient Athlete lived in a perpetual abstinence from
all kinds of sensible pleasures, to render their bodies more re-
built and hardy.

Abstinence is more particularly used for a spare diet,
or a flender paffimious use of food.

The Physicains relace wonders of the effects of abstinence
in the cure of many disorders, and in protracting the term
of life. The noble Venetian Cornaro, after all imaginable
means had proved vain, so that his life was despaired of at
forty, recovered, and lived to near a hundred, by mere dint
of abstinence, as he himself gives the account.

Many of the christians of the ealt, who retired from per-
secution into the deserts of Arabia and Egypt, lived in
health and cheerfulness to a very advanced age on very
little food. According to Caftian, the common allowance
for twenty-four hours was twelve ounces of bread, and wa-
ter; and yet with this abstinence St. Anthony lived 105
years, James the Hermit 124, Aricius, tutor of the em-
peror Arcadius, 130; Epiphanius 115; Simeon the Sy-
lite 112; and Romauld 120. Buchanan informs us, that one
Laurence attained to 140, by temperance and labour; and
Spotwood mentions one Kentigern, called St. Monga or
Mungo, who lived to 185 by the same means. See Lon-
evity.

Most of the chronic diseases, insirmities of old age, and
the short lives of Englishmen, are owing, according to Dr.
Cheyne, to repletion; and may be either cured, prevented,
or remedied, by abstinence.

Abstinence, however, should be maintained with diffec-
tion, and with a due regard to age, sex, climate, exer-
cise, disposition to corpulence in the individual, and various
either circumstances; without a reference to which, it may
be pursued to a veryhartful extreme. It is certain, that
many persons have irreparably injured their constitutions by
excessive parimony; and those who, either by design or ac-
cident, have failed long, seldom enjoy good health after-
wards.

Among the brute creation, we see extraordinary infirmities
of long abstinence.—It is the natural course of divers species
te pafs four, five, or six months, every year, without either eating or drinking: accordingly the tortoise, dormouse, serpent; &c. are observed regularly to retire, at certain seasons, to their respective cells, and hide themselves; some get into the caverns of rocks, or ruins; others dig holes underground; others get into the woods, and lay themselves up in the clefts of trees; others bury themselves under water, &c. See SLEEPERS.

The serpent kind bear abstinence to a very great degree. We have seen rattle-snakes that have subsisted many months without any food, yet still retain their vigour and fierceness. Dr. Shaw (Trav. p. 411.) speaks of a couple of crocodiles (a sort of Egyptian serpents), which had been kept five years in a large crystal vessel, without any sort of food, unless a small quantity of sand, wherein they coiled themselves up in the bottom of the vessel, may be reckoned as such; yet, when he faw them, they had juf call their skins, and were as bril and lively as if just taken.

Indeed, several species of birds, the whole tribe almoft of insects, and many among the other tribes, are able to subsist all through the winter, not only without food, but many of them in a state of apparent insensibility and torpor.—This furnishes an admirable instance of the wisdom of the Creator: the proper food of these creatures, especially the insect tribe, being then wanting, there is provision for them to live without it. When the fields are devoured of their flowery furniture, and the trees and plants are stripped of their fruits, what would become of fuch animals as are subsisted only by the produce of the spring and summer, and of others which are incapable of bearing severe cold? To prevent the total destruction and extirpation of many species of animals, the Author of nature has provided, that creatures, bereaved by the leaf of their food, should be likewiife incommoded by the cold; that they might thus be led to fift themselves out of the way of danger; and that when arrived in a place of safety, the natural texture and viability of their blood should difpofe it, by a farther degree of cold, to flagmate in the veftels: fo that the circulation flopping, and the animal inactions being, in a great meafure, fuppresed, there is no fenfible want of conftution of parts, but they remain in a kind of drfowly neutral fate, between life and death, till the warm fun revives both them and their food togethef, by thawing the congealed juices, both of fuch animals and vegetables. The fact, however, is unquestionable; and will be more particularly confidered hereafter.

It is more than probable, that all motion of the animal juices is extinct in fies, and other ifpects, when thus asleep; becaufe, though they are cut in pieces, they do not awake, nor does any fluid ooz out of the wound, unless some extraordinary degree of warmth hath been first applied to unfid the coagulation. See HEDGE-FOX. The fleep of fuch animals is little ftrenghe than death, and their waking a reftoration.—For if life does not confift in a circulation of the blood, we do not know in what it confists.

Hence it is no wonder that tortoifes, dormice, &c. are found as fat and fleepy, after some months abstinence, as before. Sir G. Ext weighed his tortoife feveral years successively, at its going to earth in October, and coming out again, in March; and found that of four pounds four ounces, it only used to lose about one ounce. Phil. Trans. No. 194.

We have fome infinences of men who have paffed feveral weeks, and even months in abstinence without injury. The records of the Tower mention a Scotifhman, imprifoned for felony, and ftrictly watched for six weeks; during which time he did not take the leaf furfenance: on which account he obtained his pardon. There are many cafes of abstinence from morbid caufes, that are related in the different periodical Memoirs, Transactions, Ephemerides, &c.

It is to be added, that in most of the infinences of long abstinence related by naturalists, there were apparent marks of a texture of blood and humour, much like that of fummer feafts and infects; though it is no improbable opinion that the air itfelf may furnifh something for nutrition. It is certain, there are abfuflances of all kinds, animal, vegetable, &c. floating in the atmosphere; which must be continually taken in by respiration; and that an animal body may be nourifhed thereby, is evident in the infinence of vipers, which, if taken when fi&om brought forth, and kept from every thing but air, will yet grow very confiderably in a few days. So the eggs of hazards are also obferved to increafe in bulk, after they are produced, though there be nothing to turn them increafement but air alone; after the like manner as the eggs or fpawn of filies grow, and are nourifhed with the water. And hence, fome fay, it is, that cooks, turfpit dogs, &c. though they eat but little, yet are ufually fat.

Abstinence is also used sometimes to fignify a suppression. Thus in Cædins Aurelianus, abstinence fudoris, signifies a suppression of sweat. Sometimes in this author it means a comprefion: as Spiritus ob abstinenceum transabat, means the wind shut up in the interline by comprefion, thereby causing the illiac pain.

ABSTINENCES, in Ecclecafical History, a fort of people, who carried abstinence and mortification fo far, that they have been put into the catalogue of heretics; though it is not known in what their error confifted.

Some reprefent them as the fame with thofe otherwise called Continentes, and that they particularly enjoined abstinence from theufe of marriage: others fay, from feaft, and others from wine. Others will have them a branch of the Gnostics. Some make them the fame with the Hieracites; others with the Encratites. They are faid to have rifen in Spain and France towards the clofe of the third century.

ABSTOTTEN, in Geography, a small market town, belonging to the bishop of Pfaffau, in the circle above the forest of Wiener, in Austria.

ABSTRACT, Abstract, in a general fense, any thing separated from something elfe.

Abstract of a fene, in Law. See Fine.

Abstract idea, in Metaphysics, is a partial idea of a complex object, limited to one or more of the component parts or properties, laying aside or abstracting from the reft. But among thofe who adopt the fystem of Mr. Locke, an abstract idea denotes an idea formed in the mind, when we consider a thing simply in itself, without respeft to the subject wherein it reftles; or it is a simple idea detached and parted from any particular subject or complex idea, for the fake of viewing and confidering it more diftantly.

Thus, magnitude and humanity are abftract or abstract ideas, when considered in themselves, and without being attached to any particular body, or person; though they cannot have any real fulfenance without fuch subjects, nor the subjects without them.

Whitenefs is an abstract, inasmuch as it does not denote any one white object, but that colour, or idea in the general, wherever found.

Abftrant ideas are opposed to thofe which are concrete; the concrete denoting a general or abstract idea's being attached to some particular fubjeft, or considered as combined with some other ideas; as, great house, white wall. All our simple ideas, fays Mr. Locke, have abstract, as well as concrete names: as whitefefs, white; fweetness, sweet, &c. The

K
Like also holds in our ideas of modes, and relations: as

\[ f 	imes f = f; \quad g \times g = g, \quad \text{etc.} \]

But as to our ideas of substance, we have very few ab-
stract names at all. Those few that the schools have
formed, as Animaduers, Humanius, &c. bear no propor-
tion to the infinite number of names of substances; and
could never gain admittance into common use, or obtain
the licence of public approbation; which seems to intim-
ate a confusion of mankind, that they have no ideas of the
real essences of substances; since they have not names for
such ideas.

Indeed the reality and existence of all abstract ideas, and
of any such faculty in the mind as abstraction, have of late
been controverted, and actually denied by persons of very
confiderable eminence as metaphysicians and philosophers.
It will appear in what sense they use the terms abstract ideas
under the article Abstraction.

Abstract terms, are those made use of to denote ab-
stract ideas. In which sense the words sublimi, paterni-
yty, animality, fuisse, crookedness, &c. are abstract or abstrait
terms.

Abstract mathematics. See Mathematics.

Abstract numbers, are assemblages of units considered
in themselves, and not applied to denote any collections of
particular sorts of things.

Abstract, in Literature, is a compendious view, or
SUMMARY of a larger work, and is supposed to be somewhat
shorter, and more superficial than an ABRIDGEMENT.

ABSTRACTI, abstracted, in Church History, is a name
given to a sect among the Lutherans, under the lead of
Helvelius, a Prussian bishop, who affixed against Beza,
that Christ was to be adored not only in the concrete, as
the Son of God, but that his flesh in the abstract was an
object of adoration. Wigandus prevailed so far against
Helvelius as to get him deposed: afterwards the Abstracti
gained the ascendancy, and Wigandus was banished. Micropol.

ABSTRACTION, in Chemistry, properly means the
act of drawing off or separating, by means of heat, one
part of a compound from the other. If the part abstracted
is collected, the operation is synonymous with Distilla-
tion. If it is not collected, the term has the same
meaning with Evaporation. At present, however, it is almost
equally appropriated to the repeated distillation of nitrous
acid off any substance; in which case it is said to have been
abstracted with the acid.

Abstraction, in Metaphysics, an operation of the mind,
whereby we separate things naturally conjoint, or
existing together; and form, and confider, ideas of things
thus separated; or, as others define it (see Dunce's Ele-
ments of Logic, p. 51.), abstraction is that operation of the
mind, by which we separate from any of our conception,
the whole of the circumstances that render it particular, or the
representative of a single determinate object; so that, in stead
of being for an individual, it is used to denote a whole
rank or class of things. In this manner we acquire our

general ideas, that serve as standards by which we may rank
and denominate particular objects. Thus, in viewing
a figure, or circle, we leave out the consideration of every
thing that is peculiar to them, except their figure and shape.
Whenever, therefore, we meet with a figure answering to
that shape and form, which we had laid up in our under-
sanding, it is immediately refered by the mind to this
pattern, and called by its name, which by this means becomes
proper to the whole species. Thus, a square and circle
are universal terms, common to all figures of that particular
shape, and alike applicable to them wherever they exist; in
in like manner as the ideas themselves are general, and repre-
sentatives of all the kind.

The faculty of abstracting stands directly opposite to that
of compounding. By composition we consider those things
together, which in reality are not joined together in one
existence. And by abstraction we consider those things
separately and apart, which in reality do not exist apart.

Abstraction is chiefly employed in these three ways. First,
when the mind considers any one part of a thing in some re-
spect distinct from the whole; as a man's arm, without the
consideration of the rest of the body. Secondly, when we
consider the mode of any substance, omitting the substance
itself, or when we separately consider several modes which
unite in the same object. This abstraction the Cro-

marians make use of, when they consider the length of
a body separately, which they call a line; omitting the con-
sideration of its breath and depth. Thirdly, it is by ab-
straction that the mind frames general, or universal ideas:
omitting the modes and relations of the particular objects
whence they are formed. Thus, when we would under-
stand a thinking being in general, we gather from our self-
conficcion what it is to think; and omitting the considera-
tion of those things which have a peculiar relation to our
mind, or to the human mind, we conceive of a thinking be-
ing in general.

Ideas framed thus, which are what we properly call ab-
stract ideas, become general representatives of all objects of
the same kind; and their names applicable to whatever exists
conformable to such ideas. Thus, the colour that we re-
ceive from chalk, snow, milk, &c. is a representative of all
of that kind; and has a name given it, sublimi, which
signifies the same quality, wherever found or imagined. It
is this last faculty, or power of abstracting, according to
Mr. Locke, that makes the great difference between men
and brutes; even those latter must be allowed to have some
share of reason; that they really reason in some cases, seems
almost as evident as that they have sense; but it is only in
particular ideas. They are confined to those narrow bounds;
and do not seem to have any faculty of enlarging them by
c. 11. § 9. 10. 11. book iii. c. 3. § 9. Such is the doc-

cine of abstract ideas, as it has been delivered by that ex-

cellent author. From him it became, for a considerable
time, a prevailing opinion, that the mind has such a power
or faculty of framing abstract ideas or notions of things;
and on such ideas a great part of the writings of philo-

sophers is founded. These are supposed in all their sys-
tems; and they are more especially reputed the objects of logic,

d and metaphysics, and of every thing that passes
under the notion of the most abstracted and sublime learning.

However, an eminent and ingenious author, Dr. Berke-
ley, has contested the reality of any such ideas; and led
the way towards overturning the whole system, and con-
sequently towards setting philosophy on a new foundation.
See A Treatise concerning the Principles of Human Know-

edge, first printed in 1710.

The qualities or modes of things, it is on all hands
agreed, says that learned prelate, do never really exist apart,
and separated each from all others, but are confinantly mixed
and combined together, several in the same object. But,
the philosophers, the mind being able to consider
each quality singly, or abstracted from other qualities with
which it is united, does by that means frame to itself ab-

tract ideas, of a different nature and kind from the sensible
ones.

For example, when the eye perceives an object extended,
coloured, and moved, the mind resolves this compound idea
into
into its simple constituent parts; and viewing each by itself, exclusive of the rest, frames abstract ideas of extension, colour, and motion. Not that it is possible for such colour and motion to exist without extension; but only that the mind can frame to itself, by abstraction, the idea of colour exclusive of extension; and of motion, exclusive both of colour and extension.

Again, say the same philosophers, the mind having observed that in the particular extensions perceived by sense, there is something common, and alike in all; and some other things peculiar; as this, or that figure, or magnitude, which distinguishes them one from another: it can consider apart, or single out by itself, that which is common; making thereof a general abstract idea of extension, which is neither line, surface, nor solid, nor has any figure or magnitude, but is an idea entirely preformed from them all. So, likewise, by leaving out of the several colours perceived by sense, that which distinguishes them one from another, and only retaining what is common to all, it makes an idea of colour in the abstract, which is neither red, nor blue, nor white, &c.—After the same manner by considering motion abstractively, both from the body moved, and from the figure it describes, and all particular directions and velocities; an abstract idea of motion is framed, which equally corresponds to all motions whatever.

They add, that as the mind frames abstract ideas of qualities or modes, so does it by the same faculty, obtain abstract ideas of the more complex beings, which include many coexistent qualities. For example: Having observed that Peter, James, John, &c. resemble each other in shape, and other qualities; we can leave out of the complex idea we had of Peter, James, &c. that which is peculiar to each, retaining only what is common to all, and so make an abstract idea, wherein all the particulars equally partake. And thus it is we are supposed to obtain the abstract idea of man, or of humanity, or of human nature; wherein there is indeed included colour, because there is no man that has not some colour; but it is neither white, nor black, nor brown; because there is no one particular colour wherein all men partake. So likewise there is included stature, but then it is neither tall nor low, nor yet middle stature, but something abstracted from all these; and so of the rest.

Farther yet, there being a general variety of other creatures, which partake in some parts, but not all, of the complex idea of man; the mind leaving out those parts which are peculiar to man, and retaining only those which are common to all living creatures, frames the idea of animal; which abstracts not only from all particular men, but also from all birds, fishes, flies, and insects.

The constituent parts of such abstract idea of animal, are body, life, sense, and spontaneous motion. By body is meant, body without any particular shape, or figure; there being no one common to all animals; without covering, either of hair, or feathers, or scales; nor yet naked; hair, feathers, scales, and nakedness, being the distinguishing properties of particular animals, and for that reason left out of the abstract idea. Upon the same account, the spontaneous motion must be neither walking, nor flying, nor creeping; it is nevertheless a motion. But what the motion is, it is not easy to conceive. "I will not affirm," says Dr. Berkeley, "that other people have not this wonderful faculty of abstracting their ideas; but I am confident I have it not myself. I have, indeed, a faculty of imagining, or re-alfatracting to myself the ideas of things I have perceived, or of variously compounding or dividing them; I can imagine a man with two heads, or the upper parts of a man joined to the body of a horse. I can consider the hand, the eyes, the nose, each by itself, abstracted or separated from the rest of the body. But then, whatever hand or eye I imagine, it must have some particular shape and colour. So again, the idea of a man I frame to myself, and be either of a white, or a black, or a twenty, a felch ass, or a crooked, a tall, or a low, or a middle-sized man. I cannot by any effort of thought, conceive the abstract idea above described; and it is equally impossible for me to form the abstract idea of motion, distinct from that body moving, and which is neither swift nor slow, or circular nor rectilinear. And the like may be said of all other abstract general ideas whatever."

Since all things that exist are only particular, "Whence," says Mr. Locke, "is it, that we come by general words? His answer is only become general, by being made the sign of abstract and general ideas; so that the generality of abstract ideas should follow from the reality of general words. But, according to Dr. Berkeley, a word becomes general, by being made the sign not of an abstract general idea, but of several particular ones, any of which it indiscriminately signifies to the mind. For example, when I say, 'fhe horse,' that whatever has extension is divisible; the proposition is incomprehensible for extension in general; not that I must conceive any abstract general idea of extension, which is neither line, surface, nor solid, neither great nor small, &c. To make this more evident, suppose a geometer to be demonstrating a method of dividing a line into two equal parts: with this view, he draws, for instance, a black line, an inch long; and this, which in itself is a particular line, is nevertheless, with respect to its signification, general; hence it represents all lines whatever; so that what is demonstrated of this one will hold of all others. And as that particular line becomes general by being made a sign, so does the name line, and the idea of a line in the imagination, either of which, taken absolutely, is particular, by being signs become general likewise; and as the former owes its generality, not to its being the sign of an abstract or general line, but of any or all particular right lines that may possibly exist; so must the latter, both the name and the idea, derive their generality from the same cause, or the various particular lines which each of them indiscriminately denotes.

But to this reasoning it has been replied, that the universality consists in the idea; and not merely in the name as used to signify, and recall into the mind, a variety of particular things, resembling which is the immediate object of reflection; because had we no previous fixed notion what the name signifies, we could not know what particular things to apply it to, or assign any reason for applying it to one thing rather than another. All that can be pictured in the imagination, as well as all that we take notice of by our senses, is indeed particular. And whenever any general notions are present in the mind, the imagination, at the same time, is commonly engaged in representing to itself some of the particulars comprehended under them. But it would be a very strange inference from hence, that we have none but particular ideas. As well almost might we conclude, that we have no other notion of any thing than of its name, because they are so associated in our minds, that we cannot separate them; or of the sun, than as a white bright circle such as we see in the heavens, because this idea or phantasy is apt to accompany all our thoughts of it. See Dr. Price's Review of the principal Quotations and Difficulties in Morals, p. 43.

Dr. Cudworth observes, that abstract ideas are implied in the cogitative power of the mind; and he pronounces the opinion, that they are only singular ideas annexed to a com-
or in other words, names without any meaning, to be so ridiculously false, as to deserve no confutation. See External and Immutable Monarchy, book iv.

Mr. Locke, (Essay b. iv. c. 7. § 9.) speaking of the difficulty of forming abstract ideas, says: "does it not require some pains and skill to form the general idea of a triangle, which yet is none of the most abstract and complex; nor hensive; for it must neither be oblique, nor rectangular, nor neither equilateral, isosceles, nor scalene; but all, and none of these at once. In effect, it is something imperfect, that cannot exist; an idea, wherein some parts of several different and inconsistent ideas are put together." Now, let any man look into his thoughts, and try whether he has, or can attain to an idea of a triangle corresponding to this description.

Dr. Campbell, in his Philosophy of Rhetoric, vol. ii. p. 205, expresses his apprehension, that the bare mention of this hypothesis is equivalent to a confession of it, since it really confutes itself. He adopts the sentiments of Berkeley on this subject, and will allow to the mind no other power of abstraction, if the term be retained, before that, by which a particular idea is regarded, as representing a whole order. Mr. Locke, he says, has, on some occasions, evidently inclined to the same opinion: in proof of which he refers to his Essay, book iii. chap. 3. § 11.

In this section Mr. Locke maintains, that not only words but ideas are made signs; and a particular idea is made general, not by any change produced in it (for then it would no longer be the same idea), but by being set up as the representative of many particular things. Universality, he observes, as it belongs not to things, belongs not even to those words and ideas, which are all of them particular in their existence, but general in their signification. Again, the general nature of those ideas is nothing but the capacity they are put into by the understanding of signifying or representing many particulars; and, if possible, still more explicitly, the signification they have is nothing but a relation, (no alteration in their essence) that by the mind of man is added to them. "If such an extraordinary faculty," as abstraction, says Dr. Campbell, (sub supra, p. 110.) "were possible, I cannot for my part conceive what purpose it would serve. An idea hath been defined by some logicians, the form or resemblance of a thing in the mind, and the whole of its power and use in thinking is supposed to arise from an exact conformity to its archetype. What then is the use or power of that idea, to which neither is, nor can be, any archetype in nature, which is merely a creature of the brain, a monster that bears not the likeness of any thing in the universe?"

The late Lord Bolingbroke likewise controverted the existence of abstract ideas. He apprehends that the disputes about abstraction may at all be considered as verbal, and owing to the want of making a proper distinction between ideas and notions, which have been used, he says, both by Mr. Locke and his antagonist the Bishop of Cloyne, as if they were synonymous. We might avoid the confusion arising from this ambiguity, he presumes, if we conceived the former to be particular in their nature, and general only by their application; and the latter to be general in their nature, and particular only by their application. In another place he observes, that much confusion and error have arisen from the improper use of the word abstraction. There is a very practicable operation of the mind, by which we are said to abstract ideas, and by which we do, in effect, generalize them in a certain manner, and to a certain degree, by substituting one as representative of many. There is another supposing, but impracticable operation of the mind, by which some philosophers have made themselves and others believe, that they abstratct, from a multitude of particular ideas, the idea of some general nature or essence, which is all of them, and none of them; whereas, in truth, though they can define general natures or essences in very clear propositions, they cannot frame an idea of any general nature, which is not a particular idea of that nature. Bolingbroke's Works by Kidlet, vol. iii. p. 438, and vol. v. p. 17. &c.

The acute Mr. Hume has also attacked the system of abstraction. He affirms, (Essays, vol. ii. p. 165.) that it is unattainable, and even absurd, to conclude, that the ideas of primary qualities are obtained by abstraction. An extension, that is neither tangible nor visible, cannot possibly be conceived: and a tangible or visible extension, which is neither hard nor soft, black nor white, is equally beyond the reach of human conception. Let any man try to conceive a triangle in general, which is neither isosceles, nor scalene, nor has any particular length or proportion of sides, and he will soon perceive the absurdity of all the scholastic notions with regard to abstraction and general ideas. Mr. Hume has pursued Berkeley's reasoning to an extent which he himself never proposed, and represented all his arguments as merely sceptical, "because they admit of no answer, and produce no conviction."—Dr. Reid, in his valuable Essays on the Intellectual Powers of Man, (Essay v. p. 121.) has discussed the subject of abstraction, and examined the various opinions that have been formed concerning it, in a very diffuse and elaborate manner. This ingenious writer apprehends, that we cannot, with propriety, be said to have abstract and general ideas, either in the popular or philosophical sense of that word. In the former sense, an idea is a thought, or an act of the mind in thinking, or in conceiving any object; and this must be an individual act. In the latter sense, an idea is an image in the mind, or in the brain, in which Mr. Locke's system is the immediate object of thought, and in the system of Berkeley and Hume, the only object of thought: and as he believes there are no such ideas, there can be no abstract general ideas. If they existed, they could not be general, because every thing that really exists is an individual. Universals are neither acts of the mind, nor images in the mind. They cannot be the objects of imagination when the word is taken in its strict and proper sense. We cannot imagine a man, without colour, or stature, or shape. But though Dr. Reid denies the reality of abstract ideas in the sense above stated, he maintains the same doctrine by merely substituting the term conception for idea. As general words are necessary in language, there must, he says, be general conceptions, of which these are the signs; and they take this denomination, not from the act of the mind in conceiving, which is an individual act, but from the object or thing conceived, which is general. These general words express either the attributes of things, in the genera and species, into which we divide and subdivided things; and of both these we may have clear and distinct conceptions. As to the operations of the understanding, by which we form theses general conceptions, he apprehends that they are the three following, viz. 1. The analyzing or resolving a subject into its known attributes, and giving a name to each attribute, signifying that attribute, and no more. 2. The observing one or more such attributes to be common to many subjects. The first act is by philosophers called abstraction: the second may be called generalizing; but both are commonly included under the name of abstraction. We cannot generalize, he says, without some degree of abstraction; but we may abstract without generalizing. For what hinders me from attending to the whites of the paper before me, without applying that
that colour to any other object. The whiteness of this individual object is an abstract conception: though not a general one, while applied to one individual only. To this reasoning it might be replied, that it white not be separated in his conception of it from the paper, it is no longer the whiteness of that object; and he must either conceive it as abstracted from all objects, which is impossible, or as pertaining to some other object; and this neither the quality of whiteness, nor his conception of it, is abstract and general, but concrete and particular. 3. A third mental operation, by which we form abstract conceptions, is, according to Dr. Reid, the combining into one whole a certain number of those attributes, of which we have formed abstract notions, and giving a name to that combination. It is thus we form abstract notions of the genera and species of things. With regard to abstraction strictly so called, the difficulty of which was acknowledged by Mr. Locke, this author says, "I can perceive nothing in it that is difficult either to be understood or practised." "What can be more easy," as he proceeds, "than to distinguish the different attributes which we know to belong to a subject? In a man, for instance, to distinguish his size, his complexion, his age, his fortune, his birth, his profession, and twenty other things that belong to him." But in this case, it may be observed, that though we separate one or more of these attributes from the others in our conception of them, we cannot abstract them from the individual person without transferring them to some other; so that our conceptions will be still concrete and particular. Dr. Reid adds farther, that attributes which are in their nature absolutely inseparable from their subject, and from one another, may be disjoined in our conception. In a body we can distinguish its solidity from its extension, and its weight from both; and in extension we can distinguish length, breadth, and thickness; and yet none of these can be separated from the body, or from one another. But can we conceive solidity, as separated from all extension and weight? Can we conceive solidity or extension, separated from all bodies? Those who cannot do this will find and contend that there is no abstraction in strictly so called. Without pursuing this ingenious writer's reasoning any farther, or giving in detail his answers to the various objections of Berkeley and Hume, we shall close our abstract of what he says on this subject with the following general conclusions, which he has deduced from his account of abstract and general conceptions. 1. It is by abstraction, he says, that the mind is furnished with all its most simple and most distinct notions. Abstraction analyses the sempiternal objects of sense, as well as those of memory, and of consciousness. 2. Our most distinct complex notions are formed by combounding the simple notions got by abstraction. 3. Without the powers of abstraction and generalizing, it would be impossible to reduce things into any order and method, by dividing them into genera and species. 4. Without these powers there could be no definition, which can only be applied to universals, as no individual can be defined. 5. Without abstraction and general notions, there can be neither reasoning nor language. 6. As brute animals know no signs of being able to distinguish the various attributes of the same subject; of being able to classify things into genera and species; to define, to reason, or to communicate their thoughts by artificial signs, as men do: "I must think," says this author, "with Mr. Locke, that they have not the powers of abstraction and generalizing; and that, in this particular, nature has made a specific difference between them and the human species." The notion of abstraimt ideas, which, according to Dr. Berkeley, has contributed to render speculation intricate and perplexed, and to occasion innumerable errors and difficulties in almost all parts of knowledge, led men, in his opinion, not to suppose, that bodies have an existence of their own, exclusively and independently of the mind which perceives them.—Can there be a greater strain of abstraction, says he, than to distinguish the existence of sensible objects from their being perceived, so as to conceive them existing unperceived?—If there were external bodies, he says, it is impossible we should ever come to know it; and if there were not, we might have the same reason to think there were that we have now. His principal argument may be reduced to the following syllogism: whatever is immediately perceived by sense, is an idea; sensible things are immediately perceived by sense; for the proof of which he appeals to experience; therefore sensible things are ideas; and consequently exist only in the mind. See his Dialogues between Hylas and Philonous.

Mr. Hume concurs with Dr. Berkeley in denying the existence of matter; and advances a step farther, maintaining that the soul is merely a bundle of perceptions, and that there is nothing in the universe but impressions and ideas.

Some late Scots writers, Doctors Reid, Beattie, and Oswald, with a view of obviating those sceptical inferences, which had been derived from the principles of Mr. Locke, have, in opposition to these, offered a new system respecting the nature and origin of our ideas, the outline of which, with remarks, will be inferred under their proper heads, in the course of this work. See Ideas, Intuition, and Common Sense.

We shall only add, that abstractive, on the common system, is no more than generalizing: it is making one thing stand for a hundred, by omitting the consideration of the differences between them: it is taking several different, i.e. different combinations, setting aside the peculiarities in each, and considering only what is found alike in all. Thus it is, that I say, I love my friend, I love my mistress, I love myself, my bottle, my book, my cage, &c. Not that it is possible, I should have the same perception with respect to so many different forts of things, things that stand in such different relations to me; but only that there appearing something in them all that bears a resemblance to the rest, in some circumstances or other, I chuse to express all by one name, love.

For if I consider the tendency and effects of them all, I shall find they lead me very different ways, to very different actions; all the analogy there is between them, is a sort of pleasure or satisfaction, arising upon the application of the particular object to its proper organ, or sense. The abstractive idea of love, then, will terminate in the idea of pleasure: but it is certain, there can be no idea of pleasure without a thing pleasant to excite it. Any other abstract idea of pleasure will amount to no more than a view or perception of the circumstances whereby our pleasures have been attended; but there are mere externals foreign to the pleasureable sensation itself; which nothing, but an object applied in such and such a manner can excite. To suppose an idea of pleasure produced indirectly, by any other than by the proper cause, is as absurd as to suppose an idea of sound, produced without a sonorous object. The mind has no power of making any idea, call them what you will, whether abstractive or concrete, or general, or particular: it proceeds no farther than to the perceiving of such as are presented to it; so that its action is really no other than a degree of passion.

ABSTRACTIOUS, or ABSTRACTIVE, is applied by some modern Chemists to a spirit drawn from vegetables without fermentation. ABSTRACTUS, aíberus, formed of abs, from, and trade, I thereof, denotes something deep, hidden, or far removed from
from the common apprehensions, and more intelligible ways
of conceiving; in opposition to what is obvious and
palpable.
In this sense **Mysticism** is an absurd science; and many
speculations of **Mathematics** are likewise absurd.

**ABURD** is, **Aseries**, a term applied to any action or
sentiment that thwarts, or goes contrary to some evident
truth.

Thus, a proposition would be absurd, that should affirm
that two and two make five, or that should deny them to
make four.

The **Logicians** and **Mathematicians** have a way of proving
the truth of a proposition in this indirect manner, by showing
that the contrary is absurd.

This they call

*Reductio ad absurdum*, or arguing ex absurd,

As absurd, when applied to actions, is synonymous with ri-
diculous.

**ABURDITY**, a kind of error or offence against some
evident or generally allowed truth or principle.

The greatest of all absurdities is **Contradiction**.

The schoolmen make two species of absurdities—The one
absolute, or which is repugnant to the common sense of
mankind; the other relative, or which contradicts some
one, or more philosophers, or persons of great weight and
authority.

In this sense the doctrine of a **vacuum** is an absurdity;
as being contrary to Aristotle; and that of a **plenum**, as
being contrary to Sir Isaac Newton. In effect, there is
fear of one truth of any moment, that is not an absurdity
in this sense; as being repugnant to the system of some fecl
or party.

As reason contends in the due use of names and words,
as absurdity consists in the abuse of them. Hobbes aligns
as absurdity as a privilege peculiar to man, and which no other
creature is capable of; he adds, that of all men, those
called philosophers are most exposed to it. Whence the
saying of Cicero, there is nothing so absurd but has been
found by a philosopher, *nihil tam absurdum dic est potest, quod
non dicitur a philosophis.* The reason seems to be, that of all
men they reason, and disagree most. Yet a nearer and
more apposite cause may be assigned, viz. their neglect
at setting out, to define the terms they make use of,
i.e. to assign the precise idea each is made to represent:
which is much like a man's undertaking to number, without
knowing the value of the numeral figures; reasoning, ac-
cording to the author first cited, being no other than com-
plying. Divers absurdities also arise from the wrong con-
jecturing of names into propositions; as first, when the names
of bodies are applied to accidents; or the names of accidents
to bodies; as in that proposition, *faith is infused or in-
spired:* since nothing is either fusible, or insiprable, but
body: and the same absurdity the **Catastrophists** fall into,
when they make extention to constitute body, &c. Secondly,
when the names of accidents inherent in external bodies are
attributed to accidents of our own bodies: as when it is
said, that colour is in the object, found in the air, &c.
Thirdly, when the names of bodies are attributed to words,
or conceptions; as is done by those who affect that there
are univercal things, that animal is a genus, &c. Fourthly,
when the names of accidents are given to words, and propo-
sitions; as when it is said, that the definition is the nature
of the thing, or a person's command is his will. Fifthly,
when in lieu of proper words, metaphors and tropes are
made use of: as, the way leads to such a place, the pro-
verb says this or that: which though allowable on ordinary
occasions, yet is of mischievous consequence in reasoning and
searching after truth. Lastly, when names are taken at
random, and used without meaning, as transubstantiation,
consubstantiation, entelechies, &c.

He that can avoid these rocks will not easily fall into an
aburdity, except in a very long chain of reasoning, when he
may be apt to forget some proposition before laid down.

Hobb. Lev. P. i. c. 5. p. 22.

**ABUSUS**, the Egyptian **lotus** of Ray. See **CASSIA**.

**ABSYNTIUM**. See **ABSOIYTM**.

**ABSYRTIDES**, or **ABSYRTIDES**, in **Ancient Geography**.

islands in the Adriatic, on the coast of Illyricum, mentioned
by Strabo, Pliny, Mela, and Ptolemy, to which certain
**Aphryta** or **Aphyrism**, and **Aphorus** or **Aphoros**; so called ac-
cording to Strabo (tom. i. p. 48.), and Pliny, (tom. i. p.
181.) from **Aphyrus**, Medea's brother, who was slain
there. They are separated by a channel, and are now called
**Cheofo** and **Ofeo**.

**ABYRUS**, in **Mylology**, the son of **Ceta** and **Ap-
fe residents, and brother of **Medea**. When Medea ran away
with Jalon, whom the affidied in carrying off the golden
fleece, she was pursuied by her father; but in order to retar-
d his progress, he tore **Aphyrus** in pieces, and stretched his
limbs in the way.

**ABTHANES**, in **History**, a title of honour anciently
used in Scotland, denoting the high order of **thanes**, or
king's ministers, in contradistinction to the lower, called
understainers.

**ABUBEKER**, or **ABU BEER**, i.e. the father of the
girl or virgin, viz. **Ayeda**, who was of this description
when Mahomet married her, the first caliph, and successor of
Mahomet. His original name was **Abdulcaaba**, the fer-
vant of the **Caaba**, denoting his piety; which name was
changed by Mahomet on his conversion, into **Abdallah**, the
servant of God; and on the prophet's marriage with his
daughter, he assumed the appellation of **Abubeker**. He was
eminently useful to this impoitor at the commencement of
his undertaking, as he vouched for his veracity in everything
he related concerning his revelations, and his nocturnal jour-
ney to heaven; and very much exerted himself in augment-
ating the number of his followers. On this account the pro-
phet gave him the surname of **Al Sediik**, which denotes
the faithful witness, and the appellation **Atlik**, or prefered,
*i.e.* vouched for hell-fire, thus intimating that he was one of
the elect. At the time of Mahomet's death, two powerful
parties, called the **Mohajerim** and the **Anfars**, claimed the
right of nominating his successor. The former founded their
pretensions on their having attended the prophet in his flight
to Medina, and declared themselves in his favour before any
of the other Arabs joined him; whilst the latter pleaded,
that they supported him when he was expelled his native
city, and enabled him to fustain his opposition, when he and
his followers were in a state of persecution. At length,
however, by the interposition of **Omar**, they concurred in
the election of **Abu Beeer**, A.D. 632. As many of the
Arabs had renounced their new religion, and returned to
paganism, judaism, or christianity, towards the close of Ma-
homet's life, and after his death, they were unwilling to pay
the customary tribute which he exacted of his followers, and
made attempts for throwing off the yoke which he had im-
posed upon them. **Abu Beeer's** first attention was engaged in
reducing these rebels, whom he defeated, and whose
children he made slaves. This service was conducted by
**Khaled**, or **Caled**, an excellent general; who afterwards by
his conduct and bravery conquered **Syria**, and greatly con-
tributed to the establishment of the Mahometan religion and
policy. On the day, however, of the reduction of **Damas-
cus**, Abu Beeer died, in the 13th year of the **Hegira**, hav-
}
ing attained the age of 63, and reigned only two years and three months. A little time before he expired he made his will, and appointed Omar for his successor. He dictated it to his secretary in the following terms: "In the name of the most merciful God, This is the testament of Ab- | dallah Ebn Abu Kohafa, when he was in the hill hour of this world, and the first of the next; an hour in which the infidel shall believe, the wicked person beaffles of the reality of those things that he denied, and the liar speak the truth. I appoint Omar Ebn Al Khattab my successor; therefore hearken to him and obey him. If he acts right he will answer the opinion I have always entertained of him, if otherwise, he must be accountable for his own conduct. My intention herein is good, but I cannot foresee future events. However, those who do ill shall hereafter be made fully sensible of the consequences of their behaviour. Fare ye well, and may ye always be attended by the divine mercy and benediction." Before he expired, he prayed God to bless the choice he had made; to inspire the Moftems with sentiments of concord and unanimity; to render their affairs prosperous and flourishing; and to enable them to propagate the doctrines of the Koran in the most effectual manner, as by the prophet Mahomet, in his last moments, they had been most strictly enjoined. Among other sayings of Abu Beer that are recorded, the following are worthy of notice: "Good actions are a guard against the blows of adversity;" and "Death is the easiest of all things after it, and the hardest of all things before it." Such was the liberality of his disposition, that on the Friday of each week, he distributed the residue of his own and the public money, after appropriating a very small sum to his own maintenance; first, to the most worthy, and then to the most indigent, of the Moftems. Gibbon's Hist. vol. ix. 358. 8vo.

ABUCARAS, Theodore, was bishop of Charrax, or Haran in Mecopotamia, and lived in the eighth century. At first he adhered to the party of Photius, and in connection with Zachary, bishop of Chalcedon, undertook an embassy to the emperor Lewis II. for the purpose of presenting Photius's book against pope Nicholas, and inducing him to throw off the papal yoke. He afterwards abandoned the interest of Photius, and was restored, after humiliating submition, to his place in the council of Constantinople, from which he had been excluded. Several treatises bearing the name of Abucaras, written against Jews, Mahometans, and Heretics, have been collected by Gretzer, and published in 4to. at Ingolstadt, in 1666. Another treatise by Abucaras, intituled, De Unione & Incarnatione, was found by Mr. Arnold in the Bodleian library, and published at Paris in 1655, in 8vo. Some have doubted whether Abucaras, the friend of Photius, and the author of these treatises, be the same person, Morer.

ABUCATUS, in Ethnology, the name given by Marc-grats to the Zesus gallus of LImnns.

ABUCO, Abocco, or Anocc, a weight used in the kingdom of Pegu. One abuco is twelve teccalas and a half; two abucos make an agira, which is also called gir; two girls make half a biza; and a biza weighs a hundred teccalas; that is, two pounds and five ounces the heavy weight, or three pounds nine ounces light weight of Venice.

ABUDHAHER, or Abu Thahir, succeeded his brother Abufaid, in the 311th year of the Hegira, at the age of eighteen, as chief of the sect of the Karmathians; and proceeded with a large army to Baffora, which he took and pillaged. The next year he intercepted and plundered a caravan returning from Mecc to Bagdad; and having been

refused the sovereignty of Baffora, he pillaged Cufa in the following year, and put many of his inhabitants to the sword. He afterwards threatened Bagdad, but was obliged to retreat. However, in the 316th year of the Hegira, he seized the towns of Rababa and Karkoba in Mecopotamia. In the 317th year, he laid waste Mecc, plundered the pilgrims and the inhabitants, killed 300,000 of whom 1700 were murdered within the walls of the Caffa; and having profaned this holy place, he carried off the black stone, which remained in the custody of the Karmathians for twenty-two years; but finding that the temple was still veiled and returned to by pilgrims, they reforted it. Abudthaher ridiculed the Mahometan religion, and insulted its votaries; reproaching them with the folly of calling the edifice at Mecc God's house, which he was allowed to profane without being destroyed by the thunder of the Almighty. Six years after these outrages he made a treaty with the Caliph Al Rabi, who granted him an annual tribute of 120,000 dinars, on condition of his permitting the pilgrims to pass to Mecc without molestation. This chief refuted at Hajar in Yemen, where he built a palace, and lived till the year of Christ 953, in the peaceable possession of a large territory. Bayle. Mod. Uni. Hist. vol. ii. p. 311, &c.

ABU JAAIFAR AL TABARI, an Imam of great piety, as well as of very extensive reading and erudition, was born at Anm, or Anad, the capital of Tabreizan, whence his name, in the year of the Hegira 224; and though he was a fireous defender of the koran, he was buried at Bagdad as a heroic or saint. His work, intituled Al Tarikh Al Tabari, is held in high estime, and considered as the basis of all the histories of the Moftems. What we now have is only an abridgment of a much larger work. It began with the creation of the world, and continued, according to Abulfeda, to the year of the Hegira 522; or, as others say, to the time of the author's death, in the year 530. The Tarikh was translated into Perfie and Turkish, and continued by different writers to the year of the Hegira 521. Mr. Ockley says, that an imperfect MS. copy of it, in Arabic, is preferved in the Bodleian library at Oxford. Mod. Uni. Hist. vol. ii. p. 309.

ABUKESB. See ASERAI.

ABULFARAGIUS, or Abu Farai, or Abulfra- gius, Gregory, in Biography, son to Aaron, a chritian physician, was born in 1226, in the city of Malta, near the fource of the Euphrates, in Armenia. He practifed phyfic with success, but was more distinguished by his study of the Greek, Syriac, and Arabic languages, as well as philosophy and divinity. The annotations of his contemporaries are dictated in the style of the highest panegyric, and he is intitled, the king of the learned, the most excellent of those who excel, the example of his times, the prince of his age, the glory of the wife, and the crown of the virtuous. He wrote a hislorie in Arabic, divided into ten dynasties, which is an epitome of universal history, from the creation of the world to his own time, and which does honour to his memory. The parts relating to the Saracen, Tartar Moguls, and the conquests of Jenghiz Khan, are the most valuable. It was published with a latin translation, in two small quartos, at Oxford, in 1663, by Dr. Pococke, who annexed to it a brief continuation relating to the history of the califh prince. He had, in 1653, published an extract from this work, intituled, "Specimina Hist. Ar- camb.," &c. Abulfaragius was ordained bishop of Cufa at twenty years of age, by Ignatius, the patriarch of the Jacobites; and, about the year 1266, he was elected their pri- mate in the califh, which dignity he possessed till his death, in 1286, which happened at the time when he is said to have predicted,
A B U

precluded, and expected it. Considering the age in which he lived, it is not wonderful that miracles were ascribed to him; but it is needless to record them in this place. Abul-"fraganus wrote about 30 tracts, besides the history above mentioned, which are recited by Aflennanus. The learned Poock: vindicates him from the charge of having renounced Christianity. There was another Abulfargius, named Abulha Ebn Attiba, who died A.D. 1043. He was a Nestorian monk, a learned man, and a philosopher. He wrote a commentary on the Old and New Testament, in Arabic; he also explained the works of Aristotle, and reprinted the Nestorian patriarchs for their neglect of ecclesiastical learning.

A B U L, P A Z L, i. e. the foter of excellence, the title which was given to the secretary and vizier of the Mogul emperor Akbar. He was deemed the most learned and best writer in the East. He was murdered by order of Sultan Selim, on a supposition of his having occasioned a misunderstanding between him and the emperor his father. His death was much lamented by Akbar, and many others, who had any regard for literature. He wrote a history of the Mogul emperors, which he continued to the 38th year of Akbar's reign, A.D. 1554. His official correspondence formed three volumes, and was much esteemed. Frazer's "Koh Khan, p. 14.

A B U L F E D A, I s m a i l, prince of Hamah, a city of Syria, was born in the year of the Hegira 672, A.D. 1275, and was the sixth in lineal descent from Ayub or Job, the father of the famous Saladin. He was a lover of study, and particularly of geography, which may be inferred from a work, intitled, "Chosamaz & Mawaranahra, n. e. Regionum extra fluum Oxum descriptio, et tabulis Abulfeda Ismaïl, Principis Hamah. It was printed in London in 1652, by our learned countryman John Gravius, who has added to the Arabic original a Latin translation, with a preface, informing us that he consulted five MSS. At the conclusion of this work it is said to have been finished in the 721st year of the Hegira, or A.D. 1312. The tables are given in the order of the climates, with the degrees of longitude and latitude. Abulfeda is said to have discovered the true longitude of the Calpian sea, concerning which Ptolemy was mistaken. A new edition of this work was published at Oxford in 1712, by M. Gagnier, in the third volume of Hudfon's "Geographia veteris Scriptorum Graecorum minores: and another at London, in 1732, fol. Abulfeda wrote other works, which manifested his general literature; for he is said to have been acquainted with jurisprudence, physic, philosophy, astrology, history, and poetry, as well as geography. His "General History," from the beginning of the world to his own time, was continued to the year 735, or A.D. 1329. He also wrote "A short systern of the "Mohammedan civil law," "A Treatise of Physic;" and some poems. He is also supposed to be the author of the "Afrumesian Tables," of which there is a copy in the Bodleian library. His "Life of Mahomet," was published in Arabic and Latin, at Oxford in 1731; and his treatise on the "Life and Actions of Saladin," was printed, with a Latin translation, at Leyden, in 1732, fol.

Abulfeda was no less a military man, than a student. He served under his father in several expeditions, and he was present at the burning of Tripoli, A.D. 1289; and at the capture of Acco, or Ptolemais, A.D. 1291, as well as on other occasions, when he distinguished himself, by his skill and valor. He died about the 732d year of the Hegira, A.D. 1332. We are cautioned by the editors of the General Dictionary from confounding Abulfeda with Ismael, summamed Shakeilsh, the compiler also of a General History, which

is mostly transcribed verbatim from the work of that prince. Gen. Dict.

A B U L G H A Z I, Bayzar, khan of the Tartars, was born in the city of Urgens, capital of the country of Karazm, in the year of the Hegira 1014, A.D. 1605. He was descended both by his father's and mother's side, in a direct line from Zingis Khan, or Jengizkhan. After experiencing many misfortunes in early life, he became sovereign of Karazm, in the year of the Hegira 1554, and having reigned twenty years, and by his courage and conduct rendered himself formidable to his neighbours, he resigned the throne to his son some time before his death, in order to devote the remainder of his life to the service of God. In his retreat he wrote the famous genealogical history of the Turks, but being prevented by his death, in the year 1474, of the Hegira, from finishing it, he left it in charge with his son and successor to complete it, which was done in two years afterwards. It is written in the Mogul, or Turkish language, and divided into nine parts; the two first treat of the khans and tribes descended from Turks, the son of Japhet, to the time of Jengizkhan; the third relates the life and actions of that conqueror; the five next treat of his sons and successors in the several parts of Tartary; and the ninth treats of the khans of Karazm to the death of the author. This history was procured by Strahlenberg, while prisoner in Siberia, and has been translated into Russian, German, French, and English. As this book is one of the chief funds which afford materials for the history of the Turks and Tartars, it will not be improper to mention the authority on which it is founded. The grandson of Jengizkhan, being desirous of preserving the memory of the Mogul tribes, and the signal exploits of his ancestors, sent a nobleman, skilled in the Mogul language, into Tartary, in order to collect materials for this purpose. At his return his memoirs were digested, under his own inspection and assistance, into a work, which consisted of three folio volumes, and was finished in the year of the Hegira 702. The first volume is in the Library at Paris, and was translated by De la Croix, the son, but not published. It was chiefly from this history that Abulghazi extracted his work, excepting that part which relates to the Usbecks of Great Buhkaria and Karazm. A French translation appeared at Leyden in 1726, 12mo. Mod. Un. Hilt. v. iii. p. 334.

A B U L O I A A H M E D, one of the most celebrated of all the Arabian poets, was born at Maara, a town of Syria, A.D. 973. He lost his sight by the small-pox, at three years of age; at forty-five he left off the use of animal food, in conformity to the tenets of the Bramins, and also that of eggs and milk, and lived only on vegetables. He died in 1057. He was not esteemed by the orthodox, as a found Mulumin, for one of his sayings was, "The chijfions wander here and there in their paths, and the mahomets are entirely out of the way." Another of his apothegms is, "The world is divided between two forts of persons, of whom some have fene without religion, others religion without fenfe." The inscription which he ordered for his tomb confirmed the suspicions of his orthodox: "This crime did my father commit against me, "but I have not committed the fame against any." Gen. Dict.

A B U M O S L E M, a governor of Khorasan in the second century of the Hegira, who, A.D. 747, caused the death of caliph to pass from the race of the Omicides to the family of Abbas; and who, in accomplishing and maintaining this revolution, is said to have killed 600,000 persons. Notwithstanding the services which he had rendered to Almanzar, this caliph, A.D. 759, ordered him to be privately
by afflicted, as some say; or, as others report, to be
thrown into the Tigris. His character has been variously
represented by different writers. Some say, that he was
a fierce brutal soldier; and by others, he is described as dif-
creet and merciful. Some extol his acquaintance with
the poets of the country, and with the moral precepts of his
religion; and others degrade his character as a glutton and
feantitul. Bayle says, that he was addicted to magic, and
dwelt near the springs of Fratica, in the Hindu, where
he was crowned, and which was the place of his usual
residence. His valor was so distinguished, that he was called
Bahadur, or brave. Having fallen in love with the daughter of
Emir Janjan, who was married to the Emir Hafian, and who was
deemed the greatest beauty in Aba; and the father refusing to
conced her divorce from her husband, Abu Said conceived a
prejudice against him, which terminated in his death. Hafian
however, acquiesced in a divorce, and sent her to the sultan,
whom he obtained a great ascendancy. Abu Said was the
left monarch of the race of Kajfujkhan; and after his
death, that happened in the year in which Tamerlane was
born, the empire was dismembered, and became a scene of

ABUSE, compounded of ab, from, and usus, use, an irr-
regular use of a thing, or the introducing of something con-
trary to the true intention thereof.

In Grammar, to apply a word abusively, or in an abusive
manner, is to misapply, or pervert its meaning.

A permutation of benefices, without the consent of
the bishop, is deemed abusive, and consequently null.

ABUSINA. See Abersberg.

ABU TEMAM, in Biography, sprung from an Arabian
tribe, famneous Tay, and considered as the prince of the
Arabian poets, was born in the 90th year of the Hegira, A. D.
805, or as others say, in 188, or 152 Heg. i. e. A. D.
803, or 807; or in 172 Heg. i. e. A. D. 788, at Jafem, a little
town situated between Damascus and Tiberias. He
was educated in Egypt, and died at Mawfel, near the spot
where ancient Niniveh stood, in the year 219th year of the Hegira,
A. D. 845; or in 228 or 232 Heg. i. e. A. D. 845.
His poetical compositions were collected with those
of others, into a volume, and intitled Al Hamadah. Having
written an elegy on the death of another, the following eulo-
gium was given Abu Teman:

The man whose virtues thus ascend the sky,
Pray'd (m'ighty Bard) by thee, can never die. Gen. Dict.

ABUTILON, in Botany, the trivial name of several
species of the Sida. See also Hibiscus, Melochia, Mal-
va and Napar.

ABUTALLO, among Low-writers, denote the but-
ings or boulders of a piece of land; expressing what
other lands, highways, or the like, the several extremes
thereof do abut, or terminate. In this sense the word is
sometimes also written corruptly abuttals or abuts.

I... old surveys, we often find them called headlands.
Abuttals amount to the same with what Latin writers call
capita; Marculiis, frontes; the French, frontes. In Coke,
the plaintiff is said to fail in his abuttals, that is, in setting
forth how the land is bounded.

ABUTUA, in Geography, a kingdom in the south of
Africa, to the north of the country of the Hottentots,
and adjoining to the province of Oliha, which is said to be
rich in gold mines.

ABYDENUS, in Biography, a celebrated historian, author
of the history of the Caldeans and Assyrians, of which only
some fragments have been transmitted to us by Eusebius in his
Preparatio Evangelen, Cyrilus, and Syncellus; which have
been illustrated with several notes by Scaliger in his book
De Emendatione Temporum.
ARYDON. See Ambyon.

ARYDOS, in Ancient Geography, a town built by the Miletians, in Asia, on the Hellespont, where, according to Le Brun, (Voyage au Levant,) the freight is only half a mile, others say two miles wide, opposite to Sestos, on the European side; both of which, according to some geographers, are now called the Dardanelles; but others say, that Sestos was much nearer the Propontis than Abydos; and Strabo. (I. xiii. p. 460.) reckons 3750 paces from the port of Abydos to that of Sestos. Abydos was situated midway between Lamppus and Ilium, and was famous for Xerxes' bridge, mentioned by Herodotus, i. vii. c. 34.; and by Lucan, Pharn. ii. ii. v. 672.; also for the loves of Leander and Hero, recorded by Musaeus and others, and celebrated for its goddesses by Virgil and Ennius. The inhabitants were effeminate, and also addicted, according to Stephanus, (de Urbibus, vol. i. p. 9.) to calumnies; whence the proverb, Ne turbe Abeodum columbus, when we would caution against danger. This city was formerly very important, as it commanded the straits, and made those who were poisselled of it matters of the communication between the Euxine sea and the Archipelago. It was defended by its inhabitants with great courage and obstinacy against the attack of Philip of Macedon, but at length surrendered amid the horrors of almost universal slaughter, A. M. 5805. Ant. J. C. 201. Fifty of the citizens were compelled to take an oath, in the presence of all the inhabitants, that when they saw the enemy master of the inland wall, they would kill the women and children, set fire to the galleys laden with their effects, and throw into the sea all their gold and silver; and then, in the presence of the priests, they took another oath, either to conquer or die sword in hand. After the surrender of the city, this dreadful resolution was executed to such an extent, that the individuals of every family killed one another, and none evacuated but those who by violent restraint were prevented from destroying themselves. Abydos was taken by the Turks, through the treachery of the governor's daughter, in the year 1330.

ABYDUS, an inland town of Thebes in Upper Egypt, between Ptolemais and Diospolis Parva, towards Cyene, famous for the palace of Memnon and the magnificent temple of Osiris built by Ispanides, into which no fingers or dancers were allowed to enter. Here the Egyptians revered the oracle of the God Bes, which was one of the most ancient oracles of Egypt, and famous even in the time of the emperor Constandius. Strabo, vol. ii. p. 1167—1169. Pliny, l. v. c. 9. Stephanus (Urb. vol. i. p. 9.) say, that it was a colony of Milesians. The city, reduced to a village, under the empire of Augustus, presents in our time nothing but a heap of ruins without inhabitants. About three miles west of the Nile, in the place, as Pococke (Descript. East. p. 83.) conjectures, where the present village El-Beshe is situated, but to the west of these ruins is still found the celebrated monument of Ispanides. The entrance is under a portico, 60 feet high, and supported by two rows of mafy columns. This leads into a temple 300 feet long, and 145 wide. There are several other spacious apartments, which communicate with one another, both by passages and stair-cases. The solidity of the edifice, the huge masses of marble which compose it, and the hieroglyphics that cover the walls, evidently testify that it is a work of the ancient Egyptians. In the multitude of human figures, which are intermixed with those of other animals, there may be discovered women funeralizing their children, and men presenting offerings to Venus. Here are also the divinities of India, such as they are represented in the temples of Judean. Six lions' heads, placed on the two sides of the temple, serve as spouts to carry off the water. The stair-case is formed of stones incutted in the wall, and projecting fix feet from it, so that being supported only at one end, they appear to be suspended in the air. The walls, roof, and columns of this stupendous edifice, have suffered nothing from the injuries of time; and its solidity will resist the natural decay of many ages. Except the colossal figures, whose heads serve as an ornament to the capitals of the columns, and which are sculptured in reliefs, the other hieroglyphics, which cover the insides, are carved in stone. To the left of the great building, there is another much smaller, with an altar at the bottom of it, which was probably the sanctuary of the temple of Osiris. Savary has minutely described this structure in his Letters on Egypt, vol. ii. p. 5. &c.

ABYLA, one of Hercules' pillars, on the African side, called by the Spaniards Sierra de las Monas, over against Culpe, in Spain, the other pillar. These were supposed to have been formerly joined, but separated by Hercules, in order to make an entrance into the sea, now called the Mediterranean. This, according to Pliny, (Proem. l. 3.) was the limit of the labours of Hercules. The Hebrew 254 ab, denotes a thick cloud, and also a column, and might therefore be applied to a high mountain, or to the pillar of Hercules. See Bochart. Oper. tom. i. p. 731—733. Edit. Villan. See the other authors Strabo, Melas, and Ptolemy, cited by Cellarius, tom. ii. p. 156.

ABYLA. See Abila.

ABY, or AUYO, in Geography, one of the Philippine islands, in the East Indies, between Mindanao and Luzon, where the Spaniards have a fort. E. long. 122° 15'. N. lat. 10° 6'.

ABYS, in a general sense, denotes something profound, and, as it were, bottomless.

The word is originally Greek, ἀβυσσος; compounded of the privative α, and βυσσόν, bottom; q. d. without a bottom.

ABYSS, in a more particular sense, denotes a deep mafs, or fund of waters.

In this sense the word is particularly used, in the Septuagint, for the water which God created at the beginning with the earth, which encompassed it round, and which our translators render by the deep. Thus it is that darkness is said to have been on the face of the abyss.

Abyss is also used for an immense cavern in the earth, where God collected all those waters on the third day; which, in our version is rendered the deep, and elsewhere, the great deep.

Dr. Woodward has made several observations and conjectures with reference to this great abyss, in his Natural History of the Earth. He affirms, that there is a vast collection of waters enclosed in the bowels of the earth, constituting a huge orb in the interior or central parts of it; and over the surface of this water he supposes the terrestrial strata to be expanded. This, according to him, is what Moses calls the great deep, and what most authors render the great abyss.

The water of this vast abyss, he alleges, communicates with that of the ocean, by means of certain hiatuses, or chasms passing betwixt it and the bottom of the ocean; and this and the abyss he supposes to have one common centre, around which the water of both is placed; but so that the ordinary surface of the abyss is not level with that of the ocean, nor at so great a distance from the centre, as the other, it being, for the most part, restrained and depressed by the strata of earth lying upon it; but wherever these strata are broken, or are so lax and porous, that water can
can pervade them, there the water of the abyss ascends, fills up all the clefts and fissures into which it can get admittance; and saturates all the interstices and pores of the earth, stone, or other matter, all round the globe, quite up to the level of the ocean.

The existence of an abyss, or receptacle of subterraneous waters, is controverted by Camerarius, (Diff. Taur. Act. Erud. Sup. tom. vi. p. 24.) and defended by Dr. Woodward, chiefly by two arguments; the first, drawn from the vast quantity of water, which covered the earth in the time of the deluge; the second, from the consideration of earthquakes, which he endeavours to shew are occasioned by the violence of the waters in this abyss. A great part of the terrestrial globe has been frequently shaken at the same moment; which argues, that the waters, which were the occasion thereof, were co-extensive with that part of the globe. There are even instances of universal earthquakes; which shew that the whole abyss must have been agitated: for if general an effect must have been produced by as general a cause; and that cause can be nothing but the subterraneous abyss.

This abyss is no useless thing; when once established, it serves to solve several difficult phenomena; as the origin of springs and rivers; the level maintained in the surface of different seas, and their not overflowing their banks. To the effluvia emitted from this abyss some even attribute all the diversities of weather, and changes in our atmosphere; and, what is more, the origin of every thing in the earth, or in its surface. Dr. Woodward has an epistle on the economy of the great abyss hid in the bowels of the earth, and the perpetual communication between it and the atmosphere. Ray, (Physico-Theological Discourses, p. 76. ed. 4.) and other authors, ancient as well as modern, suppose a communication between the Capfian sea and the ocean, by means of a subterraneous abyss: and to this they attribute it, that the Capfian does not overflow, notwithstanding the great number of large rivers it receives; of which Kempfer reckons above fifty, in the compass of sixty miles. But the daily evaporation may be sufficient for this purpose. See Evaporation, Sea, and Spring.—The different arguments concerning this subject, are collected by Cockburn in his Inquiry into the truth and certainty of the Mosaic deluge, p. 271. See Deluge, Earth, and Volcano.

Abyss is also used to denote the cavernous belly of a hollow mountain.

In which sense Mr. Tournefort describes the abyss of mount Ararat. This, and similar gulsps, or precipices in mountains, M. Buffon, and others, suppose to be the craters of extinguished volcanoes.

Abyss is also used to denote hell. In which sense the word is synonymous with what is otherwise called Barathrum, Erebus, and Tartarus: in the English Bible, the bottomless pit.

Abyss is more particularly used, in Antiquity, to denote the temple of Proserpine.

It was thus called, on account of the immense fund of gold and riches deposited there; some say hid under ground.

Abyss is also used in Heraldry, to denote the centre of an Echevron.

In which sense, a thing is said to be borne in abyss, en abysme, when placed in the middle of the shield, clear from any other bearing: he bears azure, fleur de lys, in abyss, Colombiere.

Abyss is also used metaphorically, for a thing not to be known or comprehended, on account of its immense extent, or profundity.

In which sense it coincides with secret, inerutable, incomprehensible, &c.—The judgments of God are called a great abyss.

Abyss, in Hydrography, is synonymous with Gulf.

ABYSSINIA, or, as it is sometimes called ABBASIA, HABASSIA, and UPPER AETHIOPIA, in Geography and History, an empire of Africa, situated in the Torrid Zone, and mostly comprehended between 35° and 16° N. lat. and 46° and 40° E. long. As to the etymology of this name, some have sought for it in the fruitful spots amongst rugged deserts with which the country abound, and which the Egyptians call abyss; and others have traced it to Abuza, the capital of the kingdom of Adel, whose monarchs were once masters of Abyssinia; but Ludolius, and many who have adopted his opinion, ascribe the origin of the appellation to the Arabic habša', which has the same meaning with the Latin Constantinopolis, and signifies a number of distant peoples meeting together accidentally in one place. This etymology, it is alleged, corresponds to the manner in which this country was originally inhabited. For the appellation of Pfeffer or Prebyter John's empire, which the Portuguese gave to this country, there is no sufficient foundation, as there was no person of this denomination that was ever known in Abyssinia. See Prester John.—The imaginary limits of this country have been erroneously extended by ancient geographers far beyond the equinoctial line, and its real boundaries have been in later times very much reduced by the invasion of a barbarous people, denominated Gallus, of whom we shall give an account under that article. It is at present bounded on the N. by the kingdom of Sennar, on the E. and N. E. by the Red Sea, on the S. by the Gallus, and a vast chain of mountains extending with little interruption from 44° to 44° E. long. and between 35° and 9° N. lat. and on the S. E. by the kingdom of Adel, and on the W. by the Nile, and some adjacent provinces. But its boundaries have suffered so many intermissions and encroachments, that they are not easily ascertained. At the time of Lobo's mission, in 1624, it extended from the Red Sea to the kingdom of Congo, and from Egypt to the Indian Sea, containing forty provinces. At Malauah, i.e. on the coast of the Red Sea, says Mr. Bruce, begins an imaginary division of Abyssinia, into two parts: the first is called Tigre, between the Red Sea and the river Tazzzez; the second is Amhara, between that river and the Nile, westward, where it bounds the Gallus. But this division respects language, rather than territory; and it is, in neither view of it, sufficiently precise and determinate. The provinces now comprehended under the empire of Abyssinia are the following; viz. Malauah: Tigre; Sire; Samen: Waldbba: Begemder, bordering upon Angot, which is almost wholly conquered by the Gallus; Amhara; and between the rivers Gethen and Samba, a low, unhealthy, but fertile province, called Walaka; and to the S. of this the Upper Sho: Gojam: Damot: Malatwa: the province of the Agowe; Dembea on the south of Gondar, and Waggora a small province on the eait, which are altogether fown with wheat, and are the granaries of Abyssinia; and to the south of Dembea, Kuara. There are many other small provinces, which are occasionally annexed, and sometimes separated, such as Guefgrè to the east of Kuara; Waldbba, between the rivers Gournge and Angrab; Tschè and Wakhay on the west of Waldbba; Abergélé and Selawa, near Begemder; Temben, Dobas, Giannamora, Bur, and Engana, in the neighbourhood of Tigre, &c. Such was the state of the country at the time when Mr. Bruce visited it. These
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former provinces form one empire, subject to a monarchy, hereditary in one family, but elective in that line, and elective; of which the capital was formerly Axum, but is now Gondar.

The surface of this country is generally rugged and mountainous; it abounds with forests and morasses; and it is also interspersed with many fertile valleys and plains, that are adapted both to culture and to tillage. The rivers of Abyssinia, which are numerous and large, contribute very much to its fertility. Besides the Nile, which has its source in Gedd, an elevated district of this country, there are also the Tocazzè, the Kibber, or as the Portuguese call it, Zebir's, which lies indeed beyond the extent of Abyssinia, as it has been above assigned, the Mareb, the Haax or Hawash, the Coron, which rises in Anguat, and empties itself into the Tocazzè, the Angueu and Lidda, which form branches of the Mareb, the Ambala, which rises near the source of the Tocazzè, is continued under the name of the Hanazo, through the kingdom of Dawaro, and discharges itself near the bay of Zeyba, the Bahillo, Lohu, Gelhen, Sambé, Jena, Rema, Balu, Rabad, and Dender, which rising in provinces bordering on the Nile, empty themselves into that river; the Angrab, Tukoor, and Guanque, which flow into the Tocazzè, &c. The principal collection of water in this country, is the lake of Tana, or, as it is generally called, the lake or sea of Denbe. The climate of Abyssinia, though, like other parts of the torrid zone, it was formerly thought to be uninhabitable, is not only tolerable, but in general temperate and healthy. In this respect, however, the uneven surface of the country exposes different situations to the effects of heat and cold, of dryness and moisture, and of a free circulation or a stagnation of the atmosphere in very various degrees. On the mountains, and in the higher parts of the country, the sky is clear and serene, the air is cool and refreshing, and the people are healthy and sprightly; whilst those who live in some of the valleys, in the vicinity of marshes, and in sandy deserts, cannot but experience the pernicious influence of excessive heat, and of a noisit, flagellant, and suffocating air; so that the climate depends upon soil and situation as much almost as upon the altitude; and therefore no description of it will equally suit the several provinces. Mr. Bruce (Travels, vol. iii. p. 662.) observes, that on the highest mountain of the ridge called Lamalmon, the thermometer stood at 22° in the depth of winter, the wind being N.W. clear and cold, but attended only with a slight frost. This, he adds, vanished into dew after a quarter of an hour's sun; nor did he ever see any sign of congelation upon the water upon the top of this, or any other hill. The barometer stood at 39° 9' at noon of the same day, and the therm. was at 78°. He observed had to lie for three hours in the foreshore on the mountains of Amid Amid. From an examination of Mr. Bruce's register of the barometer and thermometer, &c. kept at Gondar, from February 19, 1779, to May 31, 1774, it appears, that the greatest height of the barometer was 22° 11' 9", on April 29, at 64° M. the therm. being 69°, and wind S. The least height was 20° 11' 5", March 29, at 24° N. therm. 75°, wind E. The greatest height of the thermometer was 91°, April 19, at 12 N.—Wind W. N. W. The least height was 54° 3', July 7, at 12 N. barom. 21° 6' 7", wind W. The rainy season commences in April or the beginning of May, when the sun becomes vertical, and ends in September. The rains generally cease about the 8th of September; a sickly fever follows till they begin again, about the 20th of October; they then continue constant, but moderate, till the 8th of November. All epidemic diseases cease with the end of these rains. In order to avoid the inconveniences that attend the overflowing of their rivers during this season, as well as on account of the greater fulness of elevated situations, the Abyssinians have built many of their towns and villages on the mountain. Their houses are generally very mean, consisting only of one story, and constructed with draw and laths, earth and lime, though there are some of stone, and better materials. It is a mistaken notion, however, that they live in tents, and not in houses. In a climate like that of Abyssinia, subject to speedy weather for six months, and to deluges of rain, storms of wind, thunder and lightning, and hurricanes, such as are unknown in Europe, for the other six, it is not probable that they should chuse to live in tents, after having known how to build such cities as Axum. In many of the towns and villages, the houses are separated by hedges, which being always green and intermixed with flowers and fruit-trees, at certain dillances, afford an agreeable prospect, and contribute also to their fulnss. Notwithstanding every caution, the Abyssinian climate, more especially in particular situations, exposes the inhabitants to a variety of diseases. They are subject to violent fevers, which commonly prove fatal on the third day. Those who survive to the fifth day often recover, merely by drinking cold water, and by repeatedly throwing cold water upon them in their beds. The bark is the most effectual remedy; which in critical cases, (says Mr. Bruce, vol. iii. p. 74.) should be frequently repeated in small doses, and perfect abstinence observed, unless from copious draughts of cold water. Another common disease in Abyssinia, is the tertian fever, which is in no respect different from our tertian, and is successfully treated in the same manner. All fevers terminate in intermittents, and if they continue long, in dysenteries, which are always tedious, and very frequently mortal. Bark and ipecacuanha, in small quantities, water, and fruit not over-ripe, have been found the most effectual remedies. The dysentery, commencing with a constant diarrhoea, is seldom cured, if it begins with the rainy season; otherwise small doses of ipecacuanha either remove it, or change it into an intermittent fever, which yields to the bark. Another endemic disease is called hangare, the hogs or the fwine, and a swelling of the glands of the throat, and under the arms, which, by ineffectual attempts for producing suppuration, and opening the tumours, becomes a running sore, and resembles the evil. In connection with this disorder, we may mention those swellings, to which the whole body is subject, and particularly incident to the arms, thighs, and legs, sometimes accompanied with ulcers in the nose and mouth, which deface the smoothness of the skin, and which on this account are much dreaded by the Abyssinians. The two last diseases sometimes yielded to medicinals; but the last is speedily and completely cured by antimonials. Another complaint afflicts those who are in the habit of drinking flagellant water. It is called Parentote, or the worm of Pharaoh, and appears in all parts of the body, but most frequently in the legs and arms. It is a worm with a small black head and a hooked beak, of a whitish colour, and a white body of a silky texture, resembling a small tendion. The natives fake it by the head and wind it gently round a piece of silk, or a bird's feather, and thus by degrees they extract it without any inconvenience or permanent fear. Mr. Bruce suffered much from this complaint, and the breaking of the worm in the operation of extracting it. The most terrible of all the diseases of this climate is the Elephantsiasis. The cicuta, mercury, and tar-water, were unsuccessfully tried in this complaint: the greatest benefit was derived from whey made
made of cow's milk. To the alternation of scorching heat and chilling cold, thin cloathins, the use of fragrant purifying water for four months, and other such causes, these diseases may be partly, if not wholly, ascribed. The small-pox was introduced into Abyssinia at the time of the siege of Mecca, about the year 356, and the Abyssinian army was the first victim to it. The diseases and other inconveniences to which the Abyssinians are subject from the nature of their climate, are in some degree counterbalanced by substantial advantages, if they would avail themselves of them by their industry and activity. Their soil, though in many places thinly spread, is rendered fertile and productive by their rains and rivers. Wherever it can be tilled and well watered, it yields very large crops of wheat, barley, millet, and other grain. The inhabitants have two and often three harvests in the year; and where they have a supply of water, they may sow in all seasons; many of their trees and plants retain their verdure, and yield fruit or flowers throughout the year; the well side of a tree blossoms first, and bears fruit, then the south side, next the north side, and last of all the east side goes through the same process towards the beginning of the rainy season. Their rivers abound with various kinds of fish; and their pâturages are covered with flocks and herds; and yet for want of application and exertion, notwithstanding the almost spontaneous productions of nature which their country affords them, they are in general poor and wretched. Though they have plenty of wheat, and some of excellent quality, the chief grain they use is that called Teff. They have grafs in abundance, but they neglect to lay hay of it; and therefore they are obliged to supply this defect by feeding their cattle with barley, or some other grain. Notwithstanding the plenty, and frequent return of their crops, they are sometimes reduced almost to famine, either by the devastations of the locusts or grasshoppers, which infest the country, or by the more destructive ravages of their own armies, and those of their enemies. They cultivate the vine, peach, pomegranate, sugar-cane, almonds, citrons, and oranges; and they have many roots and herbs, which grow spontaneously; and their soil, if properly managed, would produce many more. However, they make little wine; but content themselves with the liquor which they draw from the sugar-cane, and their honey, which is excellent and abundant. They have also the coffee-tree, and a plant called Ensete, which produces an edible nourishing fruit. The country also produces many other plants and fruits, that are adapted both for domestic and medicinal use: such as the Kolquall, Papyrus, Wanzey, Balesian, Wocinioos, Cussu, Sessa, Ergott, Sena, Cardamom, and Ginger. Here is also plenty of cotton, which grows on shrubs, like the Indian. Flowers in a rich variety adorn the banks of their rivers, and encircle their houses; some of which are common with us, and others unknown in Europe. Their forests likewise abound with trees of various descriptions, particularly the Rack, Baoob, Cedars, Sycomore, &c. This country produces a great number of animals, both domestic and wild. Amongst the former we may enumerate hores, some of which are of a very fine breed, mules, asses, camels, dromedaries, oxen, cows, sheep, and goats; and these constitute the principal wealth of the inhabitants. Amongst the wild animals we may reckon the antelope, the buffalo, the wild boar, the jackall, the elephant, the rhinoceros, the lion, the leopard, the hyena, the lynx, apes and baboons, which are very destructive to the fields of millet, as well as the common rats; the zecora or wild mule, and the wild ass; the jerboa, the fennec, ahikoko, hare, &c. The hare, as well as the wild boar, is deemed unclean, and not used as food. To the amphibious kind we may refer the crocodile and hippopotamus, and the water-lizard, called Anguilla by the natives, and by the Italians candiobellus. Of the vast variety of fish with which their lakes and rivers teem, we shall only mention the Torpedo and the Eel. Amongst the birds, we might enumerate the eagle, hawk, and many of the vulture kind; the ostrich, the Stork, the wader, and many other species of pigeons which are birds of passage, the Eremoe, the Abou-Hannes, the Moroe, or honey bird, &c. The swallows that are known in Europe, appear in plicate there when they take their flight from hence. In the island of Masraf, they lighted, and turned two days, and then proceeded with moon-lights nights to the south-west. Mr. Bruce saw no sparrows, murgges, nor bats; nor many water-fowl, nor any geese, except the golden goos or geese of the Nile, which is common in every part of Africa; but there are pigeons in the marshes. The Locusts of this country are very destructive; they have also a species of ants, that are injurious; but from their bees they derive a rich supply. Of their vipers and serpents we shall take notice under the articles Cerastes and Bota. For a peculiar fly, see Tsaltysalla.

The inhabitants of Abyssinia are Chaldaeans, Jews, Mahometans, and Pagans. The Chaldaeans are the of the Abyssinian church, of whom we shall give some account in the next article.—The Jews have been settled in this country from time immemorial. Of these some have been voluntary proselytes to christianity; others have been compelled to embrace the profession of it, in order to avoid persecution, and to enjoy the benefits of manufacture and commerce; and those that remain Jews have, for the most part, forced to reside in the inaccessible and mountainous parts of the country; and even here they retain the ancient distinction of a race, and Talmudists, with invincible pertinacity. Besides these two sects, there is a third sort of them, (says Babo, i. 1. c. 14. p. 73.) who inhabit the Abyssinian frontiers, between them and the Caffres, who dwell along the Nile. These are supposed to be descended either from those whom the kings of Assyria and Babylon carried away captive, or from those who were dispersed over the world, or were sold by Titus Vespuian, after the destruction of Jerusalem. They were never incorporated with the original Jews that came hither, as tradition says, with Menileck, the son of Solomon, but were looked upon as aliens, being called Salana, &c. Strangers or exiles. They retain their Hebrew bible in the corrupt Talmudic dialect, and their synagogue-worship. The Mahometans are reckoned to amount to about one third part of the inhabitants of Abyssinia, and are every where intermixed with the Christians. Some of them apply to agriculture; but the richest and most prosperous are the factors, who, since the Abyssinians have been deprived of their sea-ports on the Red Sea by the Turks, have, by favour of the Muffulmans, engrossed that trade very much to themselves. The Pagans are chiefly the Gallas; besides some others who are dispersed through several of the provinces of the Abyssinian empire. Amidst this variety of nations, there must be sup¬posed a corresponding variety of language, disposition, customs, and government. The Jews speak a kind of corrupt Hebrew. The Moors use their own Arabic in an impure state. The dialect of the court is that of Amhara; that of Tigre, however, approaches near to the old Ethiopic, which is called Lakhone Gezz, or the learned language, and is still used, not only in all their literary and religious books, but also in the king's letters patent, and all their records. See specimens in Bruce's Travels, vol. i. p. 424.
With regard to arts and sciences, and general literature, the Abyssinians are commonly very uninformed and likely to continue so, not only from the form of their government and natural indolence, but as long as they are in a great degree secluded from intercourse with nations that are better instructed than themselves.

As to their persons, the Abyssinians are, in general, tall and well made; their features are duly proportioned, their eyes large, and of a sparkling black colour, their noses rather high than flat, their lips small, and their teeth extremely white and handsome. With respect to their natural temper, they are said to be good-humoured, mild, and pliable; unless we except those of Tigre, who, according to the accounts of the Jesuits, not indeed always to be credited, are of a fickle, cruel, treacherous, and vindictive disposition. In their common conduct, they are sober and temperate. They have both a capacity, and an inclination for acquiring knowledge, but have hitherto wanted the necessary means. To religion, or rather to superstition and ceremonial observances, they are much inclined, and difference to their priests is considered by them as one of their first duties. But inured as they are to war and scenes of blood, and to feeding on raw, and even living flesh, they cannot avoid contracting an odious temper, and remaining in a state of barbarity.

The drefs of persons of quality, is a long fine veil either of silk or cotton, tied about the middle with a rich eft. The common people have only a pair of cotton drawers, and a kind of leaf, or piece of the same linen with which they cover the rest of their body. In some parts of the country, more especially near the coast, and in the adjacent provinces, men and women have no kind of covering. Indeed, their drefs is suited to the climate, so that the cloth which covers their bodies, and their drawers, are made fo wide and long, as to admit as much air as possible. The habit of the women, particularly of the superior classes, is formed of the richest silks, garnished, according to their rank, with trinkets and jewels, images, and relics of various kinds. They are allowed to appear in public, and to converse freely with the men, without any of those restrictions to which the Turkish women are commonly subject. The women of superior condition are not very guarded in their conduct, but those of inferior rank are more faithful to their husbands; and they also submit to the meaner and more laborious offices of domestic life. It is their business to grind corn for the family, which they perform daily by means of hand-mills. Every kind of intercourse (says Mr. Bruce, vol. iii. p. 304.) is permitted with absolute freedom. In this particular they resemble the Cynics of old, of whom it was said: "Omnis "ese ad Bucebum et Venerem pertinuens in publico facere." They bear children, and are delivered with little pain and inconveniency. Although we read from the Jesuits, continues this author, a great deal about marriage and polygamy, yet there is nothing which may be ascer ded more truly, than that there is no such thing as marriage in Abyssinia, unless it be that which is contracted by mutual consent, without other form, subsisting only till dissolved by dissent of one or other, and to be renewed or repeated as often as it is agreeable to both parties; who, when they please, cohabit together as man and wife, after having been divorced, and had children by others, or whether they have been married, or had children by others or not. Upon separation they divide the children. The eldest son falls to the mother's first choice, and the eldest daughter to the father. If, after the first election, the remaining number be unequal, the rest are divided by lot. There is no such distinction as legitimate and illegitimate children from the king to the beggar. The king in his marriage uses no other ceremony than this: he feinds an Azag, or officer, to the house where the lady lives, who announces to her, that it is the king's pleasure she should instantly remove to the palace. She then dresses herself in the beld manner, and obeys. From this time an apartment is assigned her in the palace, and a house is given to her wherever else she chooses. When he makes her Itegh, the form seems to be the nearest resemblance to marriage: for, whether it be in the court, or in the camp, he orders one of his judges to pronounce in his presence, that he, the king, has chosen his hand-maid, naming her, for his queen; upon which the crown is put upon her head; but she is not anointed. Whatever be the forms of marriage in this country, and such are entered into at a very early period, when the males are ten, and the females younger; polygamy is allowed, divorces frequently occur, and adultery is compensated by an easy fine. Their funerals are attended with many superstitious ceremonies. The relations, friends, and a number of hired mourners, bewail the dead for many days together, with shrieks and lamentations, clapping of hands, limiting their faces and breasts, and uttering a variety of affecting expressions in their most dejected tones. They express their concern at hearing of the death of a relation or friend, not only by violent exclamations, but by throwing themselves on the ground with such force as to do themselves great injury. Whenever a near relation dies, every woman in Abyssinia, with the nail of her little finger, which the leaves long on purpose, cuts the skin of both her temples, about the size of a farise; and, therefore, you see a wound, or scar, on every fair face in the country; and in the dry season, when the camp is out, from the loss of friends, they are seldom allowed to heal till peace and the army return with the rains.

The food of the Abyssinians is plain and coarse. Their bread, which is indifferently prepared, of wheat, peas, millet, teff, or any other grain, is made into flat cakes or apas, which serve for dishes, plates, and spoons, and even for napkins and table-cloths. They wash their hands before they sit down to their meals, and this is the more necessary, as they touch every thing they eat. The rich have their victuals cut for them, and conveyed to their mouths by pages, who attend them. All their sauces are rich, greasy, and highly seasoned. They never drink till they have finished their meals, alleging an old rule, that you must plant first and then water. When the tables are cleared, they indulge themselves freely in circulating the gafs. The common liquor is hydromel, made of five or six parts of water to one of honey, with a handful or two of parched barley meal, which causes it to ferment; to which they add some chips of a wood, called fardo, in order to take off the nauseous taste of the honey, and to make it palatable and wholesome. At a feast, which Mr. Bruce attended, there was excellent red wine, brought from Karoota, which is the wine country, good new brandy, hydromel, and a kind of beer, called honza; both the last of which were fermented with herbs or leaves of trees, and thus made very heady and intoxicating. The Abyssinians neither eat nor drink with strangers; and they break, or purify, every vessel which has been used by them. This custom they seem to have derived from the Egyptians. The Abyssinians eat their flesh raw; and they have a method of obtaining it, which at the first report seems to be hardly credible; but, upon further enquiry, is an undoubted fact. In the neighbourhood of Axum, Mr. Bruce met with some travellers, who were driving a cow before them. He afterwards found that they cut aches from the higher part of the buttock; they then closed the wound by drawing the skin over it, and applied to it a cement of clay. They then drove the animal before them, in order to supply them and their companions.
panions with another meal. At their feasts they have a bull or cow, one or more, according to the number of guests, which are tied at the door of the house in which they are assembled. After letting out a few drops of blood from the dewlap under the throat, they cut through the skin on each side of the spine, and stripping off the hide of the animal half way down the ribs, and as far as the buttock, they cut out the solid flesh from the buttocks in square pieces, and the roasting of the animal, during this savage operation, is a signal for the guests to feast themselves at table. These pieces are served up on round cakes of unleavened bread made of teff. Three or four of these cakes of a whitish flour are placed uppermost, and designed for food; and four or five of a blacker kind are under the others, and serve the maker to wipe his fingers upon, and afterwards the servant cuts them as bread at his dinner. As no perfunctory fashion feeds himself, or touches his own meat, the women take the flesh, while the motion of the fibres is distinctly seen, cut it into small pieces, well pepper them, and wrap them up in the teff bread, like so many cartridges. In this form they are put into the mouths of the guests, who, like birds fed by their dams, are opening their mouths to receive the morsels that are ready so fast as they can be prepared for them. The females, after having thus unfurled the male guests, eat till they are satisfied, and then all drink together. The victims is full bleeding, writhing, and roaring at the door. The animal has died to death, the cannibals tear the remaining flesh from the thighs with their teeth like dogs. Such, in brief, is the description of an Abyssinian feast. For a fuller account, see Bruce's Travels, vol. iii. p. 302, &c.

The offering of meat and drink in Abyssinia, is an assurance that your life is not in danger; and it is also the constant practice to wash the feet of those that come from Cairo, who are understood to have been pilgrims at Jerusalem. Many of the customs in Abyssinia resemble those of the ancient Persians and Egyptians. For particular instances, we refer to Bruce's Travels, vol. iii. p. 268—294.

The capital punishments in Abyssinia are the crose, hanging, flaying alive, stoning to death, and plucking out of the eyes. The dead bodies of criminals slain for treason, murder, and violence on the highway at certain times, are seldom buried. The streets of Gondar are strewn with pieces of their dead carcases, which bring the wild beasts, and particularly the hyenas, in multitudes into the city as soon as it becomes dark, so that it is hardly possible to walk about with safety in the night; and the dogs bring pieces of human bodies into the houses and yards that may devour them in greater security.

The Abyssinians have few manufactures, though their country produces, or is capable of producing, ample materials for them. Before the discovery of the Cape of Good Hope, and before the Turks took possession of the ports of the Red Sea, there was a considerable intercourse of a commercial kind between Abyssinia with its adjacent provinces and various parts of Arabia and of India. Mahom was then a harbour of great repute, and had a large quantity of exports brought to it from an extensive tract of mountainous country behind it, in all ages very inoffensive, and almost inaccessible to strangers. Gold and ivory, elephants, and buffaloes' hides; and, above all, slaves, of much greater value, made the principal articles of exportation from this port. There is still a considerable trade carried on from this place; but the hand of power restrains and discourages every exertion, and the interference of it renders every kind of property insecure. The goods imported from the Arabian side are blue cotton, Sumat cloths, and cochineal ditto, fine cloth from different markets in India, cotton unpin in bales, Venetian beads, crystal, drinking and looking glasses, and crude antimony. Old copper is also a gainful article, and imported in large quantities. To the westward of Gondar they wear bracelets of it; and near the country of Gonga and Guba it has been fold, weight for weight with gold. The Banians were once the principal merchants of this port; but their number is now reduced to fix, and they scarcely gain a sufficiency, as silversmiths, by making ear-rings, and other ornaments for the women on the continent, and alloying of gold. The same coin is current here as on the Arabian side, and it is valued by the Venetian seigniory. But glass-beads, called Contarins, of all kinds and colours, perfect and broken, pass for small money, and are called, in their language, Borjooke. The Venetian seigniory is = 24 patakas; the pataka, or imperial dollar= 22 hare or dahab; the hare = 4 dneys; or 120 grains of beads; the dney = 10 kibers; and the kiber = 3 borjooke, or grains. They have no gold in Abyssinia; and in lieu of small money, they frequently make use of rock salt as white as snow, and as hard as bone. This salt is also applied to the same purposes as common salt. With this mineral salt they purchase pepper, fipes, and silk stuffs, which are brought to them by the Indians in their ports on the Red Sea. Cardamoms, ginger, aloes, myrrh, califs, cevent, ebony-wood, ivory, wax, honey, cotton, and linen of various sorts and colours, may be procured from Abyssinia; to which may be added, sugar, hemp, flax, and excellent wines, if they had the art and inductry to prepare them. The merchanides above specified are more for foreign than for inland trade. The emeralds of this country have been estimated at a high value. Their domestic commerce consists chiefly in fite, honey, buckwheat, grey-peas, citrons, oranges, lemons, and other provisions, with fruits and herbage necessary for the support of life. Antimony, large needles, goat skins, earfe feathers, razors, and shears for fleskng hie, as well as bugles and beads, are articles of barter in several of the provinces. Those places which the Abyssinian merchants most frequent are Arabia Felix and the Indies, particularly Goa, Cambay, Bengal, and Sumatra. With regard to their ports on the Red Sea, to which foreign merchants commonly resort, the most considerable are those of Suakim, Jidda, Mochala, Meheja, Massau, Suez, Azar, and Meche. The trade of the Abyssinians by land is incalculable. There are, however, bands of them who arrive yearly in Egypt, particularly at Cairo, laden with gold-dollor, which they bring to barter for the merchandizes of that country, or of Europe. Thee catttis, or caravans, formed of a few persons who associate for their mutual safety, are commonly three or four months in their route, travelling fords and mountains, in order to exchange their gold for necessaries for their families, and return immediately with the greatest part of their merchandise on their backs. One of the principal branches of the Abyssinian commerce is that of their slaves, who are highly esteemed in India and Arabia; and who, entruced by the merchandizes, as their factors, and found worthy of confidence, obtain their liberty and a suitable recompence.

The government of Abyssinia has been always monarchical and despotic, and it has exercised an absolute dominion over the lives, liberties, and fortunes of its subjects, and uncontrollable authority in all matters civil and as well as civil. This empire has ever been delinquent of written laws to restrain the royal power, or to secure the property and privileges of the subject; so that the will of the foreign is the universal law. The princes of Abyssinia claim descent from Menilek, the son of Solomon, by the queen
of Sheba. Accordingly it is maintained by many learned men, and in conformity to the Abyssinian records, of which Mr. Bruce has availed himself, that Sheba, or rather Saba, Azab, or Azaba, signifying South, was the same country with Abyssinia, whatever might have been its extent; and that it was the kingdom of queen Candace, whose queen or prime minister, came to worship at Jerusalem, and who, on his return homewards, was baptized by Philip the deacon, and from whom the Abyssinian acknowledge they afterwards received the gospel. See Acts viii. 27—38. This country, as Pliny (l. vi. c. 29.), and Strabo, (l. xvi. c. 12. p. 1116. 1175.) was commonly governed by queens; and, it is said, that Candace was a name common to them all, as Pharaoh was to the kings of Egypt; the term Candace importing their sovereign authority. The queen of Sheba or Saba, having heard of Solomon's fame, determined to pay him a visit at Jerusalem. She was there converted, as the Abyssinians say, from heathenism to the Jewish religion, and had a son by Solomon, who was named Menikek. With this son she returned to her own country, and after some time sent him back to Jerusalem to be instructed by his father. Having been anointed and crowned king of Ethiopia in the temple of Jerusalem; and having also, at his inauguration, assumed the name of David, he returned to Azab with a colony of Jews, among whom were many learned doctors of the law, and particularly one of each tribe, from whom the present Umbras, or supreme judges, three of whom always attend the king, are thought to be descended. Azarias, the son of Zakod, the priest, was one of the number, and he brought with him a Hebrew copy of the law, which was committed to his custody as high priest, and which was burnt with the church of Axum in the Moorish war of Adel. By the last act of the queen of Saba's reign, she settled the mode of succession in her country for the future; enacting, 1st, That the crown should be hereditary in the family of Solomon for ever; 2dly, That, after her, no woman should be capable of wearing that crown, or being queen, but that it should descend to the heir-male, however distant; and that these two articles should be considered as fundamental and immutable laws of the kingdom; and 3dly, That the heirs-male of the royal house should always be sent prisoners to a high mountain, where they were to continue till their death, or till the succession should open to them. The custom, however, of having women for sovereigns prevailed among the neighbouring kingdoms till the last century, and may possibly prevail in some of them to this day. It obtained in Nubia, and the kingdom of Meroe, till the time of Augustus, when Petronius, his lieutenant, subdued the country, and took and destroyed Napata, the residence of queen Candace; and this queen, Mr. Bruce (v. i. p. 475.) supposes, was succeeded by the Candace above mentioned. Whatever was the origin of the last regulation, it seems to have been necessary in order to prevent the confusion that must have arisen from various claimants, in a country where polygamy was allowed, and where the heirs to it must have been numerous; as the crown was to be hereditary in one family, but elective as to the person. Whilst they are confined in a good climate, on a high mountain, they are taught merely to read and write, and the state allows to the amount of 20,000 dollars for their maintenance. However, they are often severely treated, and in times of tumult, put to death upon the slightest misinformation. It is another rule of the society in Abyssinia, that no person that is mainued shall inherit the crown. The queen of Saba having established the laws above recited, and reigned forty years, died in the year 986 before Christ; and was succeeded by her son Menlikek, or Mendechech, i. e. Another self; whose policy, according to the annals of Abyssinia, have ever since reigned. The device of these kings is a lion passant, proper upon a field gules, and their motto, "Mo Antuifs an Niselt "Solomon am Nigade Jada," i. e. "The lion of the race of Solomon and tribe of Judah hath overcome." Instead of the lion passant, the Portuguese missionaries introduced a lion rampant, in order, as it is supposed, to put a cross into the paw of this Jewish lion; but the lion passant is restored. In virtue of this noble device, the Abyssinian monarchs assume the title of Nagath, and are always addressed either by that of Naguth Naqadth, king of kings, or by that of Natzeghe, equivalent to the French Sire. They are approached with adoration; when seated in council, they are conceded; they are attended by a splendid retinue; their camp is extensive and magnificent, and they wear a very rich and costly crown. The imperial revenue chiefly arises from the four following sources: the tribute paid by those provinces which have gold mines, or which trade with the Caffres and other neighbouring nations, which amounts to about 5 or 6000 ounces per annum; the second source of revenue is, the sale of all the great places in the empire, the annual tax on holding them and their appendages, the amount of which from two provinces, one the largest, and the other the richest, is about 75,000 French livres; the third source is, a tenth, levied every third year, upon all the cattle in the empire: the fourth source is, a duty laid upon every loaf of cotton cloth, which, if it belongs to a Christian, pays one piece of cloth, and if to a Mahometan, a piece of eight per annum. This revenue, the whole amount of which is not easily estimated, falls far short of what might be expected from an empire of which the sovereign is the sole proprietor and disposer.

The military force of Abyssinia has been greatly exaggerated. Mr. Bruce does not imagine that any king of this country ever commanded 40,000 effective men at any time, or upon any cause whatever, exclusively of his household troops, which are about 8000 infantry; 2000 of these last carry firelocks, and supply the place of archers; bows having been laid aside for near a hundred years, and being now used only by the Waato Shangalla, and some other inconsiderable barbarous nations. As they are in a state of almost continual war, either among themselves, or with their neighbours, the face of the country is strewn with dead bodies; and as they bury neither their friends nor enemies, and their beasts of burden are perpetually dying under the load of baggage which they carry, the army is followed by an immense number of birds and beasts of prey, who devour the putrefying carcasses when scattered over the ground; and the surrounding trees are covered with them; and they form a kind of dark canopy over the marching army.

The Abyssinians in computing time, have continued the use of the solar year. Thirty days constitute their month, to which they add five days and a quarter, and thus they complete their year. The five days are added to the month of August, and to every fourth year they add a sixth day. They begin their year with the 29th or 30th of August, i. e. the kalends of September; the 29th of August being the first of their month Maecaron. The common epoch which the Abyssinians use is from the creation of the world, and they reckon 5500 years from the creation to the birth of Christ, rejecting the odd eight years of the Greeks, who make this period 5528 years. They have also many other epochs, such as from the council of Nice and Ephesus, in their ecclesiastical computations they make use of the golden number and epact. The first use of epacts amongst them was not earlier, according to Scaliger, than the time of Diosleian; but Mr. Bruce observes, [vol. iii. p. 352.] that this
this is contrary to the positive evidence of AbySSiAn hiStOry, which says expressly, that the ephph was invented by Demetrius of Alexandria. this Demetrius was the 12th patriarch of Alexandria, and elected about the 190th year of Christ, or in the reign of Severus, and consequently long before the time of DioCleSian. The AbySSiANS have another mode of computing time, that is peculiar to themselves. They read the whole of the evangelists, in order, every year in their churches; and when they speak of an event, they write or say, it happened in the days of Matthew; that is, in the first quarter of the year, whilst they were reading the gospel of St. Matthew in their churches. They compute the time of the day in a very arbitrary manner. The twilight being very short, is selected for the beginning of their day; this they call Nagg, which comprehends the duration of twilight. Mefet expresses the moment when the evening twilight begins. Mid-day is called Kater, which signifies culmination. All the other parts of time they describe, in conversation, by pointing at the place in the heavens where the sun was, when the event, which they are describing, happened. After all, nothing can be more inaccurate than the AbySSiAN calculations. This is a circumstance which renders the historical records of AbySSiAn very confusTed and indeterminate. Besides, the earlier part of their history is, on account of its remoteness, involved in a considerable degree of obscurity and uncertainty; and in later ages, the access into this country was difficult, and the intercourse with it very rare and limited. For that kind of knowledge of this country, in modern times, which is attended with any degree of certainty, we are first indebted to the discoveries of the PortuGuese. But the zeal of their missionaries to convert the AbySSiANS to the Catholic faith, involved them in difficulties and persecution, and barred the access of other Europeans, for a considerable time, into this country. The first history of AbySSiAn was written by Alvarez, who accompanied an ambasSador sent thither by Emanuel king of Portugal; and it was printed at Lisbon in 1546. It is preserved in Purchas’s collection. Father Bermudes, who also visited the country, has given some account of it, intermixed with much fable. His relation was printed in 1565. Father Pais, who resided there for a considerable time, and died there in 1622, wrote an account, which extends from 1556 to his death. Father Almeida, who travelled through the inland provinces; Father Mendes, who resided there ten years; and Father Jerome Lobo, who arrived in AbySSiAn in 1624, resided there nine years, and travelled above 38,000 miles in this empire, and whose history was published by M. le Grand at Paris 1738, have given distinct details of the provinces, produce, customs, and inhabitants of AbySSiAn. From these several sources, and the letters of the AbySSiAN missionaries to the college of Jesuits at Lisbon, Father Baltazar Tellez derived materials for his general history, which was published in the PortuGuese language in 1660. Ponce, a physician, who was sent by the French confus at Cairo into AbySSiAn, to cure the emperor of an obStinate diseas, in 1698, published an account of the religion, laws, and customs of the AbySSiANS; but his personal observation was very restricted, and of course he must have depended very much upon the report of those with whom he conversed. The Jesuit writers have concurred to degrade and vilify him without sufficient reason; but his account is in general just and credible, and is held in good estimation. The history of Ludolph, in folio, is the most comprehensive of any that had been written at his time. It is chiefly compiled from the Portuguese authors above mentioned; though he relies too implicitly in many instances on the authority of the Abbot Gregory, whose learning, capa-
In consequence of the discoveries they had made, they had occasions to perform their commercial intercourse with other provinces of the continent. They found in a nation that existed in their neighborhood, and which they had been distinguished by the high opinion of SHEPHERDS. In this employment they generally advanced to great wealth and power. The number increased, and the extent of their territory was enlarged. Whilst they extended themselves along the Indian ocean, and afterwards along the Red Sea, for the convenience of trade; the principal seat of their residence and power was the land part of Africa, between the northern tropic and the mountains of Abyssinia, a country now called Ethiopia. This country reaches from Mafubah along the coast to Suakim; then turning westward, continues in that direction, having the Nile on the south, the tropic of Cancer on the north, with the deserts of Selima and Libya on the west. The next district belonging to these people was Meros, now called Abybara. A third district, now called Dorkin, is a vast plain lying between the river March on the east, and Abybara on the west. But the most noble and warlike of the Shepherds were those who possessed the mountains of Habah, reaching from the vicinity of Mafubah to Suakim, which district they still inhabit. The building of Carthage increased their employment as carriers in the intercourse of commerce, and of course their power. The eminence of the Shepherds to the Egyptians originated principally in religious differences; for the latter worshipped the animals which the former used as food; and the Shepherds worshipped the heavenly bodies, whilst the Egyptians practiced the grosser kind of idolatry.

Besides these Cushites and Shepherds, who were the first settlers in Abyssinia, the above cited Chronicle of Axum mentions, among other particulars, that about the year 1400 before Christ, it was taken possession of by a variety of people, speaking different languages, who, as they were in friendship with the Agaazi, or Shepherds, possessing the high country of Tigré, came and laid down beneath them in a peaceable manner, each occupying the lands that were before him. This settlement the Chronicle calls Angabe, the entry and establishment of these nations, which finished the peopling of Abyssinia. Tradition further says, that they came from Palestine. Many approved writers are of opinion, that some of the early descendants of Cuth, first settled in the land bordering on the eastern side of the Red Sea, moving gradually from thence to the southern extremity of Arabia; and afterwards, by means of the easy passage over the straits of Babernand, transplanted themselves into Ethiopia. This migration, according to Eusebius, happened whilst the Israelites were in Egypt; but Syncellus places it in the time of the judges. These Arabian Cushites were called Aboseni, and formed a great part of the Sabans or Homerites; and the Ethiopians were distinguished by the same name, agreed in many particulars with the others, and were believed by most of the African nations in Joseph’s time, to have had the same origin. Of these new settlers, Mr. Bruce (vol. i. p. 599.) gives a somewhat different account. When Joshua had pursued the Jordan, and destroyed Jericho, a part feized the whole people of Syria and Palestine. These petty states, many in number, and diversified by language, fought for Safety from the conqueror by flight or emigration. Having already carried on a commercial intercourse with the Shepherds of Abyssinia and Abybara, they directed their views to them for protection, and obtained settlements among, or near them. The curfe of Canaan, (Gen. ix. 25, 26, 27.) says Mr. Bruce, seems to have followed them, as they have obtained no principality, but served the kings of the Agaazi, or Shepherds, and so they still continue. The first and most considerable of these nations listed in Amhara; the second were the Aqew of Damot, one of the southern provinces of Abyssinia; and the third were the Aqew of Lalla, with a separate language, living in caves, and paying nearly the same worship to the Seris or Tartass, that those of Damot pay to the Nile; the fourth is a nation near Damot, called Gatif, the situation of the fifth is not precisely ascertained, unless it be intermixed with the Galula and Falasha. From this recital, we may perceive the propriety of the appellation Habes or Cawerass, denoting separate nations settled together, as affording the most satisfactory etymology of Abyssinia. The inhabitants who possessed Abyssinia from its southern boundary to the tropic of Cancer, or frontiers of Egypt, were the Cushites, a polished people, living in towns, being first Troglydotes, and having their habitations in caves. The next were the Shepherds. After they were the nations who, according to Mr. Bruce, came from Palestine. If the account we have now given of the origin of the Abyssinians be just, they might very well vie with the Egyptians, and even be deemed superior to them with respect to antiquity, since Cuth, their great ancestor, was the eldest son of Ham. They might likewise have been deemed of equal antiquity with the Arabsians, as from the kingdom of Median the Cushites penetrated both into the southern parts of the peninsula of the Arabs and Ethiopia. The communication between Egypt and Ethiopia, as well as the proximity of blood of Cuth and Mizrâm, introduced that similitude of laws and manners that is observable among their respective inhabitants. The Ethiopians, or Abyssinians, account, for this mutual resemblance, by ascertaining, that Egypt, when recovered from the Nile, and made habitable, was first peopled by colonies that migrated out of their country, and they again were civilized by the Egyptians. Mr. Bruce endeavours to prove, that the Abyssinians in ancient times were not only the most learned people in the world, but that they spake the original language, and were the inventors of writing. How they, as well as the Egyptians, came to lose this character, and to sink into their present state of degeneracy and barbarity, is not easy to explain. But the nature of their respective governments will serve in some measure to resolve the difficulty. According to some authors, Moses ridiculed the progress of the Ethiopians from Thebais into the Lower Egypt, and drove them back into their capital Meros, which, being surrounded by three rivers, the Nile, Aftapus, and Afibors, was deemed impregnable. This city, however, was betrayed by a young woman, who fell in love with Moses, and delivered it up to him on condition of his marrying her. He then ravaged the country, and having reduced the inhabitants to such a state that they were incapable of any farther hostile attempts for a long time, he returned in triumph to Egypt, after an absence of ten years. Without attempting to fill up the chain that occurs in the history of Abyssinia from this period to the time of Solomon, and without recurring again to the story of the queen of Sheba, and her son Menelik, from whom the kings of Abyssinia derive their descent, we shall proceed to observe, that the Ethiopians, or Abyssinians, after the ascension of Menelik, were invaded by Seda, or Sefolanis, who plundered their main temple at Saba, and probably occasioned the removal of the imperial seat to Tigré, Ethiopia, or at least a considerable part of it, became subject to this monarch. The Ethiopians, according to Sir Isaac Newton, drowned the successor of Seda in the Nile, and feized upon Egypt, and obtained Libya in connection with it. However, they were defeated by Aba king of Judah. Upon this the people of the Lower Egypt revolted, and obliged
obliged Memnon, supposed to be the same with Menes and Amenophis, to retire hitherto to Memphis, and then to Ethiopia. In about thirteen years he returned, with his son Rameses, at the head of a large army, and compelled the Canaanitish forces to abandon the Lower Egypt; and this event is denominated by the Egyptian writers by the second expedition of the Shepherds. Sir Isaac Newton supposes, that the Memon just mentioned built, or at least fortified Memphis, in order to prevent the Egyptians from penetrating into Ethiopia, and that he died at a very advanced age, about 90 years after the defeat of Solomon. In his time the Argonautic expedition is said to have happened. He was succeeded by Rameses; and his successor Moses ordained Memphis, and made it the capital of his empire, about two generations after the Trojan war. Cleopas, Caphrenus, Mycerinus, and his father Niocoris, succeeded one another; and in the reign of Afyphus, the successor of Nicoris, Ethiopia and Afyphus revolted from Egypt, which being partitioned into several small kingdoms, was soon subdued by Sabazon or So, the emperor of Ethiopia. This monarch, forming an alliance with Hloth, king of Israel, occasioned his revolt from the Abyssins; in consequence of which, an end was put to the kingdom of Israel by Shahmafer king of Afyphus, in the 223d year of the era of Nabonassar, and the 720th after the commencement of the Christian era. Sabazon was succeeded by Seshon, who marched with a powerful army against Sennacherib king of Afyphus, and defeated him. In the 787th year of the era of Nabonassar, Ethiopia was subdued by Elfar-Hadden king of Afyphus, who over-ran both these countries for three years, when the Ethiopians assented to their independence, which they preferred till the time of Cyrus, whose dominion, according to Xerophon, extended to Ethiopia. After his death the Ethiopians revolted; and their empire was so powerful, that Cambyses found it impracticable to penetrate into the country: though Sir Isaac Newton suggests that he subdued them about the year 225, or 224, of Nabonassar. But others are of a different opinion. Herodotus affirms, that they reduced some of the provinces contiguous to Egypt; and it appears, that the Perians proceeded as far as Cyrene; but it is not probable that they brought under subjection the whole Ethiopia Propria of the ancients, which comprehended Sennar, Abassin, and other countries. We have no account of any expedition undertaken by Alexander the Great against Ethiopia, though he was very defirous of exploring the source of the Nile. With this view Ptolemus Euergetes advanced into the country; but if he made any conquests, he did not seem to have long retained them, for nothing of importance relating to Ethiopia occurs till the days of Augustus. About this time, i.e. the year of Rome 725, Caracae, queen of Ethiopia, or rather of the kingdom of Meroe, made an irruption into the province of Thabae, and being repulsed by Petronius, was obliged to sue for peace, which, as we have already mentioned, was granted to her by Augustus. From this time the Romans conferred themselves as masters of Ethiopia. Menleck, according to the Abyssinian records, succeeded to the throne in the 96th year before Christ, and they reckon twenty-two kings from Menleck to Bazen, the eighth year of whose reign coincides with the year of the birth of Christ. But this account must be very erroneous, because each reign will amount to more than forty-four years, which is impossible. In the reign of Hiaggabalus, about the year of Christ 220, there seems to have been an intercourse between the Roman empire and the Ethiopians: and we learn from Procopius, (De Bell. Pers. i. i. c. 19) that before the reign of Dacelan, the frontiers of the Roman empire extended so far into Ethiopia, that they were not above twenty-three days journey from the capital. Nothing remarkable occurs in the history of the Ethiopians from the time of this emperor to the period of their conversion to Christianity, when event took place under Abraha and Azizlada, or as they are also called Abra and Absa, who are considered by Mr. Bruce as the prince, and by others as joint sovereigns, about 377 or 378 after Christ. Frumentius was consecrated bishop of Abra by St. Athanasius, and deputed by him to propagate the Christian religion in Ethiopia. Of this Frumentius it is said, that whilst he was young, he accompanied Irenaus, philosopher of Tyre, who, in a voyage on the Red Sea to India, was cast away on the coast of Abyssinia. Menelaus was slain by the natives, but Frumentius, who had been generally educated, was conducted to Axum, where his son then refixed. Here he was enthralled by the queen with the education of the young prince; and having instructed him in various parts of learning, and improved his mind with a veneration for the Christian religion, he found him disposed to embrace Christianity on his return from Alexander's discharge of the commission entrusted with by him by Athanasius. The greatest part of Abyssinia followed the example of this prince, and the church of Ethiopia continued in unity with this bishop to the time of his death. When Constantinople, the emperor embraced Arianism, an attempt was made to depose Frumentius, because he refused to sanction it with his example and authority. About this time there was an expedition into Africa: Felix produced, what the Arabian writers, and Salome in the koran, have called the War of the Elephant. The version was this: the temple of Mecca had been held in high veneration for 1,000 years, because, as the Arabs say, Adam, when expelled from Paradise, pitched his tent upon this spot; and they also flew a black stone, which Jacob reposed when he saw the vision, mentioned Genesis xxvii. 12. But Mr. Bruce thinks it to be much more probable, that this temple was built by Sesostris, and that he was shipwrecked here under the title of Othris. This temple, venerated by neighbouring nations, was made the emporium of the trade between India and Africa, but Abraha desiring to render it more convenient for his dominions, built a very large church or temple in the country of the Horctes, and nearer the Indian ocean, and extended to it all the privileges belonging to the pagan temple of Mecca. A tribe of Arabs, called Beni Koreifi, who had the care of the Carba at Mecca, alarmed by the prospect of having their temple cursed, entered Abraha's temple, burned every part of it that could be consumed, and polluted the rest by defiling it with human excrements. This insult exasperated Abraha, who, mounted upon a white elephant at the head of a large army, resolved to destroy the temple of Mecca. This temple, however, was miraculously preserved, according to the Arabian writers; but the more probable account is, that the Abyssinian army fell a sacrifice to the small-pox and measles, with which they were infected at this siege. This happened about the year 556. Abraha's church, near the Indian ocean, was finally destroyed in the calix of Oma. In the year 552, Julian, the Greek emperor, sent an embassy to Caleb, or Eliza, king of Abyssinia, inviting his interference in favour of the Christians in Arabia, who were severely persecuted by Phineas, a Jewish prince, and others of the same persuasion, then in possession of the country. Phineas was defeated by Arabas, an Arabian prince, before Abraha, Caleb's general, arrived at the Jewish kingdom; and were not wholly overthrown, as some of them continued till after the Hegira. To this period, or the reign of Eliza, the Arabian historians refer the War of the Elephant, and the miraculous conversion of the Ethiopian army. The commi
fistration of names will account for the difference between the Arabian and Abyssinian records; for if this Abreha was the prince who had intercourse with Abou Thaleb, Mahomet's grandfather, to whom the custody of the Caaba was committed, and who was defeated before Mecca, the smallpox was introduced among the Abyssinians about the year 524, or 100 years before the Hegira; and thus the Arabian and Abyssinian accounts may be made to correspond. Some historians have said, that the Ethiopian monarchs embraced the doctrines of Mahomet, soon after the appearance of this impostor; but this account has been considered as improbable. It is more certain, however, that Najashi, who was the Ethiopian governor of Yemen, and who was related to the royal family of Abyssinia, was professed to the Mahometan faith. On this occasion the Abyssinians left their territories in Arabia, and were forced to seek refuge on the isle of Africa, where they established several kingdoms, such as Addi, Mara, Haden, Auffs, Wypo, Tanthii, and other states, which acquired permanent power and importance. The Jews being at this time oppressed by the caliphs, sought an asylum in Abyssinia; and they contributed to augment and strengthen an independent sovereignty, which had been preferred in one family of Jews on the mountain of Samen, the royal residence having been fixed upon a high-pointed rock, called the Jews' rock. Judith, a very beautiful and intriguing queen of the Jews, had made fo strong a party, that she resolved to attempt the subversion of Christianity, and also the secession in the line of Solomon. Having mastered the royal family, she took possession of the throne, in defiance of the law of the queen of Saba; but the infant king, the only remaining prince of his race, fortunately escaped into the province of Shoa, and thus the royal family was preferred to be again restored. Judith and her descendants maintained their usurpation for more than 500 years; but no part of their history is recorded in the Abyssinian annals, except that of Lalibala, who lived at the close of the 12th, or beginning of the 13th century, and was reputed to be a saint. This secession he probably acquired from the protection which he afforded to the Christians, who, persecuted by the Sarcetians in Egypt, fled for refuge to Abyssinia. Lalibala employed them in forming various works in the solid rocks, some traces of which remain to this day; and in unsuccessful attempts to divert the Nile out of its course, so that it might no longer be the cause of the fertility of Egypt, which was then in possession of the enemies of his religion. The race of Solomon, which had been restricted to the sovereignty of Shoa, was unexpectedly restored in the person of Icon Amlac, to whom Nacueto Laab, grandchild of Lalibala, by the mediation of Tecla Haimount, a monk and native of Abyssinia, who had been ordained Abuua, and who was highly esteemed for his sanctity and patriotism, resigned the kingdom of Abyssinia. Amongst other articles of the treaty between them, one was, that no native Abyssinian should for the future be chosen Abuua; and this article between Icon Amlac and the house of Zagoué was observed for near 500 years. Icon Amlac continued to reside at Tegulat in Shoa, from his accession in 1268, and his reign lasted fifteen years. After a rapid succession of princes, Amada Sion ascended the throne in 1372. This sovereign professed Christianity, but disgraced it by his conduct. During a reign of thirty years, this prince was almost incessantly engaged in various wars with the Moors, who inhabited different provinces of Abyssinia and its vicinity; but at last, weary of war and carnage, he returned in triumph to his capital, and having never suffered defeat in any battle, he ended his days, and transmitted the crown to his son, Saiif Arrad. The only transaction that distinguishes this reign, is the relief afforded to the Coptic patriarch, whom the sultan of Egypt had thrown into prison, with a view of extorting money from him. Of Zara Jacob, whose reign commenced in 1434, and continued thirty-four years, Mr. Bruce observes, that he was regarded in Abyssinia as another Solomon, and a model of what the belt of sovereigns should be, though he was not justly entitled to this high encomium. This prince sent an embassy to the council of Florence, which formed a subject for a picture in the Vatican, and he obtained from the pope a convent at Rome for the use of the Abyssinians. From this period a party was formed in favour of the church of Rome; and this belt of sovereigns was the first who introduced religious persecution into his dominions. Although the established religion in Abyssinia was that of the Greek church, many different superstitions prevailed in every part of the country. An accusation having been brought against some families for worshipping the cow and the serpent, they were besieged by order of the king, capitaliy convicted, and executed. This severity was followed by a proclamation, declaring, that any person who did not, upon his right hand, carry an amulet, with these words, I renounce the devil for Christ our Lord, should forfeit his personal estate, and be liable to corporal punishment. Before the close of his reign persecution was suppressed, and he employed himself in repairing the churches which had fallen into decay, or which had been destroyed in various parts of the country in the wars with the Mahometans. In this reign, which commenced in 1468, the old law for confining the royal children, which had been discontinued from the reign of Judith, in the tenth century, was revived; and they were sent to the high mountain of Gezen, on the confines of Amhara and Begemder, which continued to be the state-prison till a slaughter occasioned the defection of Gezen. Bada Mariam, having ingratiated himself with his people, by clemency towards those who had been banished for various offences in the former reign, commenced a war with the Dobas, who made inroads into his country; and he also turned his arms against the kingdom of Adel; but being seized with a pain in his bowels, which occasioned his death, all his plans and enterprises terminated. About this time Henry of Portugal, a scientific and adventurous prince, formed the project of discovering a passage to India, by doubling the cape of Africa, and using of sharing with the Venetians, and others, the profits of the commerce that was carried on with that country. A plan was also conceived for penetrating into India through the interior parts of Africa. The practicability of this latter scheme was rendered probable, by the report of some monks who returned to Jerusalem and to Alexandria, and who were the subjects of a christian prince, said to be a priest, whose dominions were said to extend through the African continent from the east to the west sea. This report had been confirmed at the court of Benmo, the sovereign of the Jaffolis, on the west coast of Africa, and also at Benin, another negro country; though it was somewhat confused and precarious, in consequence of the account given by Marco Paulo, a Venetian traveller, who said that, in his travels into Tartary, he met with a christian prince, who was a priest, and who was called Presbyter, or Prelller John. The king of Portugal, however, resolved to send Peter Covillan and Alphonso de Paiva, as amouilladors to this unknown prince. The object of their mission was to explore the sources of the Indian trade, the principal markets for spice and pepper, and the channels of their conveyance to Europe; and to ascertain the country whence gold and silver were obtained, and the possibility of arriving at the East Indies by facing around the southern promontory of Africa.
Africa. Having proceeded on their journey together from Alexandria to Cairo, thence to Syria, and afterwards to Aden, a rich trading town, without the braits of Babylomandeh, they separated from one another. De Paiva soon lost his life; but Cavillon set sail for India, and having visited Calicut and Goa, and crossed the Indian ocean to inspect the mines of Sofala, returned to Aden, and then to Cairo, where he heard of the death of his companion. Here he found two Jews with letters from the king of Abyssinia, which induced him to return to Aden; whence he crossed to the dominions of that prince, whose name was Alexander, and whom he accompanied to Shoa, where the court received him. Cavillon settled in the country, became rich and powerful, and no more returned to Europe. But the intelligence he transmitted from time to time to the court of Portugal was important and useful. He described the Indian ports which he had seen, the situation and riches of the mines of Sofala, the disposition of the princes, and the wealth and populousness of the country where he dwelt; and he exhorted the king to prosecute the discovery of the passage round Africa, affirming, that the cape itself was well known in India, and accompanying his communication with a chart, which he had obtained from a Moor in India, and which exhibited the exact situation of the Cape, and the cities round the coast. Cavillon came into Abyssinia in the year 1495, and the reigning prince, Alexander, or Ilcander, to whom he was introduced, died by violence, in 1495. He was succeeded by an infant son, who reigned seven months; after which his younger brother, Naoi, was elected king by the unanimous voice of the people; and having, by his courage and prudence, delivered himself from the fear of a foreign war, he applied with diligence to reform internal abuses, and to cultivate the arts of peace. After a reign of thirteen years, he died in 1508, and was succeeded by his son David III. an infant of eleven years of age, who was set on the throne by the interell of Helena, widow of Beka Mariam. At the commencement of this reign, the Turks, with a view of sharing the profits of the trade of the country, took possession of Zeyla, a small island in the Red Sea, opposite to the coast of Adel; but their desire of possessing India diverted their views from Adel and Abyssinia. It was thought defirable, in the present situation of the country, to form an alliance with the Portuguese, and for this purpose, Matthew, an Armenian merchant, was deputed as an ambassador. The principal object of the embassy was to obtain a force sufficient to destroy the Turkish power; and, it is said, that a third part of Abyssinia was offered as an acknowledgment. During the progress of this embassy, the Turks renewed their depredations on the Abyssinian territories. David prepared to refute them; and, at length, succeeded in completely defeating and routing them. On the day in July 1516, when he obtained a decisive victory over the Moors, the island of Zeyla was taken, and the town burnt by the Portuguese fleet under Lopez Suarez de Alberguaera, who had brought back Matthew, and with him an ambassador, from Portugal. The two ambassadors, accompanied by fifteen Portuguese, set out on a very difficult and perilous journey for the emperor's court. Matthew died of an epidemic fever in the course of the journey; but the Portuguese ambassador arrived in 1520, within three miles of the Abyssinian camp. His reception was not favourable; and it was not till after a delay of five years, that the business of the embassy was completed, and he was allowed to depart for Portugal. This long intercourse between two distant nations, alarmed the Mahometan powers; and the Adelians, afflicted by the Turks, defeated the emperor in several successive battles, and over-ran the empire, plundering and burning the towns and villages, and carrying away the people for slaves. This destruction was continued till the year 1537. In the next year the affairs of Abyssinia seemed to revive, and a new embassy to Portugal was proposed. John Bermudes, one of the attendants of Rodrigo, the Portuguese ambassador, was deputed, who was invested with the ecclesiastical authority of Abuna. Being a bigot to the popish religion, he declined accepting the office, unless his ordination should be approved by the pope; which was indirectly submitting the church of Abyssinia to that of Rome; and this submission on the part of David gave the pope inexplicable pleasure, at a time when to many kingdoms in the west were revolting from his supremacy. Having in his way through Italy obtained the pope's sanction, he proceeded to Lisbon, and was acknowledged by the king as patriarch of Alexandria, Abyssinia, and of the sea; and he succeeded in obtaining the succours which he requested. When these succours arrived, they took the town of Arkeeko, killed the governor, and massacred all the people in the town whom they could find. The delay, however, had reduced the Abyssinians to great distress. A Mahometan chief had made an attack upon the rock Gethen, where the royal family had been kept, and massacred them; and David, linking under a complicity of dissuaders, died in the year 1540, and was succeeded by his son Claudius. On his accession, the Moors formed a league against him, but were defeated. Aided by the Portuguese forces, which had joined those of the empire, Claudius freed himself from all apprehension of foreign enemies; and he then directed his attention to the internal state of the country. John Bermudes, infulent in his disposition, and invested with ample ecclesiastical powers, attempted the conversion of Claudius, and inflicated that he should establish the popish religion through his dominions, as his father David had promised to do; but Claudius was invincible, and the alteration terminated in the expulsion of the catholics, and the discontinuance of all intercourse with the Europeans; and Bermudes himself was obliged to leave Abyssinia, and return to Portugal. In 1558, the pope sent a new deputation of prelates; but, though they were civilly received by Claudius, they seemed to have had little success with respect to the principal object of their mission. The thoughts of Claudius were now employed about a successor; and as he had no son, it was proposed to ransom his youngest brother, the prince Menas, who had been taken prisoner by the Moors in the time of David. This business having been settled, Claudius's premature and violent death made way for the advancement of Menas to the throne in 1559. After a short reign, embroiled by internal rebellion, and the fidgetious practices of the popish missionaries, he closed his life in 1563, and was succeeded by his son Sertza Denghial, who, after various conflicts with the Moors, and with the Gala and Falaha, two neighbouring nations, in which he was generally victorious, died in consequence of eating fish of a poisonous nature, in 1595. Before his death he nominated Za Denghial, his nephew, for his successor. The affections of his people were alienated from this prince on account of his attachment to the church of Rome, whose interest in Abyssinia had much declined, in consequence of the death of Oviedo, and the other missionaries, and through want of a fresh supply of Catholic preachers. In the year 1600, Peter Paez, or Pate, was sent on this mission. He was learned, diligent, and active. The emperor was engaged by his manners and discourses to embrace the catholic religion; he issued orders for prohibiting the observance of the Jewish Sabbath, and sent letters to pope Clement VIII. and Philip III. of Spain, requesting a supply of mechanics to instruct his people in the useful arts,
and of Jews to teach their religion. This imprudent conduct on the part of the emperor caused a rebellion among his subjects; he was proclaimed king by the Abyssinians, and was soon defeated by his own subjects, who were overpowered and dethroned. The succession was for a time disputed. At length Sobieski called to his aid Monsieur de Mazar Seguier, who was fully established in the province, and he was declared king by the bishop of the Roman Catholic religion. He addressed letters one to the pope, and the other to the king of Portugal, soliciting his assistance against the invasions of the Turks. In the mean while he defeated their people, and also a body of rebels assembled to support the claim of an impostor, who pretended to be the late emperor Jacob, that he had contended for the crown. Whilst he was establishing the religion of the empire, a new rebellion demanded his attention, and his subjects were engaged in various military expeditions. In 1616, he issued a very severe order against the Jews, whom he determined totally to exterminate. His conduct towards them was in the highest degree cruel and unjust. The consequence of his measures was the almost entire extinction of the Jewish religion, the professors of which were commanded to renounce their religion, and be baptized, under pain of death. Paz was at the same time successful and successful, in his endeavours to procreate the Abyssinian church, the Coptic church, and Socinians having received letters from the pope and the king of Spain, with assurances of such support as each of them, in his respective province, could afford him, resolved to make a formal submission to the pope, and to recognize him in his connection with the Greek church. Ambassadors were appointed to go to Europe, to communicate this intelligence, and to finish the negotiation between the pope and the Abyssinians; but these ambassadors were obliged to return; and this unpromising occurrence prevented the establishment of popery in Abyssinia. The attempts of Socinians to change the religion of the country, occasioned a variety of seditions and rebellious associations against his government; but the obdurate emperor persevered. Though the Abyssinian ambassadors had been constrained to return, many favourable accounts of the state of religion in Abyssinia had been transmitted to Europe; and new missionaries were sent under the direction of Alphonso Mendes, who arrived at Gorgora, the royal residence, in the beginning of the year 1624. Socinians, after the first audience, took an oath of submission to the pope, and the ceremony was attended with circumstances of peculiar solemnity. It was followed by a proclamation, that all priests should embrace the catholic faith on pain of death, that Lent and Easter, and the other movable feasts, should be observed according to the rules of the Roman church, and that the clergy should be reordered, the churches consecrated anew, the people re-baptized, and circumcision, polygamy, and divorce abrogated. The emperor, however, soon perceived the injurious effects of these measures, and found it necessary to relax the severity of his proceedings. He proceeded to grant an universal toleration; and having restored the Alexandrian faith, ceremonies, and worship, he resigned the crown and empire to his son Facilidas, or as he is sometimes called Yafous; and soon after his declaration for this purpose, he died, in 1625, and with him all the hopes of the Jesuits were extinguished. Facilidas was an inveterate enemy to the catholic faith, and he adopted every method in the power of suppers and seditions. He first banished and then executed his uncle Reta Chiriasses, who had been active in promoting it, expelled the European missionaries, and refilled the atter-pls of the Jesuits for introducing others. The spirit of rebellion in Abyssinia, and the neighbouring provinces, was still alive; nor could the effects of Facilidas totally beefface it. However, he left the empire at its death, in 1669, in a much more peaceful and prosperous state, than that in which it was devolved upon him by his father. He was succeeded by his son Hannibal L., who had the ability to preserve peace during his whole reign, if we except some feeble expeditions against Laith and the Shangilla; and, in 1829, his son Yafous I. ascended the throne with the approbation of the whole kingdom. This prince is said to have possessed all those abilities and dispositions which form the character of a great and a good monarch. In this reign attempts were made to revive European missions. They were occasioned by a report that, on the expulsion of the Jesuits from Abyssinia, many catholic missionaries had fled into the adjacencies of Nubia andheads, where they were grievedly oppressed by the Mahometans. The cause of these christians was espoused at Rome, and the pope dispatched a mission for their relief, under the title of the Ethiopia mission. The missionaries were instructed to penetrate as far as possible into Abyssinia, and to maintain the catholic faith as far as they were able, till an opportunity offered of converting the whole empire; and for their protection and encouragement, a convent was established at Achiin, in Upper Egypt. At the same time, Louis XIV. of France appointed six Jesuits to the same mission, and furnished them with suitable presents for the emperor and the principal nobility. The admission of these missionaries was facilitated by a dangerous ecbratic disorder, which had attacked Yafous and his son, and for which they wished to have the advice of an European physician. Maillet, the French consul at Cairo, with whom the Jesuits to have the honour of the mission, disapproved of the views of Friar Piu and Anthony, two Franciscans, who were first thought of, and recommended Charles Poncet, a Frenchman, who had been bred a chemist and apothecary, and Father Brevedent as his servant, to Hagi Ali, a Mahometan factor at Cairo, for the desired parlele. The Franciscans attempted the destruction of Poncet and his attendants; but Poncet arrived safe at Gondar on the 21st of July, 1699, and having perfectly cured his royal patient, set out on the 2d of May, 1700, on his return for Europe, and arrived in safety at Mafash. Brevedent died at Gondar soon after their arrival. An embassy on the part of the Abyssinian monarch was defeated by the interference of Maillet; but the Jesuits concerted another mission from France, and the person appointed as ambassador was M. de Roule, vice-consul at Damietta. This mission was very injudiciously conducted; the merchants at Cairo refilled it; the Franciscans obstructed it, and it terminated in the murder of the ambassador in the province of Sennar. Yafous, the emperor, had been previously affalinated, in 1704, by a conspiracy of his wife and son, Teela Haimanout, who was himself affalinated in 1706, and succeeded by his uncle Tiflis, or Theophilius. After the death of this monarch, in 1709, the king of Solomon, by the queen of Sheba, was set aside, by the influence of the conspirators who had contributed to the murder of Yafous and Teela, and a stranger, called Oultas, was seated on the Abyssinian throne. Oultas was soon deposed; and David, son of Yafous, was proclaimed king of Abyssinia, and crowned at Gondar on the 20th of January, 1714. The fightings among the Abyssinian clergy, that occurred in this reign, produced a dreadful massacre, and ended in the death of the king, who died, by poison, in 1719. He was succeeded by his brother, Bactius; and Bactius, in 1729, by his son Yafous II. His reign was disturbed by frequent seditions and rebellions; in one of which, Gondar, the capital, was set on fire, and almost entirely ruined. He died in 1735, not
not without the suspicion of having been poisoned, and was succeeded by his son Joas. The whole empire, in this reign, was divided into two powerful factions, the causes and effects of which are particularly recited by Mr. Bruce, who was witness of the confusion and tumult which they produced. In the process of this contention, Joas was assassinated; and, at his death, in 1706, Hannes, brother to the late king Bauckin, was appointed emperor. Hannes, however, being maimed by the loss of his hand, was deemed incapable of affirming the sovereignty: he was removed by poison, and his son Tecla Haimanout II. was advanced to the throne. From, and even before the accession of Joas, Michael Ras, who had been appointed Ras or Governor of Tigris, and other provinces, and who was become master of almost one half of Abyssinia, had the principal direction and influence in the government of the country. His marriage with Ozoro Edifier, a very beautiful and accomplished princess, and the widow of Mariam Barea, the most distinguished nobleman of the country, had very much augmented both his dignity and power. Hannes was established on the throne by his authority, and when he found that he was not likely to answer his purpose, he is supposed to have made way, by poison, for his successor Tecla Haimanout. This prince treated him, from the moment of his accession, with the affection and respect of a son; and this influence of Michael was very considerable in preserving the attachment and submission of his subjects, as well as in conducting the military operations of his reign. Of these Mr. Bruce has given a very minute detail, for which we must refer the reader to the 4th volume of his elaborate and comprehensive work.

Abyssinian, in Ecclesiastical History, is used as the name of a sect in the christian church, established in the empire of Abyssinia.

The Abyssinians are a branch of the Copts, or Jacobites; with whom they agree in admitting only one nature in Jesus Christ, and rejecting the council of Chalcedon: whence they are also called Monophysites, and Ethiopianians. Some learned men are of opinion, that the Abyssinians, or Ethiopians, embraced the sentiments of the Monophysites in the sixth century, in consequence of the evolutions addressed to them by the doctors of that sect who resided in Egypt. But Micheloni (Eccl. Hist. v. ii. p. 357, 360) says, it is certain that the Abyssinians, who were accustomed to receive their spiritual guide from the bishop of Alexandria, commenced Monophysites in the seventh century, if not sooner. For in that period the Arabs began themselves masters of Egypt, oppressed the Greeks, and granted to the Monophysites such a powerful protection, as enabled them to reduce under their jurisdiction almost all the churches that had been established in Egypt. The Abyssinians are, strictly speaking, a distinct body from the Copts, who comprehend those Christians who dwell in Egypt, Nubia, and the adjacent countries, and whose condition is truly deplorable. They surpass the latter considerably in numbers, power, and opulence; nor is this surprising, when it is considered that they live under the domination of a Christian emperor.

The Abyssinian church is governed by a bishop, or metropolitan, styled Abuna, and sometimes, though improperly, patriarch, sent them by the Coptic patriarch of Alexandria residing at Cairo, who is the only person that ordains priests. The first person who posessed the episcopal dignity was Frumentius, who converted the Abyssinians to Christianity in the beginning of the fourth century. Some, indeed, have supposed, that they were converted by the apostles; others have asserted, that the Eunuch, baptised by Philip, upon his return to Candece, became the abbot of Abyssinia. But, if the Abyssinians were converted at an early period, it is not likely that they should have continued without bishops, and without any kind of church-government for 350 years, and that they should have had no intercourse with neighbouring churches during the long period. Indeed, we know, in fact, that the Christian religion had not penetrated into the court of Candece, which was much nearer to Egypt, in the time of Philip, and it therefore could not reach into the more distant provinces of the country of Abyssinia. The Pitus, who, as Candece supposed, could not have been the true Philip of Abyssinia; if this were the case, the whole glory of the queen of Sheba must be rejected as fabulous, as there must have been a woman sitting upon the throne of that country for 350 years, after she had been excluded by a fundamental law of the land. But we are assured by credible writers, that the Candece reigned upon the Nile, in Africa, much nearer to Egypt. Her capital was taken in the time of Augustus, as we have already mentioned under the article Abyssinia, and her successors and kingdom existed in the reign of the Abyssinian kings, long after the Mahometan conquest, and they exist there to this day. To which we may add, that the Abyssinians are known to have continued Jesu and Marthas above 300 years after the time of the apostles. The ground upon which some ecclesiastical writers have attributed the conversion of the Abyssinians to the apostles, is a canonic of a council, said to be that of Nice, found, or pretended to have been found, in Alexandria. This canonic is written in Arabic, and is so unintelligible, says Mr. Bruce, who had seen it, that it scarce conveys any sense at all. But this canonic regulated the procedence of the Abuna of Ethiopia in all succeeding councils, and places him immediately after the prelate of Scetia. The Jesuits have avoided themselves of this canonic, in order to vindicate the honourable antiquity of the church of Ethiopia. The Abyssinian history informs us, that a queen reigned in Abyssinia, when Frumentius came into this country. Mr. Bruce observes, that though women are excluded from the Abyssinian throne, there exists a law, or custom, that the queen upon whose head the king shall have put the crown during his life, is regent of the kingdom, and guardian of every minor king, as long as she shall live. If such a queen should have a son, she would have the care of the kingdom, and of the king, during his minority; and if her son should die, and a minor, who was not in relation to her, should succeed, she would still be regent, and would hold office cease till he came of age. This reign, for life, is called Ildeghi. Such was probably the case at the time of Frumentius's settlement in Abyssinia. The history of the Abuna is very imperfectly known for many years after their appointment. The first of them, who is particularly noticed, is Abuna Tecla Haimanout, who distinguished himself by the submission of the royal family, and the regulations made by him both in church and state. He established the law, that the Abyssinians should not hold it in their power to choose one of their own men as Abuna. The Arabic canonic, above mentioned, may probably be attributed to this Abuna; and is a forgery, as every one from his time. Tecla Haimanout was a native of Abyssinia, and therefore the prohibition had not taken place until his time; but as no Abyssinian was afterwards chosen to this office, the canonic must be a work of his time, for it is impossible a canonic should have been made by the council of Nice, setting the rank of a bishop in a nation which, for above 500 years after that general council, were not Christians. As the Abuna holds the language of the country, he has no share of the government;
It is much sunk in general estimation from what he was formerly, chiefly by his intrigues, ignorance, avarice, and want of honesty. His principal employment is in the ordination of priests, deacons, and monks. Some of these Abunas have been merely by monks, without so much as priestly orders. Their revenue arises from the sale of distillations, and of ordination, and from certain lands in the kingdom of Tigre, Gujam, and Dambes, of which they are the sole farmers; to which we may add, a kind of public collection of salt and cloth annually made for them through the empire, which amounts to a considerable value.

The order next, if not in rank and dignity, yet in general estimation, to the Abunas, is that of the Debaras, who are neither priests nor deacons, but a kind of Jewish Levites or chanters, who attend at all public offices of the church, and particularly in the conduct of all their musical performances. Besides these, every parochial church has a president, subordinate to the Abuna, called Komos, or Hegumenos, or Archi-presbyter, who has all the inferior priests and deacons, and all the ecclesiastical and temporal affairs of the parish, under his inspection and government. The deacons occupy the lowest rank of the priesthood; they attend at divine service, and have their respective duties and vestments when they officiate. All these orders are allowed to marry; but the monks, who are very numerous, vow celibacy; and, it is said, with a reservation. Le Grand says, they make a profane alike, before their superior, to keep chastity, but add in a low voice, *as you keep it.*

The monks are divided into two classes; those of Debra Libanos, and those of St. Eutychius. The head of the latter, who are grossly ignorant, is the superior of the convent of Myehbar Schalle, in the north-west corner of Abyssinia, near Kiara, and the Sangalla, towards Sennar and the river Dender. The chief of the former is the Itchegoué, who is ordained by two chief priests, holding a white cloth, or veil, over him, while another says a prayer; and they then lay all their hands on his head, and join in psalms together. This Itchegoué is, in troublesome times, of much greater consequence than the Abuna. The monks do not live in convents, but in separate houses round their church, and each cultivates a part of the property they have in land.

The churches in Abyssinia are very numerous. Every great man that dies thinks he has atoned for all his wickedness, if he leaves a fund to build a church, or has built one during his life. The king builds many. The situation of a church is chosen near running water, for the convenience of their purifications and ablutions, in which they strictly observe the Levitical law. The churches are placed on an elevation, and surrounded by rows of Virginia cedar, which form very pleasing objects along the face of the country. All the churches are round buildings, with conical summits, and thatched roofs, and on the outside encompasit with pillars of cedar, to which the roof projects about eight feet beyond the wall, so as to form an agreeable walk in hot weather, or in rain. The inside of the church is partitioned in the manner preferred by the Mosi's law. In the first and outer circular apartment the congregation sit and pray. Within this is a square, divided by a veil or curtain, in which is another small division answering to the body of holies, and so narrow, that none but the priests can enter it. Persons of both sexes, under Jewish disqualifications, are prohibited from going within the outer circumference of the church, and must perform their devotion at an awful distance among the cedars; and those who enter the church must put off their shoes, and take care they are not trodden by the priests and monks before they return; kiss the threshold and two door-polls, say any prayer which they think proper, and thus their duty is finished. As for the doctrinal religion of the Abyssinians, it is that of the Greek church, which they received on their conversion to Christianity by Frumentius, about the year 335; and every rite or ceremony in the Abyssinian church may be traced to its origin in the Greek church whilst both of them were orthodox. Frumentius preferred it untainted with heresy whilst he lived. Afterwards Arianism, and a number of other heresies, as they are called, were brought by the monks from Egypt, and infected the church of Abyssinia. Many of these were owing at first to the various use of the two words, nature and person, than which no words were ever more equivocal in every language in which they have been translated. For some time the Abyssinians had free access to Cairo and Jerusalem, where their books were revised and corrected, and many of the principal orthodox opinions incultated. But since the conquest of Arabia and Egypt by Sultan Selim, in 1516, their intercourse with those countries has been interrupted; and they are now, says Mr. Bruce, with regard to doctrine, as great heretics, and with respect to morals, as corrupt as the Jesuits have represented them. But though he concurs with the Jesuits in condemning their sentiments and practice, he disapproves of their mode of reforming them. The eucharist is received by the Abyssinians in both kinds: for this purpose they use unleavened bread, and the grape bruised with the husk, and forming a kind of marmalade, is substituted for wine, though an excellent strong wine is made at Dreeca, about thirty miles south-west of Gondar. The communicant after receiving, drinks a large draught of water, and turning his face to the wall of the church, repeats some prayer in private with apparent decency and attention. Whether the Abyssinians believe the doctrine of transubstantiation or not, is not absolutely certain. Ludolph (I. iii. c. 5) thinks, that the words of consecration prove their disbelief of this doctrine. Mr. Bruce maintains the contrary opinion; though he tells us, that a priest declared to him, with great earnestness, that he never did believe that the elements in the eucharist were converted, by consecration, into the real body and blood of Christ. This, he said, was the Roman Catholic faith, but it never was his, and he conceived the bread to be bread, and the wine to be wine, even after consecration. With respect to the rate of souls before the resurrection of the body, the opinion generally prevailing is, that there is no third rate, but that the souls of good men enjoy the beatific vision immediately upon their separation from the body. However, their practice and their books contradict this opinion; for when any person dies, alms are given, and prayers are offered for the souls of those departed.

Upon the whole, we may observe, that the religion of the Abyssinians, in the present state of it, is unworthily dignified with the name of Christianity, since it confits in a motley collection of traditions and tenets, which have not any influence on practice. This people, of all ranks, of either sex, and of every age, are habitually liars, drunkards, gluttons, incapable in their repentance, faithless in their dealings, and cruel in their vengeance. The king has unlimited power; and a minister, in the king's name, exercises that power with the most licentious cruelty. The Abyssinians are totally illiterate; the arts cultivated among them remain in a state of great imperfection; and, which is a defect peculiar to themselves, they have not even an idea of music. Their bloody feuds, and their promiscuous amours, are too disgusting for description. Every thing in their country wears an air of wretchedness and meanenes. Such are the reflections of an anonymous writer in the Monthly Review, vol. ii. p. 423. New Series.

The
The Abyssinians have divers times expressed an inclination to be reconciled to the see of Rome; but rather out of interest of state than any other motive. See Abyssinia.

Several missionaries accuse the Abyssinians of Judaism, in regard to the many Jewish observances still in use among them: some have even doubted, whether they are more Christians, or Jews. Lobo says expressively, they are only Christians in name: they practice circumcision on females as well as males. But different opinions are held in different provinces with regard to the origin and obligation of this rite, as well as the time and mode of performing it. The Abyssinians of Tigre profess to have derived it from Himmad’s family and his descendants, with whom they were connected at an early period in their trading voyages; and they say, that the queen of Sheba, and all the women of that coast, had suffered excision at the usual time of life, before puberty, and before her journey to Jerusalem. The Falasha declare, that their circumcision was that commonly practiced at Jerusalem in the time of Solomon, and in use among them when they left Palestine, and came into Abyssinia. They perform it on the 8th day, as a religious rite, according to the first institution by God to Abraham. The Abyssinians pretend theirs is not of this kind, and that they practice it because Christ and the apostles were circumcised, though they do not hold it necessary to salvation. But none of them pretend that circumcision arises from any kind of necessity, or from any impediment to procreation, or that it is necessary for cleanliness, or from the heat of the climate; and therefore it is probable, that it was originally derived from a divine command, and as such, transmitted to them. See Circumcision. The Abyssinians cut no masts prohibited by the law of Moses. Women are obliged to the legal purifications. Brothers marry their brothers’ wives, &c. They abstain from hog’s flesh, blood, meats uncleaned, &c., and observe both Saturday and Sunday sabbaths, according to the custom of the primitive church: all of them have marks of Judaism; though by some reduced into mere human institution, and usage. They celebrate the Epiphany with peculiar festivity, in memory of Christ’s baptism; when they plunge and sport in ponds and rivers, which has occasioned some to affirm that they were baptized annually every year. This is positively asserted by Alvarez, but as positively contradicted by Mr. Bruce, (vol. iii. p. 324, &c.) who has given a very ample account of this ceremony, which is an old observance of the eastern church, formerly performed publicly in Egypt, as it is now in Ethiopia. Many falsehoods have been propagated with regard to the mode of baptism in Abyssinia, in order to impugn the validity of it, and to excuse the rash conduct of the Jefuits in rebaptizing all the Abyssinians, as if they had been a Jewish and pagan people that had never been baptized at all. Among the saints-days, which are very numerous, is one consecrated to Pilate and his wife; because Pilate washed his hands before he pronounced sentence on Christ; and his wife desired him to have nothing to do with the blood of that just person. They have four Lents: the great one commences ten days earlier than ours, and is observed with much severity, many abstaining therein even from fish, because St. Paul says there is one kind of flesh of men, and another of fishes. They allow of divorce, which is easily granted among them, and by the civil judge: nor do their civil laws prohibit polygamy. They have at least as many miracles, and legends of saints, as the Romish church; which proved so small embarrasment to the Jefuit missionaries, to whom they produced so many miracles, wrought by their saints, in proof of their religion, and those so well circumstanced and attested, that the Jefuits were obliged to deny miracles to be any sufficient proof of a true religion: and to allege the same arguments against the Abyssinians, which protestants in Europe allege against the papists. They pray for the dead, and invoke saints and angels; and have to great a veneration for the Virgin, that they charged the Jefuits with not rendering her honour enough. Images in painting they venerate, and pictures have been used in their churches from the earliest age of Christianity, but they abhor all those that are embalmed and in reliques: nor do they use a cross on the top of the ball of the Sandrich or standard, because it calls a thistle. They hold that the soul of man is not created, because, say they, God finished all his works on the sixth day. They have the same books of scripture with us; though few are able to purchase entire copies either of the Old or New Testament. The Revelation of St. John is a favourite book with them. The Song of Solomon is also much censured by the old priests, but the reading of it is prohibited to the young ones, the deacons, laymen, and women. The Abyssinians believe that this song was made by Solomon in praise of Pharaoh’s daughter; but they do not think, with some of our divines, that it contains any mystery or allegory respecting Christ and the church. They also admit the apocryphal books, and the canons of the apostles, as well as the apocryphal constitutions, for genuine. Their liturgy is given by Alvarez, and in English by Pagit; their calendar by Lualdi; the answers to abbé Gregory to certain questions, proposed by the author last cited, are published by Fabricius, under the title of Theologia Ethiopica.

ACA, Acco, and Acon, in Ancient Geography, a town of Phœnicia, on the Mediterranean; afterwards called Polémis, now Acre. See Aca.

ACABA, a ridge of mountains near Ger® in Abyssinia.

ACABONE, one of the districts or provinces into which Ptolemy divided Egypt. It was situated near the river Tigris.

ACABIS, a small town in Cyrenaica, mentioned by Ptolemy.

ACACALIS, in the Materia Medica, the name given by some authors to the fiiphery, or wild corre. Dale.

ACACALOL, or Acalot, in Ornithology, the name of an American bird, which is the Tantalus Maximus of Gmelin, and called by some Corvus aquaticus, or the water raven.

ACACESIUM, a city of Arcadia, so called from Acacus the son of Lycaon. It is mentioned by Pausanias, l. 8.

ACACIA, or Akasia, Merlin, in Biography, was born at Chalons sur Marne, about the year 1520. He studied at Paris under the celebrated Monf. Brillat, and was made Professor of Medicine and Surgery there, and acquired considerable reputation as a teacher in those sciences. He published commentaries on several of the works of Galen, in the years 1548, and 1555, and two books de Morbis Multicribibis, inferred in the Gynæcia by Spachius. He died in the year 1588.

ACACIA, in Botany. See Guilandina, Guaiacum, Mimosa, Poinciana, and Spartium.

The flowers of a species of the acacia are used by the Chinese in making that yellow, which, we fee, bears wafting in their fishermen and flulls; and appears with so much elegance in their painting on paper. The method is this: They gather the flowers before they are fully open; these put into a clean earthen vessel over a gentle heat, and stir them continually about, as they do the tea-leaves, till they become dry and of a yellowish colour; then to half a pound of the flowers they add three spoonfuls of fair
water, and after that a little more, till there is just enough to hold the flowers incorporated together: they boil this for some time, and the juice of the flowers mixing with the water, it becomes thick and yellow; then they take it from the fire and strain it through a piece of coarse silk. To the liquor they add half an ounce of common alum, and an ounce of calcined oyster-shells reduced to a fine powder. All is then well mixed together; and this is the fine yellow they have so long used.

The dyers of large pieces use the flowers and seeds of the acacia for dying three different sorts of yellow. They roast the flowers, as before observed; and then mix the seeds with them, which must be gathered for this purpose when full ripe; by different admixture of these they give the different shades of colours; only for the deepest of all, they give a small mixture of braul wood.

M. Geoffroy attributes the origin of bezoar to the seeds of this plant; which being bruised by certain animals, and volatilizing the blood by their great furours and affirsiency, cause a condensation of the juices, till at length they become coated over with a fliny matter, which we call BEZOAR, or BESOARD.

Acacia, bastard, or false, in Botany. See ROBINIA.

Acacia Indica, signifies TAMARIND.

Acacia, three-throned. See GLEDITSIA.

Acacia Zeylanica, signifies LOGWOOD.

Acacia, in the Materia Medica, is a subastringent gummy subduance, prepared by infalulating to a due consi-

tenance, the juice expressed from the unripe pods of the

Acacia fcleropodis leguminosa of Buhine, or the Mimosa

Abutifla of Linneas. For an account of the pods, and man-

ner of preparing the juice, see Murray's Apparatus Med.

vol. ii. p. 412. This subduance is brought from Egypt,

in roundish mases, wrapt up in thin bladders from four

to eight ounces in weight. It is outwardly of a blackish brown

colour, and inwardly of a reddish or yellowish brown. This

juice totally diffuses in water; but rectified spirit produces

little or no effect upon it; it is therefore truly of the gummy

kind. It has no smell, and applied to the tongue it soon

softens, and manifests first a moderately rough and then a

sweetish taste.

This mild gummy astringent may be given to advantage

d in disorders arising from laxity and acrimony, as habitual

diarhenas, uterine flours, and catarral coughs. By the

Egyptians it is used against spitting of blood, in doses of a

dram; and also in collyria for strengthening the eyes, in gar-

garins for quinkeys, and glyters for diarrhenas. Among

as it is seldom otherwise used than as an ingredient in mi-

thirdate or theriac. The above subduance has been called

Acacia vera, by way of distinction from the German Acacia,

which is a counterfeit of the other, and often sold for it in

the shops. This is the infalulated juice of unripe fobs, formed

by boiling the juice to the consienance of a solid extract. It

is distinguished from the true Acacia chiefly by its colour,

which is as black as that of Spanish liquorice, and also by

being harder and heavier, and of a sharper taste; and by

giving out its astringency to rectified spirit. This is ad-

ministered in fluxes, that indicate the want of physic

drinks, in doses from a scruple to a dram. Lewis, Mat.

Med.

Acacia, among Antiquaries, denotes something resem-
bbling a kind of roll or bag, seen on medals in the hands

of several of the consuls and emperors from the time of Ana-

nias.

According to Du-Canoe, the acana, properly so called,

A C A

A C A

was a purple bag filled with earth, or sand, and born by

the prince in his left hand, to remind him of his frailty and

mortality; and thus to prevent his being too much elated

with his flation.

But authors are not agreed, either about the use of this

roll, or about the subduance wherof it consists; some taking

it for a handkerchief rolled up, which the person who pre-

fided at the games threw out as a signal for their begin-

ning; whilst others rather imagine it intended to represent a

roll of memoirs, or petitions.

ACACIANS, in Church History, the followers of Acacius,

bishop of Caesarea, who flourished about the middle of

the fourth century. He succeeded his preceptor, the fa-

mous Eusebius, in 340, wrote his life, and several other works,

viz. 17 books upon Ecclesiastes, six books of Miscel-

aneous Questions, and a book against Marcellus, and died

about the year 356. He was consecrated Luceus, or Mo-

nophthalmus, because he could see only with one eye.

He is generally reckoned a man of unlearned principles,

but he was featural and eloquent, and a skilful disputant.

Some of the Acacians maintained, that the Son was not of

the same, but of a similar subduance with the Father: others

held that he was of a different subduance from the Father.

This was likewise the denomination of another sect, derived

from the name of their leader, a patriarch of Constantinople,

in the fifth century, who favoured the opinion of Eutyches.

See EUTYCHIAN, and MONOPHYSITES.

It was by the advice of this Acacius, who succeeded Gen-

nadius in 471, and died in 489, that the HENOTICON was

published, by the emperor Zeno in 482. In this connection

we cannot forbear introducing a circumstance, that redounds

much to the honour of another Acacius, bishop of Amida,

in 420, whose name, says Gibbon, (Hift. Decl. and Fall of

the Rom. Emp. vol. v. p. 427, 8vo.) might have dignified

the faintly calendar. Boldly declaring that cups of gold and

silver are useless to a god, who neither eats nor drinks, this

generous prelate fold the plate of the church of Amida;

employed the price in the redemption of 7000 Persian cap-

tives; supplied their wants with affectionate liberality; and

dismissed them to their native country, to inform the king

of the true spirit of the religion which he perfected. The

king, it is said, was so affected by this act of benevolence,

that he wished to see the bishop; and the interview produced

a peace between this prince, Veranius, and Theodosius I.

ACACIUS, a name given to several bishops, and other

eminent persons besides those mentioned under the preceding

article; particularly a martyr under the emperor Decius;

a patriarch of Antioch, who succeeded Basil in 438, and

died in 459; a bishop of Mileto in the 5th century; an-

other bishop of Berocia in Syria, who was present at the

council held at Constantinople in 381, the friend of Epip-

hanus Flavianus, and the enemy of John Chrysalon,

bishop of Constantinople, whom he caused to be depofed,

and who, at the age of 110 years, advised Theodorus the

younger, to confirm the sentence pronounced against

Neforus, and also against Cyril, bishop of Alexandria; he

was eminent for wisdom and fanctity, says Theodoret, and

died in 436—and a famous rhetorician in the reign of the

emperor Julian.

ACADA, see PORTO BELLO.

ACADEMICS, a fect of philosophers who followed the
doctrine of Socrates and Plato, as to the uncertainty of

knowledge, and the incomprehensibility of truth.

Academic, in this sense, amounts to much the same with

Platonism, the difference between them being only in point

of time. They who embraced the systen of Plato, among

the ancients, were called Academici; whereas those who did

the same, since the restitution of learning, have assumed the

denomination of PLATONISTS.
We usually reckon three sects of Academicians; though some make five. The ancient Academy was that which was founded by Plato; and consisted of those followers of this eminent philosopher, who taught the doctrine of their master without mixture or corruption. The first of these was Socrates; he was succeeded by Xenocrates. After his death the direction of the academy devolved upon Plato, and then upon Crates, and terminated with Cicero. After the death of Crates, a new tribe of philosophers arose, who on account of certain innovations in their manner of philosophizing, which in some measure receded from the Platonic system, without entirely defeating it, have been distinguished by the appellation of the Second or Middle Academy. The first preceptor, who appears in this class, and who, in consequence of the innovations which he introduced into the Platonic school, has been commonly considered as the founder of this Academy, is ARCEUS.

In order to conceive justly concerning the nature and causes of this revolution, it will be proper to advert to the state of opinions in the preceding period. It had been very generally maintained by both the Greek and Barbaric philosophers, that there can be no certain knowledge of things so variable and fluctuating as those material objects which fall under the notice of the senses. But they did not imagine that human reason is wholly incapable of arriving at truth; nor was the doctrine of universal scepticism introduced in the infancy of philosophy. In excluding material objects from the department of science, the first philosophers discovered an inclination to inquire with modesty concerning the nature of things, to divest themselves of prejudice, and to satisfy themselves with a sober assent to those truths which lie within the reach of the human understanding. Besides, the Barbaric philosophers, and after them the Greeks, held two kinds of doctrine, the popular for the amendment of the vulgar, and the concealed, which was communicated in the confidence of mere private instruction to their professed disciples. Such was the state of philosophy, when Socrates appeared, and exerted himself in regulating the conduct of the human mind. In opposition to the Sophists, who boasted that they knew every thing, he confessed that he knew nothing; by which acknowledgment he did not mean to affect the universal uncertainty of human knowledge, but merely to convince his followers of the futility of those speculations, which do not rest upon the firm foundation of experience, and to teach them modestly in their inquiries, and diffidence in their assertions. Among the sects who sprung out of the school of Socrates, the greater number devoted into the mazes of disputation, and resumed the Sophistic mode of arguing on either side of every question, that was proposed. Plato inclined to a stricter method of philosophizing; and in his public disputations after the Socratic manner, whist he refuted the opinions of others, and left his hearers undecided concerning his own, he fully explained the principles of his philosophy to those pupils who were indulged with his private and confidential instruction. His doctrine was, that no certain knowledge can be obtained concerning the varying forms of natural bodies, and that ideas are the only objects of science. This doctrine was universally taught in the Old Academy; but before the time of Arceus, it was never denied, that useful opinions may be deduced from the senses. Cic. Acad. 1. 1. c. 8. tom. ii. Ed. Olivet. Two sects arose about this time, which threatened the destruction of the Platonic system; one was founded by Pyrrho, which held the doctrine of universal scepticism, and the other by Zeno, which maintained the certainty of human knowledge, and taught with great confidence, a doctrine essentially different from that of Plato. In this situation, Arceus thought it necessary to exercise a caution referre with regard to the doctrine of his master, and to conceal his opinions from the vulgar, under the appearance of doubt and uncertainty. Professing to derive his doctrine concerning the uncertainty of knowledge from Socrates, Plato, and other philosophers, he maintained, that though there is a real certainty in the nature of things, every thing is uncertain to the human understanding, and consequently that all confident assertions are unreasonal. He thought it disgraceful to affect to any proposition, the truth of which is not fully established, and maintained that, in all questions, opposite opinions may be supported by arguments of equal weight. He disputed against the testimony of the senses, and the authority of reason; acknowledging at the same time, that they furnish probable opinions sufficient for the conduct of life. However, his secret design seems to have been to establish the doctrine of Plato, that the knowledge derived from sensible objects is uncertain, and that the only true science is that which is employed upon the immutable objects of intelligence, or ideas.

After the death of Arceus, the Platonic school was successively under the care of Laodiceus, who is said to have founded a new school, merely because he changed the place of instruction, and held it in the garden of Attalus, within the limits of the Academic grove, and of Evander and Egemon. Arceus, however, had opposed the Stoics and other dogmatical philosophers, with such violence, and extended his doctrine of uncertainty so far, as to alarm not only the general body of philosophers, who treated him as a common enemy to philosophy, but even the governors of the state, who apprehended that his opinions would diffuse among the passing of the state, and innumerable schools of the Philosophers, who were influenced by the tenets of Arceus.

From this period the Platonic school assumed the appellation of the New Academy, which may be reckoned the third in order from its first establishment. It was the doctrine of this Academy, that the senses, the understanding, and the imagination, frequently deceive us, and therefore cannot be infallible judges of truth; but that, from the impressions produced on the mind, by means of the senses, called by Carneades phantasies, or images, we infer appearances of truth, or probabilities. These images do not always correspond to the real nature of things, and there is no infallible method of determining when they are true or false; and consequently they afford no certain criterion of truth. But, with respect to the conduct of life and the pursuit of happiness, probable appearances are a sufficient guide, because it is unreasonable not to allow some degree of credit to those witnesses who commonly give a true report. See Propriety. According to the doctrine of the New Academy, the judgments arising from the operation of the mind in estimating the different degrees of probability, are not science, but opinion, which is all the knowledge that the human mind is capable of attaining. The chief point of difference between the Middle and the New Academy, seems to have been, that the latter taught the doctrine of uncertainty in less exceptional terms than the former. Dr. Warburton, however, offers several reasons to show that both these Academies were in reality the same, and that they were as real sceptics, as the sect which was so denominated. See Div. Leg. of Moses, vol. ii. p. 171, 178, 4th ed. Arceus, in his zeal for overturning all other sects, furnished his opponents with a pretext for charging him
him with attempts to undermine the whole foundation of morals. Carneades, avowing himself of probability, afforded sufficient scope for practical principles of conduct. Accius was chiefly employed in opposing the tenets of other philosophers in logic and physics, and paid little attention to ethics. Carneades, whilst he inculcated the necessity of suspense in speculative researches, preferred rules for the direction of life and manners. The immediate successor of Carneades, in the New Academy, was CLITOMACHUS. He was succeeded by Philo of Larissa, who is considered by some writers as the founder of a fourth Academy; and a fifth is said to have been established by Antiochus of Askalon, who was the last preceptor of the Platonic school, and who attempted to reconcile the tenets of the different sects, and maintained that the doctrines of the Stoics were to be found in the writings of Plato. After his time the professors of the Academic philosophy were showered by the tumults of war, and the school itself was transferred to Rome. Here the philosophy of the Old Academy, revived and corrected by Antiochus, found many advocates. Amongst the most eminent of these we may reckon Lu- cullus, Marcus Brutus, M. Teneus Varro, and M. Piso. The Middle Academy had likewise its patrons in this city; as it was founded upon a conviction of the imbecility of human reason, without running, with the Pytho- nists, into the extravagance of an entire suspension of opinion, it became a favorite sect among the Romans. Cicero, to whose profession, as a public pleader, whose business it was to collect arguments from all quarters on opposite sides of every doubtful question, it was peculiarly adapted, acquainted himself with this sect; and having himself been instructed by Philo, he would not find it difficult to induce others to follow his example. Cicero De Off. l. 2. c. 2. Oper. tom. iii. p. 328. Tusc. l. 2. c. 2. tom. ii. p. 353. — l. 4. c. 4. tom. ii. p. 419. Acad. Qu. palm. tom. ii. p. 5-99. De Fin. l. 2. c. 1. tom. ii. p. 129-1. 5. c. 3-5. tom. ii. p. 248-251. De Orat. l. 3. c. 16-18. tom. i. p. 328. De Nat. Doctrin. l. 1. c. 5-7. tom. iii. p. 504. Philoq. Fragm. tom. iii. p. 585. Ed. Oviet. Genet.—Diog. Laert. l. 3-4-5. tom. i. Ed. Amil.— Sext. Empir. l. 1. c. 33. p. 56. Contra Logic. l. 7. p. 401. &c. Ed. Fabr. Lipl. Enfr. Hist. of Philos. b. 2. c. 8. vol. i. p. 238. &c. b. 3. c. 1. vol. iii. p. 9-11. See Elec- trists, Platonists, and Sceptics. For the difference Between the Academicians and Sceptics; See Sceptics.

Academicians. Academicians, or Academists, is also used among us for the members of the modern academies, or inculcated societies of learned persons. ACADEMY, Academia, in antiquity, a public grove, or villa, situated on one of the suburbs of Athens, about six stadia, or ¼ of a mile from the city; where Plato, and the wise men who followed him, held assemblies for dispute and philosophical conference; and which gave the denomination to the fact of Academies.

It took its name academy, from one Academus, or Eca- demus, a citizen of Athens, to whom it originally belonged; and who appropriated it to gymnastic sports or exercises:—H. lived in the time of Thucydes.

Some, erroneously, derive its name and origin from Cadmus the Phoenician, as being the first who introduced learning, and the use of letters, among the Greeks.

The academy was farther improved and adorned by Cimon, with fountains, trees, shady walks, &c. for the convenience of the philosophers and men of learning who here met to confer, dispute, &c.—Hipparchus, the son of Pithagoras, built a wall round it: and, in order to defray the charges, laid so heavy a tax on the people, that ever after 'τιτετηρητα των, was used proverbially for any expensive business. It was also the burying-place of illustrious persons, who had deserved well of the republic. Of this retreat, so well adapted to philosophy and the muses, Horace speaks, Epist. II. 45.

"Atque inter sylvas Academiam querere verum."

"Midst academic groves to search for truth."

Within this inclosure Plato possest, as a part of his humble patrimony, purchased at the price of three thousand drachmas, or about 116l. 10s. 6d. sterling, a small garden, in which he opened a school for the reception of those who might be disposed to attend his instructions.

Here he taught his philosophy: and from this circum- stance all public places, designed for the assemblies of the learned and ingenious, have been since called ACADEMIES.

Sylla sacrificed the delicious groves and walks of the academy, planted by Cimon, to the laws of war; and employed those very trees to make machines with which to batter the city. Cicero also had a villa, or country retreat near POZZANOli, which he called by the same name, academia; where he used to entertain his philosophical friends.—It was here he composed his Academic Questions, and his book De Natura Doctrin.

Academy is more frequently used among the moderns, for a regular society, or company of learned persons; instituted generally under the protection of a prince, for the cultivation and improvement of arts or sciences.

Ptolemy Soter, in order to encourage and improve the liberal arts in his dominions, founded an academy at Alex- andria, or a society of learned men, who devoted themselves to the study of philosophy, and all other sciences; and he provided them with a collection of books, which became by degrees the finest library in the world, and has been known under the name of the Alexandrian Library.

Theodorus the younger, founded an academy at Con- stantinople, which he furnished with able professors of every science, intending it as a rival institution to that at Rome, which, with other literary seminaries, had been destroyed by Alaric and the Goths, towards the close of the fourth, and beginning of the fifth centuries.

Some authors confound academy with university; but though much the same in Latin, they are very different things in English.—An university is, properly, a body composed of graduates in the several faculties; of professors, who teach in the public schools of regents or tutors, and students who learn under them, and aspire likewise to degr es. Whereas, an academy is not intended to teach or profess any art, such as it is, but to improve it: it is not for novices to be instructed in, but for those that are more knowing; for persons of distinguished abilities to confer in, and communicate their lights and discoveries to each other, for their mutual benefit and improvement.

The first academy we read of, was established by Chal- mage at the motion of ALCUIN: it was composed of the chief wits of the court, the emperor himself being a member.—In their academical conferences, every person was to give an account of what ancient authors he had read; and each of them assumed the name of some ancient author who pleased him most, or some celebrated person of antiquity. Alcuin, from whose letters we learn the particulars, took that of Plicens, the surname of Horace; a young lord named Augilbert, took that of Homer; Adelard, bishop of Corbie, was called Augilinus; Riculf, bishop of Mentz, was Dametas; and the king himself, David.

Most nations have now their academies; but Italy has the greatest number.
Of these useful institutions we shall give an account in the following order.

Academies of Antiquities; as

The Academy at Cortona, established for the study of the Hetrian antiquities; which are numerous and extenstive. Their head is called Lucumon, a name taken from the ancient governors of Heturia. One of their laws is to give audience to poets only one day in the year: another is, to fix their feellons, and impose a tax of a disertation on each member in his turn.

The Academy of Antiquities at Upsal, owes its rite to queen Christine, but its establishment chiefly to Charles Guiltarius her successor. Its design is for illustrating the northern languages, and the antiquities of the country, as stones, coins, and the like monuments; in which notable discoveries have been made by it. The more eminent of its members have been Vercins, Loceimus, Schefler, Rudbecks, Kedir, Salin, Perdischit, &c.

Academy, of Architecture, was established at Paris by M. Colbert, in 1671, consisting of a company of faithful artists, under the direction of the Superintendent of the buildings.

Academy, Royal of Arts, was instituted in London for the encouragement of Designing, Painting, Sculpture, &c. &c. in the year 1768. This academy is under the immediate patronage of the king, and under the direction of forty artists of the first rank in their several professions. It furnishes, in winter, living models of different characters, to draw after; and in summer, models of the same kind to paint after. Nine of the ablest academicians, are annually elected out of the forty, whose business is to attend by rotation, to set the figures, to examine the performances of the students, and to give them necessary instructions. There are likewise four professors of Painting, of Architecture, of Anatomy, and of Perspective, who annually read public lectures on the subjects of their several departments; besides a president, a council, and other officers.

The admission to this academy is free to all students, properly qualified to reap advantage from the studies cultivated in it; and there is an annual exhibition of paintings, sculptures, and designs, open to all artists of distinguished merit.

The Academy of Arts, at Petersburgh, was established by the empress Elizabeth, at the suggestion of count Shuvalof, and annexed to the Academy of Sciences. The late empress Catharina has formed it into a separate institution, enlarged the annual revenue from 4000l. to 12,000l, and augmented the number of scholars from 40 to 300. She has also constructed, for the accommodation of the members, a large circular building, which fronts the Neva. The scholars are admitted at the age of 14, and continue to 18; and they are lodged, clothed, fed, and taught, at the expense of the crown.

All of them are instructed in reading and writing, arithmetic, the French and German languages, and drawing. At the age of 14, they may chose any of the following arts, which are distributed into four classes: 1. Painting in all its branches of history, portrait, battle, and landscape; architecture; mosaic; enamelling, &c. 2. Engraving on copper-plates, seal-cutting, &c. 3. Carving in wood, ivory, and amber. 4. Watch-making, turnery, instrument-making, calling statues in bronze and other metals, imitating gems and medals in paffe and other compositions, gilding, and varnishing. Prizes are annually distributed among those who excelled in any particular art; and from those who have obtained four prizes 12 are selected, who are sent abroad at the public charge. Their travelling expenses are defrayed; and when they settle in any town, they receive an annual salary of 60l. for four years. There is an assortment of paintings and models for the use of the scholars.

Academies, of Painting, Sculpture, and Architecture; as these celebrated ones annually at Florence and Milan, called also school; and that at Rome, incorporated into the new institute; to which may be added the academy of painting and sculpture at Paris and Vienna; another of designing at Rome.

Academy of Painting and Sculpture at Paris, was first projected by Le Brun, Sarazin, Corneille, &c. for which they obtained an arret of council in 1648, and established in 1654 and 1657, under the Cardinal Mazarnes, first protector thereof; and the chancellor Seguier vice-protector. In 1665, a pension of 4000l. was granted to the academy by the interposition of M. Colbert. It consists, besides, of a director, a chancellor, four rectors, a treasurer, and four professors, one of anatomy, and another of geometry; adjuncts to the rectors and professors; counsellors; a secretary; an historiographer, and two others.

Perons are here admitted either in quality of painters or sculptors, who model from a naked person. The painters are admitted according to their respective talents; there being a distinction made between those who work in history, and those who only paint portraits, or landscapes, or heads, or fruit, flowers, or paint in miniature; or only design, or engrave, or carve, &c. In the Academy of painting there are 12 professors, each of whom attends a month in the year, and their place is supplied by 12 adjutants. The professor upon duty places the naked man as he thinks proper, and sets him in two different attitudes every week. This they call setting the model. In one week of this month he sets two models together, which is called setting the group. The paintings and models made after this model are denominated academies, or academy-figures. They have likewise a woman who stands for a model in the public school. Three prizes for design are distributed every three months among the scholars; two others for painting, and two for sculpture every year. An account of this academy has been published by Guerin, under the following title, Descrip. de l'Acad. Roy. de Peinture & Sculpt.

There is also a French academy of painting, sculpture, &c. at Rome, established by Lewis XIV., wherein those who have won the annual prizes in the like academy at Paris, are received and entertained for three years with a view to farther improvement.

An Academy of drawing and sculpture was established at Manheim, by Charles Theodore, elector Palatine, in 1755, with a view of encouraging and promoting the fine arts.

The Academy of painting and sculpture, at Stockholm, has nine professors, and commonly about 400 scholars. This academy annually distributes three large and three small medals; and the scholars who most distinguish themselves, are permitted to travel into France and Italy, at the expense of the institution.

Academies of Belles Lettres, those wherein eloquence and poetry are chiefly cultivated. Italy abounds with these; and in France there are not a few; such as

The Academy of Umidi at Florence, called afterwards Ia Firentina, in honour of the grand-duke Cosimo I. who declared himself its protector in 1539, is illustrious both for the works it has produced, and its members; for these two last ages have included most of the eminent men, not only in Tuscany, but in all Italy. Their chief attention is to the Italian poetry.

Academy of Humorists, Umaristi, had its origin at Rome, from the marriage of Lorenzo Mancini, a Roman gentleman, at which several persons, of rank were gueess; and
and it being carnival time, to give the ladies some diversion, they took themselves to the reciting of verses, sonnets, speeches, and comedies, first, _ex tempore_, and afterwards premeditatedly: which gave them the denomination of _Belli Humori_. After some experience, coming more and more into the taste of these exercises, they resolved to form an _academy of Belles Lettres_: and changed the title of _Belli Humori_ for that of _Humori_! choosing for their device a cloud, which, after being formed of the same exhalations of the sea, returns in a gentle sweet shower, with the motto from Lucrætius, _redi agmina dulci_.

_Academy of Arcadi_ was established at Rome in 1690, for reviving the study of poetry, and the _belles lettres_; and comprehends most of the polite wits in Italy, of both sexes; many princes, cardinals, and other ecclesiastics: to avoid all disputes among whom, about pre-eminence, it is wisely provided, that all appear marked, after the manner of shepherds of Arcadia. Within ten years from its first establishment, the number of _Academiæ_ amounted to 600. They hold assemblies seven times a year, in a mead or grove; or in the gardens of some nobleman of distinction. Six of these meetings are employed in the recitation of poems, and verses of the _Arcadi_ residing at Rome, who read their own compositions: except ladies and cardinals, who are allowed to make use of other shepherds for this office. The seventh meeting is set apart for the compositions of foreign, or absent members; in which there is more entertainment than in all the rest; because the pieces produced here are written in all the different styles and dialects of Italy. The government of this academy is wholly democratical, allowing of no prince or protector, but only a _cuffos_, who represents the whole society, chosen each olympiad, that is, every four years; with a power of electing twelve others yearly, to assist him in the administration. Under these are two _fabrophilæi_, one vicar or _procurator_, and four deputies or superintendants, annually chosen. There are five ways of electing members; the first called _acclamation_, used when sovereign princes, cardinals, and ambassadors of kings, desire to be admitted; in which case the votes are given _viva voce_; the second, _annuation_, introduced in favour of ladies and academical colonies; where the votes are taken privately: the third, _representation_, established in favour of colleges and universities, where the young gentry are bred; who have each a privilege of recommending one, or two members, privately to be balloted for; the fourth, _farrogation_, whereby new shepherds are substituted in the room of those dead, or expelled; the last, _definition_, whereby, when there is no vacancy of members, persons of poetical merit have the title _Arcadi_ conferred on them, till such time as a vacancy shall happen. All the members of this body at their admission, assume new pater- nodal names, in imitation of those of the ancient Arcadians. The academy has divers colonies of _Arcadi_ established in other cities in Italy, all regulated after the same manner.

_Academy, Royal at Caen_, was established by letters patent in 1705; it had its rise fifty years earlier in private conferences, held first in the house of M. de Brieux. M. de Segrains retiring to this city, to spend the rest of his days, restored and gave new luster to their meetings. In 1707, M. Fœvaux, intendant of the generality of Caen, procured the king's letters patent for erecting them into a perpetual academy, of which M. Fœvaux was to be protector for the time, and the choice afterwards left to the members, the number of whom was fixed to thirty, and the choice of them, for this time, left to M. Fœvaux. Befide the thirty, leave is given to add some supernumerary members, not exceeding six, from the ecclesiastical communities in that city.

An assembly of men of letters was formed at Lyons, which merely wanted letters patent to constitute a royal academy, inferior to few in France. It consisted of twenty academists, with a director at their head, and a secretary who is perpetual. F. Lombard, a Jesuit, one of the members here read a learned dissertation on infinity. There is an _Academy of Belles Lettres_, History, and Antiquaries at Stockholm, the Memoirs of which are published in the Swedish language.

_Academies, Chirurgical_, as that first instituted at Paris in 1731, and finally established by letters patent from the king in 1748; the members of which are not only to publish their own and correspondents' observations and improvements, but to give an account of all that is published in surgery, and to compose a complete history of this art, by their extracts from all the authors, ancient and modern, who have wrote on it. A question in surgery is to be proposed by the academy yearly; and a prize of a gold medal of five hundred livres value to be given to him who furnishes the most satisfactory answer.

_Academy of Surgery_ was instituted some years ago at Vienna by the emperor, under the direction of the celebrated Brambilla. It had at first only two professors, who had the charge of instructing 150 young men, of whom thirty had been in the army. But the number both of teachers and pupils has been much increased. They are provided with a large edifice in Vienna, which affords habitations for the teachers and students, and also for pregnant women, and patients for clinical lectures, and new arts. They have also a medical library, a complete set of chirurgical instruments, an apparatus for experiments in natural philosophy, a collection of specimens in natural history, a number of anatomical and pathological preparations, and a variety of other useful articles. Adjoining to the building, there is also a good botanical garden. Three prize medals, of the value of forty florins each, are annually bestowed on the students who return the bell answers to the questions proposed in the preceding year.

_Academies, Cosmographical_, as that of the Argonauts at Venice, instituted at the solicitation of F. Coronelli, for the improvement of Geography. The design of the academical cosmography is to procure exact maps, geographical, topographical, hydrographical, and ichnographical, of the celestial as well as terrestrial globe, and the several regions and parts thereof, together with geographical, historical, and astronomical descriptions; in order to which, the several members obligate themselves, by their subscription, to take one or more copies of each piece, published under the direction of the academy; and to advance the money or part of it, in order to defray the charge of publication. To this end, three societies were settled at Venice, Paris, and Rome: the first under F. Moro, provincial of the Minorites of Hungary; the second under the abbot Laurence au Rue Payenne au Marais; the third, under F. Ant. Baldigian, Jesuit, professor of Mathematics in the Roman college; to whom those address themselves, who are willing to engage in this design. The number of members in the several countries of Europe has been considerable; their device is the terraqueous globe, with the motto, _plus ultra_. At the expense of this academy, all the globes, maps, and geographical writings of F. Coronelli have been published.

_Academy of Dancing_. One of this kind was instituted by Louis XIV. with extraordinary privileges.

_Academies, Ecclesiastical_, as that at Bologna, instituted in 1687, and employed in the examination of the doctrine, discipline, and history of each age of the church.

_Academies, Historical_, as the _Royal Academy of Portugal_. 
Lusitanae INSTITUTA VI. Ihns Decembris MDCCXX.

This academy consists of a director, four censors, a secretary, and fifty members; to each of whom is assigned some part either of the ecclesiastical, or civil history of the nation; which he is to treat either in Latin, or Portuguese.

Academy of Swedish History, at Tubingen, was established by some learned men, for publishing the best historical writings, the lives of the chief historians, and compiling new memoirs, on the several points and periods thereof.

Academies of Language, are called by some, Grammatical Academies; as the Accademia della Crusca, Accademia Sforzesca, or the Bran Academy, alluding probably to the end of their institution, which is to sift out and reject as husks or bran, all Italian words that are not good Tuscan, is famous for its vocabulary of the Italian tongue, and was formed in Florence, in 1582, but scarce heard of before the year 1584, when it became noted for a dispute between Tasso and several of its members. Many authors of note confounded this with the Florentine academy. The famous Torricelli delivered many of his philosophical discourses in this academy. This academy is now united with two others, viz. the Florentina, and the Apatiti, under the name of Real Academia Fioren-
tina.

Academy of Prussia had its rise in 1617, at an assembly of several princes and nobility of the country, who met with a design to refine and perfect the German tongue. It flourished long under the direction of princes of the empire, who were always choice prelates. In 1668, the number of members rose to upwards of nine hundred. The history of this academy is written in the German tongue by George Neumarc.

Academy, French, had its rise in a private meeting of men of letters in the house of M. Corne, in the year 1628. Cardinal Richelieu, in 1635, at the instance of M. Chapelle, erected it into an academy for refining and ascertaining the French language and style. The number of the members was limited to forty, out of whom a director, a chancellor, and secretary, are to be chosen; the two former hold their post for two months, the secretary is perpetual. Several privileges and immunities were conferred on the new academy, particularly the droit de commissaire, or a privilege of not appearing to answer before any court, but that of the king's houhold. Their first assemblies were held in the cardinal's apartment; after his death, in that of the chancellor Seguier. At last an apartment was given them in the Louvre, now called Académie Française. They meet three times a week in the Louvre; at breaking up, forty silver medals are distributed among them, having on one side the king of France's head, and on the reverse, protégeur de l'Académie, with a laurel and this motto, a l'Immortel. By this distribution, the attention of the academits is secured to those who are present receiving the surplus, otherwise intended for the absent.

As to the employments of the academy: its design being not only to give rules but examples of good writing; they began with making speeches on subject taken at pleasure, each member in his turn; twenty of these have been printed. Their next work was a critique of the Cid of M. Corneille, a task enjoined them by the cardinal. They next set about a dictionary of the French tongue, which after about forty years spent in it, in order to settle the words and phrases to be used in writing, &c., was published in 1692; having in the mean while given occasion to some smart disputes with M. l'Abbé Furetiere, one of their own members.

Their history is written with great elegance to the year 1672, by M. Felison; improved and continued to the year 1700, by M. l'Abbé d'Olivet: the same is given historically, by F. le Camus.

A similar Academy was founded at Petersburg by the late Empress, upon a plan proposed by the prince de Dalkoff, and a fund provided for its establishment and support. It is to consist of 60 members.

The Royal Swedish Academy was formed on the plan of the French academy by Gustavus III., who attached a premium to some of its members. Its object is the improvement of the Swedish language, poetry, and eloquence.

Academy, Royal Spanish, is an academy for cultivating the Castilian tongue, established at Madrid, on the model of the French academy.—The design of this was laid by the duke d'Escalona, and approved of by the king in 1714, who declared himself protector thereof. It consists of twenty-four academits; including the director and secretary. Its device is a crucible on the fire, with this motto, limina, fæss, y del esfondar: i.e. it purifies, fixes, and gives brightness; which some have criticiised. Their object, as marked out by the royal declaration, is to cultivate and improve the national language: in order to which, they are to begin with choosing carefully such words and phrases, as have been used by the best Spanish writers: noting the low, barbarous, or obsolete ones, and composing a dictionary, wherein these may be distinguished from the former, &c. by which means, adds that prince, it will clearly appear, that the Castilian tongue is inferior to none of those most esteemed in the world; and may be employed with advantage either in teaching the arts and sciences, or in expressing the most perfect Latin or Greek originals in exact translations. The academy is to have its own printer; yet not to put any thing to press without the permission of the council. For farther encouragement all privileges and immunities enjoyed by the domestic offices, actually in the king's service, and the royal palace, are granted the academits.

Academies of Law: as that famous one at Berytus, and that of the Sicenites at Bologna.

Academy of Medals and Inscriptions at Paris, was set on foot by M. Colbert in 1663, and distinguished by its present appellation, in 1691, for the study and explanation of ancient monuments, and perpetuating great and memorable events, especially those of the French monarchy, by coins, reliefs, inscriptions, &c. The number of members at first was confined to four or five, but in 1701 was increased to forty; whereof ten were to be honoraries, ten pensioners, ten associates, and the same number of novices or elaves, which has been since annexed to the clas of elaves. The king nominates their president and vice-president yearly; but their secretary and treasurer are perpetual. The reit are chosen by the members themselves, agreeably to the constitutions given them on that behalf. Their chief work is a kind of inedical history of the reign of Louis XIV., which, after some interruptions, was continued to the advancement of the duke of Anjou to the crown of Spain. Befide which we have several volumes of their effays, under the title of memoirs: and their history, written and continued by their secretaries. Their motto is vetat mori.

Academies, Medical, as that of the Natura Curiosi in Germany: that founded at Palermo, in 1645; another at Venice.
Venice, in 1791, which meets weekly in a hall near the grand hospital; another at Geneva, in 1745, in the house of M. le Clerc. The colleges of physicians at London and Edinburgh, are also by some ranked in the number of medical academies.

Academy of Nature Curiosum, in Germany, was first founded in 1652, by M. Bautch, a physician, who invited all physicians to communicate their extraordinary cases, and was elected president. Their works were at first published separately: but, in 1670, it was preferred to publish a volume of observations every year. The first volume appeared in 1674, under the title of Ephemerides, which was continued with some interruptions, and variations of the title, in 1677, the academy was taken under the protection of the emperor Leopold; who granted the members several privileges, and particularly that their presidents should be counts palatine of the Roman empire. From him it has been sometimes designated the Leopoldine academy.

This academy differs from all others, in that it has no fixed residence, or regular assemblies; indeed, whereas a kind of bureau, or office, first established at Breslaw, afterwards removed to Nuremberg, where letters, observations, &c. from members and correspondents are taken in. The academy consists of a president, two adjuncts, or secretaries, and colleagues or members. The colleagues, at their admission, oblige themselves to two things; first, to choose from subject out of the animal, vegetable, or mineral kingdom to handle, provided it had not been treated of by any colleague before; the second, to apply themselves to furnish materials for the annual Ephemerides. Each member is to bear a symbol of the academy, viz. a gold ring, whereon, instead of a stone, is a book open, and on the face thereof an eye; on the other side the motto of the academy, namquam obijus, i.e. never idle. See the history, laws, &c. of this academy, with the names of its members, and the titles of its pieces, in Ephem. Germ. dec. 1. an. 1, & 2. Pref, and the continuation of the name in the prefaces and appendices to the ensuing volumes.

Academy, Musical, consists of the managers and directors of the opera.

An academy of this kind, called the Academy of Ancient Music, was established in London in 1710, by several persons of distinction, and other gentlemen, in conjunction with the most eminent masters of the time, with a view to the study and practice of vocal and instrumental harmony. This institution, which had the advantage of a library, containing the most celebrated compositions both foreign and domestic, in manuscript and in print, and which was aided by the performances of the gentlemen of the chapel royal, and the choir of St. Paul's, with the boys belonging to each, continued to flourish for many years. In 1731, a charge of plagiarism brought against Bononcini, a member of the academy, for claiming a madrigal of Lotti of Venice as his own, interrupted the harmony, and threatened the existence of the institution. Dr. Greene, who had introduced the madrigal into the academy, took part with Bononcini, and withdrew from the society; taking with him the boys of St. Paul's. In 1734, Mr. Gates, another member of the society, and father of the children of the royal chapel, retired in disgust; and it was thus deprived of the alliteration which the boys afforded it in singing the fezzer parts. From this time the academy became a seminary for the instruction of youth in the principles of music, and the laws of harmony. Dr. Pepusch, who was one of its founders, was active in accomplishing this measure, and by the expedients of educating boys for their purpose, and admitting auditor members, the subsistence of the academy was continued.

The royal academy of Music was formed by the principal nobility and gentry of the kingdom for the performance of operas, composed by Mr. Handel, and conducted by him at the theatre in the Haymarket. The subscription amounted to 50,000l, and the king, besides furnishing 1000l, allowed the society to assume the title of Royal Academy. It consisted of a governor, deputy governor, and twenty directors.

On occasion of a contest between Handel and Corelli, one of the performers, in which the directors took the part of the latter, the academy was dissolved, after having fulfilled with reputation for more than nine years.

Academy, Arith.; as that of Peterborough, and those in England. See Academy.

Academy, Political, such as that of Paris, composed of six persons, who met on certain days each week at the Louvre, in the chamber where the papers relating to foreign affairs were lodged. Here they perused such papers as were put in their hands, by order of the secretary for foreign affairs, who acquainted the king with the progress they made, and the capacity of each, that his majesty might employ them accordingly.

Academies of Sciences chiefly denote those erected for improving natural and mathematical knowledge, otherwise called philosophical and physical academies: such as the academy secretarium nature, formed at Naples in the house of Bapalide Porto, about the year 1560, the first academy of the philosophical kind. It was succeeded by the

Academy of Lyncei, founded at Rome by Prince Frederic Cesi, towards the close of the same century; several of whose members rendered it famous by their discoveries; the celebrated Galileo Galilei was of the number.

Several other academies contributed also to the advancement of the sciences; but it was by speculations, rather than by repeated experiments on the phenomena of nature such were the academy of Belfarian at Rome, and that of Laurence de Medicis at Florence, in the sixteenth century; the sixteenth, that of Infiammati at Padua, of Vigna Juili at Rome, of Ortolani at Placentia, and of Umid at Florence. The first of these studied fire and pyrotechnia; the second, wine and vineyards; the third, gardens and potsherds; the fourth, water and hydraulic. Add to these, that of Venice, called La Veneta, founded by Frederic Badoara, a noble Venetian; another in the same city, whereof Campeggio, bishop of Feltro, appears to have been the chief; and that of Cofenza, or la Conventina, whereof Bernadie Telefo, Sertorio Quatromanni, Paulus Aquinus, Julius Cavalcanti, and Fabio Cicili, celebrated philofopers, were the chief members.

The compositions of all these academies of the sixteenth century were good in their kind, but none of them comparable to those of the Lyceii.

Academia del Cimento made its appearance at Florence some years after the death of Torricelli, under the protection of Prince Leopold, afterwards cardinal de Medicis. Galileo, Torricelli, Aggiunti, and Viviani, prepared the way for it; and some of its chief members were Saul del Buono; who, in 1677, invented the instrument for evincing the incomprehensible nature of water, which was a thick globular shell of gold; Alphonius Borelli, Candide del Buono, brother of Paul, Alexander Marfili, Vincent Viviani, Francis Redi, and count Laurence Magalotti, were some of its chief members. The latter was secretary of this academy, and published a volume of curious experiments in 1677, under the title of Saggi di Naturali Esperienze; a copy of which being presented to the Royal Society, was translated into English by Mr. Waller, and published at London, in 4to. in 1684.
The Academy of Agostina, or Imperial Academy at Florence, which comprehended within the extent of its plan all arts and sciences, holds from time to time public meetings, where any person, whether academick or not, may read his works, on any subject, and in any language: the academy receiving all with the greatest impartiality.

Academia degli Inquisiti at Bologna, incorporated afterwards into that Del Tractac in the same city, followed the example of that del Cimento: its meetings were at the house of the abbot Antonio Sampieri. Here Geminiano Montanari, one of the chief members, made excellent discourses on physical and mathematical subjects, part whereof was published in 1667, under the title of Pensei Filosofico-Matematici. This academy afterwards met in an apartment of Eufachio Manfredi; and afterwards in that of Jacob Sandri, but arrived at a higher luster, when its assemblies were held in the palace Marigli. Some writers have represented Marigli as the founder of this academy in 1675. Its motto was, Memento agitat. In 1705, J. B. Morgagni new-modelled the academy, and received Marigli into his house. Several learned men became members of it, and it was united with the Institute, founded by Marigli, in the year 1712, under the title of the Academy of the Institute. The arts of painting, statuary, and architecture, introduced by Marigli, were at first considered as distinct and separate from the plan of the Academy of Institute; but they were afterwards incorporated with it; and the university finally acquired the name of Academia Clementina, from its patron Clement XI. A printing-office was added to the academy by the munificence of Benedict XIV. In this Institute, not only the learned of each sex were admitted as members, but several ladies have been promoted to professorships. Among these we may mention the celebrated Anna Manzolini, professor of anatomy, and Laura Batti, who died in 1728, renowned for her knowledge in the abitrue sciences. Of this lady we have a particular account in the 6th volume of the Comment. Bonon. The philosophical apparatus is large. This academy, in an early period of its existence, published the Asia Bontoniana.

Academia de Raffagni, in the kingdom of Naples, called La Societa Scientifica Raffagni degli Inviaggi, was founded about the year 1540, under the name of Naviganti, and renewed under that of Speciatori by Camillo Tufano, about the year 1600. It was transformed from an academy of belles lettres into an academy of sciences, at the solicitation of the learned abbot Don Giacinto Gimma; who being made president under the title of promoter-general thereof, in 1695, gave a new fet of regulations. He divided the academicks into severall classes, viz. grammarians, rhetoricians, poets, historians, philosophers, physicians, mathematicians, lawyers, and divines, with a class apart for cardinals and persons of quality. To be admitted a member, a man must have degrees in some faculty. The members are not allow'd to take the title of academick, in the beginning of their books, without a written permission from the president, which is not granted till the work has been examined by the censors of the academy. This permission is the greatest honour the academy can confer; since hereby they, as it were, adopt the work; and are answerable for it against all criticisms which may be made of it. The president or promoter himself is subject to this law. And, that no academick is allowed to publish any thing against the writings of another, without leave from the society.

There have been several other academies of sciences in Italy, which have not subsisted long, for want of being supported by the princes. Such were at Naples that of the Invalliganti, founded about the year 1675, by the Marquis.
and putting it on a new and more solemn footing. In virtue of that regulation, the academy was to be composed of four kinds of members, viz. honorary, pensionary, associates, and eleaves.—The first class to consist of ten persons; and the rest of twenty each. —The honorary academists to be all inhabitants of France; the pensionaries all to reside at Paris; eight of the associates allowed to consist of foreigners; and the eleaves all to live at Paris. The officers, to be a president, named every year by the king, out of the clafs of honorary academists; and a secretary and treasurer, to be perpetual.

Of the pensionaries, or those who receive salaries, three to be geometricians, three astronomers, three mechanics, three anatomists, three chemists, three botanists; the remaining two, secretary and treasurer. —Of the twenty associates, two to apply themselves to geometry, two to botany, and two to chemistry. —The eleaves to apply themselves to the fame kind of science with the pensionaries they are attached to; and not to speak, except when called upon by the president. —No regular or religious to be admitted, except into the classes of honorary academists; nor any person to be admitted, either for associate or pensionary, unless known by some considerable printed work, some machine, or other discovery. —Further, no person to be allowed to make use of his quality of academist, in the title of any of his books, unless such book have been read to, and approved by the academy.

The establishment of this academy, as well as that of the Belles Lettres, was confirmed by royal patent in 1713.

In the year 1716, the duke of Orleans, then regent, made an alteration in their constitution; augmenting the number of honoraries, and of associates capable of being foreigners, to twelve; admitting regularly among such associates; supplanting the eleaves of clafs, and establishing in lieu thereof, a new clafs of twelve adjunts, to the fix several kinds of sciences cultivated by the academy; and, lastly, appointing a vice-president, to be chosen yearly by the king, out of the honorary members; and a director, and sub-director, out of the pensionaries.

In the year 1785, the king farther confirmed, by letters patent, the establishment of this academy; added clafs of agriculture, natural history, mineralogy, and physics; and incorporated the associates and adjunts, limiting to fix the members of each clafs, viz. three pensioners, and three associates. The academy, by this regulation, was made to consist of eight clafs, viz. geometry, astronomy, mechanics, general physics, anatomy, chemistry, botany and agriculture, and natural history and mineralogy. Each clafs was to remain irrevocably fixed at six members, viz. three pensioners, and three associates, besides a perpetual secretary and treasurer; twelve free associates, and eight associate foreigners; and the adjunt geographer was henceforth to be called the associate-geographer. These several clafs were filled with persons, whose names have been respectable in the commonwealth of letters. Their meetings, which were formerly held in the king's library, have since 1699 been held in a fine hall in the Old Louvre.

This academy has done great things for the service of learning, by the continuation of the memoirs, by sending professors to different parts of the world for making observations; but especially by the excellent writings they have published, either in a separate, or a joint capacity; particularly their memoirs. These have been regularly published every year, some late years excepted, ever since the establishment of the academy in 1699. To each volume is prefixed the history of the academy, or an extract of the memoirs; and, in general, of whatever has been read or said at the academy. At the close of the volume are catalogues on such academists as have died in the course of the year. A general index to the volumes has been published every ten years. In the volume for 1783, &c. the extracts from the registres are omitted, but the catalogues of distinguished men lately deceased, are continued. M. l'Abbé Rozier has published, in four quarto volumes, an excellent index of the contents of all the volumes, and the writings of all the members, from the commencement of their publications to the year 1770. M. Rouillé de Meffay founded two prizes, one of 2500, and the other of 2000 livres, which are alternately distributed every year; the subjects for the first must relate to physical astronomy, and those for the latter, to navigation and commerce. Indeed they have an advantage over most academies, in being defrayed their expenses, and even paid for time and attendance. Their history to the year 1697 was written by M. Du Hamel; and since that time continued from year to year by M. Fontenelle, under the following titles: Du Hamel Historia Regiae Academiae Scientiarum, Paris, 4to. Histoire de l’Academie Royale des Sciences, avec les Memoires de Mathematique et de Physique des Registres de l’Academie, Paris, 4to. Hilt. de l’Acad. Roy. des Sciences depuis fon Etablissement en 1666, jusqu’en 1699, en 13 tomes, 4to.

A new history, from the institution of the academy to the period from whence M. de Fontenelle commences, has been formed; with a series of the works published under the name of this academy, during the first interval. —Their motto is invent et perficit. This academy was suppressed; and, in 1793, abolished by the Convention of France; the last volume of its memoirs being that for 1790; and other institutions of various kinds have been established; see INSTITUTE.

The memoirs of the academy, abolished by the edict of the Convention, because it was a royal institution, and royalty was overthrown, are comprehended in 139 volumes in quarto: 11 from the foundation of the academy in 1666 to its renewal in 1699; 92 from 1699 to 1790; the year 1772 containing two; 11 of memoirs presented to the academy; 9 of prizes; 9 of tables to 1780; and 7 of drawings of machines.

The French have also considerable academies in most of their great cities; as, the academy at Caen, established by letters patent in 1705; the royal society of sciences in 1706, at Montpellier, which, since 1708, formed one body with the royal academy of sciences at Paris; académie des jeux floraux at Toulouse, besides the academy of sciences and belles lettres, founded in 1752; and other academies at Bourdeaux, founded in 1703; at Soissons in 1674, at Marseilles in 1724, at Lyons in 1700, at Paris in 1721, at Montauban in 1744, at Angers in 1685, at Amiens in 1705, at Villefranche in 1709, at Dijon in 1740, at Nîmes in 1682, at Bézancourt in 1752, at Chalon-sous-Maine in 1755, at Rochelle in 1734, at Beziers in 1723, at Rouen in 1744, at Metz in 1760, at Arras in 1773, &c. &c.

Academy, Royal, of Sciences, at Berlin, was founded by Frederick I. of Prussia in 1700, on the model of that of England, excepting that, besides natural knowledge, it likewise comprehends the belles lettres. A new form, and a new set of statutes, were given it in 1710; by which it is ordained, that the president shall be one of the counsellors of state, and nominated by the king. The members were divided into four classes; the first, for prosecuting physics, medicine, and chemistry; the second for mathematics, astronomy, and mechanics; the third, for the German language, and the history of the country; the fourth, for Oriental learning, particularly as it may concern the propagation of the Gospel among infidels. Each class to elect a director for themselves, who
Academy, Imperial of Sciences, at Petersburg, was projected by czar, Peter, the Great, who, during his travels in 1717, having observed the utility of institutions of this kind, determined to establish a similar one in his own country. Wolff and Leibnitz were consulted as to the regulations which were proper to be adopted. The death of Peter, however, prevented the execution of the plan which he had drawn up and signed in 1717. At the close of 1725, his design was happily executed by the munificence of the czarina, Catherine I., his wife and successor, on the model nearly of the academy of Paris, whereof the czar was a member. The academy held its first public meeting on the 27th of December, 1725, in the presence of the Duke of Holstein, and a large appearance of persons of distinction. The empress fetted a fund of 40,000 roubles for support, and 15 members, eminent for their talents and learning, were admitted and penned under the title of Professors, in the various branches of literature and science; among whom were Nicholas and Daniel Bernouilli, the two De L’ile, Butlinger, and Wolf. The academy languished under Peter II., and was again revived by the empress Anna, who added a seminary for the education of youth. At the accession of Elizabeth, the original plan was enlarged and improved by letters patent in 1747; which, besides the academy, established in connection with it an university, having regular professors, who read lectures; and the academy acquired reputation and vigour by the influx of several learned foreigners. The annual income was increased to 16,659 roubles.

The late empress took this society under her own immediate protection; corrected many of its faults, and infused a new spirit into the researches of its members. In order to encourage ingenuous professors to visit the various provinces of her dominions, she granted an extraordinary benefaction of 2000 roubles, which was occasionally renewed. These travellers were instructed by the academy, to prosecute their inquiries into the different parts of soil and water, the best methods of cultivating barren and desert spots, the local disorders incident to men and animals, and the best means of relieving them, the breeding of cattle, and especially of sheep, the rearing of bees and silk-worms, the proper places for fishing and hunting, the various minerals and plants, and the arts and trades. They were also enjoined to rectify the latitude and longitude of the chief towns, to make astronomical, geographical, and meteorological observations, to trace the course of rivers, to take the most exact charts, and to observe the manners and customs of the different people, their dress, language, antiquities, traditions, history, and religion; and, in a word, to obtain every information which might tend to illustrate the real state of the whole Russian empire. These expeditions have produced, in the course of a few years, a great variety of excellent publications on the several objects above enumerated.

The first transactions of the society were published in 1728, and entitled Commentarii Academia Scientiarum Imperialis Petropolitanae Ann. 1728. The publication was continued till the year 1757, when its transactions were called Novi Commentarii Academia Scientiarum Imperialis Petropolitanae. Of the Commentaries 14 volumes were published. The first of the new Commentaries appeared in 1759, and the 20th in 1776. About 50 volumes have been published, and two are printed, in the Latin language, every year, all of which abound with important and useful disquisitions upon various parts of science, and natural history. This academy, from the self-administration of some of its directors, was, for several years, torn by internal differences, which retarded the labours of the academicians, and put a stop
flop to the usual publication of its collections. By an enactment of the empress, the government of the academy was new-modelled; and the academy resolved to begin a new series of publications. From this era the history commences, which is printed to Vol. I. of the Nova Acta, &c., published in 1737. The academy is composed of 45 professors, besides a president and director. Each professor has a house and an annual stipend, from 200l. to 200l. There are also four chairs to which are appointed, attend the fittings of the college, and succeed to the first vacancies. The ordinary affairs are held twice a week, and public or solemn ones three in the year; wherein an account is given of what has been done in the private ones. The building, apparatus, &c., of this academy, are extraordinary. They have a fine library, containing 35,000 books and manuscripts; an extensive museum; an observatory, &c. Their motto is patria, and their device, a tree bearing fruit not ripe.

Academy of Science, called the Institute of Bohemia, was founded by count Marigli, in 1712, for the cultivating of physics, mathematics, anatomy, medicine, chemistry, and natural history. Its history was written by M. de Limiers, from memoirs furnished by the founder himself, and published at Amsterdam in 1723. The academy founded not long before by Pope Clement XI., for architecture and painting, was incorporated with this; and for its further encouragement the city purchased and appropriated to its use the palazzo Celini, that the library, museum, observatory, schools, and the apartments of the professors, might be under the same roof. On the entrance of this edifice is the following inscription: Bonomiae Scientiarum et Artium Institutionum, ad publicum totius orbis usum.

Academy, Imperial and Royal, of Sciences and Belle Lettres, at Bruglia, was founded in 1753; and several volumes of their memoirs have been published.

Academy, Royal of Science, at Stockholm, derived its origin from six persons of distinguished learning, one of whom was the celebrated Linnaeus; who, in 1739, formed a private society for reading disquisitions on literary subjects. As their number increased, it attracted public notice; and the society was incorporated by the king, in 1741, under the title of the Royal Swedish Academy. Though it has no pension from the crown, its funds have been gradually augmented to a large sum by legacies, and private donations. The only persons who receive salaries, are professors of experimental philosophy and two secretaries. Each member resident at Stockholm becomes president by rotation, and continues in office three months. The members, both native and foreign, are admitted without fees. The disquisitions read at each meeting are written in the Swedish language, and are collected and published four times in the year; and the annual publications make a volume in 8vo.

The first 10 volumes, which were finished in 1779, are called the Old Transactions; for in the next year, the title was changed into that of New Transactions. Any person who finds a treatise, which is thought worthy of publication, receives the transactions for one quarter gratis, and a silver medal of the value of three shillings. All papers relating to agriculture are published separately, under the title of Oeconomica Acta. Annual premiums in money and gold medals are distributed by the academy, principally for the encouragement of agriculture and inland trade. The meetings of this academy are sometimes attended by the king.

Academy, Royal of Sciences, at Copenhagen, took its rise from the occasional meetings of six literati, whom Christian VI. in 1742, employed in arranging his cabinet of medals. With these persons others gradually associated; and they formed a society, under the patronage of the count of Holstein, whose immediate object was to make researches into the antiquities and history of their country, and to explain them. In 1753, his Danish majesty took the society under his protection, gave it its name, endow'd it with a fund, and directed the members to extend their pursuits to natural history, physics, and mathematics. The academy has published 15 volumes in the Danish language; some of which have been translated into Latin.

Academy, Royal, of Sciences, at Lisbon, was founded in the year 1759, by the Duke de Lúcioens, uncle to the queen. The sovereign is the immediate patron, and the founder is president. Twenty-four effective members, divided into three classes, viz. natural sciences, mathematics, and national literature, form the main body of the society; and the privilege is composed of 36 free members; a small number of foreign correspondents, and a larger one of great personages of the nation, as honorary members; some veteran members and a considerable proportion of extra correspondents. Government allows them a revenue, by means of which they have established an observatory, a museum, a library, and a printing-office. The academy has hitherto directed its attention to the encouragement of many objects, which do not, in other countries, require the care of an academy of sciences. The 1st volume of its memoirs was published at Lisbon in 1797. The memoirs commence at 1785.

Academy, of Arts and Sciences, American, was established in 1780, by the council and house of representatives of the province of Massachusetts's bay, for promoting and encouraging the knowledge of the antiquities of America, and of the natural history of the country; for determining the uses to which its various natural productions might be applied; for promoting and encouraging medicinal discoveries, mathematical disquisitions, philosophical inquiries, and experiments, astronomical, meteorological, and geographical observations, and improvements in agriculture, manufactures, and commerce; and in short for cultivating every art and science, which might tend to advance the interest, honour, dignity, and happiness of a free, independent, and virtuous people. The members of this academy are never to be more than 200, nor less than 40.

Academy, Royal Irish, sprung out of a society, established at Dublin, about the year 1782, and consisting of an indefinite number of gentlemen, most of whom belonged to the university, who held weekly meetings, and alternately read essays on various subjects. The members of this society, anxious to make their labours redound to the honour and advantage of their country, formed a more extensive plan, and admitting only such names as might add dignity to their new institution, became the founders of the Royal Irish Academy, which professes to unite the advancement of science with the history of mankind and polite literature. The first volume of their transactions for 1787 was published in 1788, and the publication has been occasionally continued. We shall here add, that a society was formed in Dublin, similar to the Royal Society in London, as early as the year 1653; but the distracted state of the country was unpropitious to the cultivation of philosophy and literature. The plan was resumed about the beginning of the present century, and the Earl of Pembroke, then Lord Lieutenant, was president of a philosophical society established in Dublin College. In the year 1748, there was instituted a Physico-historical Society; of which two volumes of minutes are extant; but this society soon declined.

Academy, of Sciences, at Minsk, was established in 1763 by Charles Theodore, elector Palatine, according to a plan of the learned Schopffin, and divided into two classes, viz. the Historical and Physical. The latter class was subdivided, in 1780, into the Physical, properly so called, and Meteo-
Meteorological. The papers of the academy have been published in 11 volumes, under the title of Acta Academiae Theodoro-Daltoniae. The Meteorological observations, from 1728 to 1782, form 12 volumes 4to, with the title of Ephemerides Societatis Meteorologicae Publinae.

For a further account of similar institutions, see Society.

Academy, is also used among us as a kind of collegiate school or seminary; where youth are instructed in the liberal arts and sciences in a private way; now indeed it is used for all kinds of schools.

There were two public academies in the Roman empire; one at Rome, founded by Adrian, in all which the sciences were taught; and the other at Berytus in Phoenicia, which was pristly denoted for the education of youth in the science of law. In consequence of the protection that was given to the sciences in the 17th century, academies were erected in various parts of Europe, peculiar privileges of several kinds were granted to the youth that frequented them; and these learned societies acquired, at length, the form of political bodies; i.e. they were invested with a certain jurisdiction, and were governed by their own laws and statutes. In the public schools or academies that were founded at Padua, Modena, Naples, Capua, Thoulouze, Salamanca, Lyons, and Coligny, the application of the youth was restricted to certain branches of learning, and thus the course of academical education remained imperfect. The academy of Paris, which surpassing all the rest, both with respect to the number and abilities of its professors, and the multitude of students by whom it was frequented, was the first learned society which extended the sphere of education, comprehended all the sciences, and appointed masters for every branch of education. Hence it was distinguished, before any other academy, with the title of University, to denote its embracing the whole circle of science; and in course of time, other schools of learning were ambitious of forming themselves upon the same model, and of being honoured with the same title. In the 16th century, academies were founded by the Lutherans at Jena, Helmholdt, and Altorf, and by the Calvinists at Franeker, Leyden, Geneva, under Calvin and Beza, and many other places.

Frederic I. king of Prussia, established an academy in Berlin in 1703, for the education of the young nobility of the court, suitable to their extraction. The expense of the students was very moderate, the king having undertaken to pay the extraordinary. This illustrious school, which was then called the Academy of Princes, has now lost much of its first splendor.

The Romans had a kind of military academies established in all the cities of Italy, under the name of Campi Martii. Here the youth were admitted to be trained for war at the public expense. The Greeks, beside academies of this kind, had military professors called Tadici, who taught all the higher offices of war, &c. &c.

We have two royal academies of this kind; one at Portsmouth, for teaching navigation, drawing, &c. which may be styled a naval or maritime academy, founded by George I. in 1722, and under the direction of the board of admiralty, which gives salaries to two masters; and another at Woolwich, where youth are taught fortification, gunnery, and the branches of the mathematics as are necessary to qualify them for engineers. This was established by George II. in 1741, and is under the direction of the master-general and board of ordnance. None are now educated in this academy, but the gentlemen-cadets, to the number of 50 or 100. The masters are now 12; viz. a professor of mathematics, and two other mathematical masters, a professor of fortification and an assistant, two drawing masters, a French master, with masters for fencing, dancing, and chemistry. This institution is important and useful, and its establishment has been at the expense of the royal and public funds.
ACALANDRA. See Calandra.

ACALANDRUS, in Ancient Geography, a river falling into the bay of Tarentum, not far from the Metapontum. This river is mentioned by Pliny (Hist. Nat. l. iii. c. 10. tom. 1. p. 165.), and by Strabo, (Geog. tom. 1. p. 429.) It is now Fiume de Rofeto.

ACALEPHIS, a nettle. It also signifies a certain fish, the flesh of which is very tender. Likewise a tea-bowl, mentioned by Nicander, and a tea-plant, mentioned by Celsus.

ACALLOT; an abbreviation of Acalotl.

ACALYPHA, in Botany, a genus of plants belonging to the monoea monolaza claus, and the natural order of Tricera, called by Boerhaave, and others, Rancocarpus or Thrift fruit. It derives its name Acalypha from its not being pleasant to handle, i.e. from Acalypha, a name for this plant. Its characters are these: the male flowers are crowded above the female ones; the calyx is a three or four-leaved perianthium, with roundish, concave, equal leaflets; it has no corolla; the stigmas have from eight to sixteen filaments, which are short, curved, and connected at the base, with roundish anthers. The female flowers are fewer, and received into a large divided involucrum. The calyx is a three-leaved perianthium, with lobate, concave, converging, small, permanent leaflets; there is no corolla; the pistil has a roundish stem, three styles, branching, usually tri-partite, and long, and the stigmas are simple; the pericarpium has a roundish, three-furrowed, three-celled capsule, the valves gaping two ways, and the seeds are solitary, roundish, and very large. There are fourteen species. The first sort, or A. Virginica, grows naturally in Virginia, several parts of North America, and also in Ceylon: the second, or A. virginia, is a native of the warmest countries, and grows plentifully in Jamaica, and its leaves resemble those of the annual nettle, and sting as much: the third, or Indian Acalypha, was discovered in great plenty by Dr. Houltoun at La Vera Cruz, and is also found upon dunghills in the East Indies, and its leaves are like those of Mercury, whence these plants have sometimes been called three-fac'd Mercury: the fourth, or Viburnum Acalypha, is found in the woods about Carthagena: the fifth is a native of South America, whence it has its name: the rest are all natives of the West Indies. These plants have no beauty to recommend them, and are preferred in some botanical gardens merely for the sake of variety. Martyn's Miller. In the last edition of Linnaeus's Syst. Nat. by Gmelin, the Acalypha is made a genus of the Monole of dodecandra claus and order, and includes twenty-one species.

ACALZEKE, a town and fortress of Alsatian Tartary. N. lat. 41° 30'. E. long. 44° 14'.

ACAM. See Acam, and Akam.

ACAMACU, or ACAMARY, in Ornithology, the Brazilian name of the crested Moucherolle of Buffon; the crested Brazilian Flycatcher of Buffon, and the crested Brazilian Todius, or variety of the Todius Paradisus of Gmelin, and of the Musicara Paradisi of Linnaeus. It is found in Africa and Madagascar.

ACAMANTIS, in Ancient Geography, the name of the island of Cyprus, taken from its western promontory, called Akamas and Cacamo, now Cape Nifario, or Epifanio, where there was formerly a town of the same name, now a village, called Cufco. The wood in this part of the island (says Mr. Bruce, Travels, vol. 1. p. 42.) remains as thick and impervious as at the first discovery; and in these woods large flags, and wild bears of a monstrous size, shelter themselves in perfect security.

ACAMAS, in Ancient History, the son of Thecus, who followed the other Grecian princes to the siege of Troy, and was deputed with Diomedes to relieve Helen. Laodice, Priam's daughter, had a son by him, called Munius. He was one of the heroes who were concealed in the wooden horse. One of the tribes of Athens was called Acamantides from him, by the desire of the oracle; and he founded a city in Phrygia Major, called Acamantium. Homer (Iliad. l. ii. 823, and l. xiv. 475.) mentions two other heroes of this name; one a Thracian prince, who came to succour Priam; and another, a son of Antenor.

ACAMATOS, among Physicians, means that disposition of a limb, which is equally distant from flexion and extension.

ACAMBOU, in Geography. See Acaumbou.

ACAMEA, in Ancient Geography, a town of Asyria, in the province of Sittacene.

ACANACEOUS, see Acanthaceous.

ACANGA, in Botany. See Bromelia.

ACANGIS, i.e. Razorers, or Adventurers, a name given by the Turks to their hussars, or light troops, who are generally sent out in detachments to procure intelligence, harass the enemy, or ravage the country.

ACANNY, or Akanni, see Achem.

ACANOR, a particular sort of chemical furnace. See Athanas.

ACANOS, in Botany. See Onopordum.

ACANTHA, formed from axan, point, and abos, flower, in a general sense, a spine or prickle, chiefly of plants of the thorny kind.

ACANTHA, in a more particular sense, denotes a spine, or quill of certain fishes, as the echinus marinus, or sea-hedge-hog. Hence the thorn-back, a species of the raja, is by some called acantbias, from the two prickles on its back. Ron. elet. de Pfeib. lib. xii. c. 2.

ACANTHA, among some Anatomists, is applied to the hind or posterior protuberances of the Vertebrae of the back; forming what we call the Spina dorsi.

ACANTHABOLUS, compounded of axan, a thorn, and bolus, to cafl away, in Surgery, an instrument, whereby to extract foreign bodies, which by the sharpness of the points have penetrated, and entered any part of the body.

The acanthabolus is the name with the instrument which is otherwise called adspilla. Its chief use is for extracting fish-bones, or the like, sticking in the esophagus; as also the fragments of weapons, bones, hair, &c. remaining in wounds. Its figure resembles that of a pair of pincers; sometimes it is also made crooked, for more commodious application to the faucies. Celsius, lib. vii. c. 30.

ACANTHABOLUS is also sometimes used for an instrument, whereby people pull out the hairs from their eye-brows.

ACANTHACEOUS, among Botanists, a term applied to a class of plants, that are armed with prickles; popularly known under the name of the Thistle kind.

ACANTHALZUCA, the name of echinopus, or globular Thistle.

ACANTHARIS, in Entomology, a species of the Cimex, in the Linnaean sytem, and of the Reduvius, in the arrangement of Fabricius, the characters of which are, that it has a spinous thorax, and a ciliated abdomen, with spines. It is found in Jamaica.

ACANTHE, in the Materia Medica of the ancients, a name given to the plant we now call the Artichoke.

ACANTHA, in Botany, a name given by some of the Greek writers to a plant called also lenuncalus, and by the Arabian physicians bonkun. It was a prickly plant, whose roots were somewhat like those of the cypress, and composed of several knobs or joints, and of a bitter taste. It was brought for medicinal use from the East Indies, and
A C A

Some parts of Arabia, and was the root of the angulla of Avicenna and others.

ACANTHIA, in Entomology, a genus of the class of Ryn- gotis, in the distribution of Fabricius, and forming a division in the arrangement of the Cimex by Gmelin, in his edition of Linnaeus. The acaenitha of Fabricius have no lip, and Gmelin comprehends under this division the affe the co- leptra, and the membranaci.

ACANTHIAS, in Ichthyology, a name given by some authors to the fish, the skin of which is used by our arti- ficers in polishing, and called by them simply fish-skin. In the Linnean system it is a species of Squalus, and the picked dog-fish of the British zoology. A variety of this is mentioned by Gmelin, and described under the name of Squalus Pernandinus. Its dorsal fins are quite like the other, and its body round and ocellated. It is found in all seas, and rarely in the Baltic. Its length is about three and a half feet. Acanthias is also a species of Gasterostis, with four small spines before the dorsal fin, and three rays appertaining to the branchiostegous membrane. It is found in the Danish seas. See Galeus Acanthias.


ACANTHINE, in Ancient Geography, an island men- tioned by Ptolemy, in the Arabian gulph on the fide of Egypt. Acanthine, acaenitha, denotes a thing relating to, or re- sembling the herb acanthus.

In this sense, we read of acaenitha rusticam, acaenitha garment, et cetera, which we have two different explanations. Some understand by it a kind of embroidery, wrought in imitation of the Egyptian acaenitha or thorn, whose small spines are much interlaced. Others will have it a peculiar kind of silken stuff, made of the lanugo, or down of a plant of the thistle kind, growing in Sicily and the East. Plan. Hift. Nat. i. xxiv. c. 12. Hard. Not. tom. ii. p. 343.

Acanthodium lignum is used by some writers for brazil wood.

Acanthion, among Naturalists, a plant of the thorn, or rather of the thistle kind; whole down, being cleaned from the prickles, was manufactured into a kind of stuff, not unlike silk. Plan. ubi supra. See Onopordium.

ACANTHIS, in Ornithology. See Goldfish.

ACANTHOCEPHALUS, in Natural History, a name given to the Echinorhynchus carpus, a species of worm which is found in the intestines of the carp.

ACANTHOPTERYGII, derived from acaenitha, a thorn, or prickle, and apergy, a fin, in Natural History, a term used by Arcted to express one of the general classes of the families of fishes; the character of which is, that the rays of the fins are bony, and some of them prickly at the extremities.

ACANTHOS, Acanthus, or Achatus, in Ancient Geography, a town of Egypt, near Memphis, now Bifalata; or, according to Savary (v. i. p. 484), corresponding with the present Dachhour, whether the waters of the Nile are conducted by a canal, and near which is the ruin of the temple of Oliris, and to the west of it a great pyramid. (Strabo, tom. ii. 1162.) Also a maritime town of Macedonia, a colony of Andrians; now Erifso: near which was shewn Xerxes's ditch of seven stadia, in order to separate Mount Athos from the continent, and convey his ships, without doubling Athos, into the Singitic bay. Herodotus. i. vii. c. 121. &c. Pliny, Nat. Hift. tom. i. p. 202. Acanthus is also a town of Epirus.

Acanthus, in Natural History, a name given to the Echinorhynchus candidus, which is found in the intestines of many different species of fish.

ACANTHUS, Bear's Breech or Brave-Ursine, in Bot- any, a genus of the dicotyledonous class of which the generic characters are these: the calyx is a perianthium, with leaflets in three alternate pairs, unequal and permanent; the corolla is single-petalled and unequal, having a short tube closed with a beard, no upper-lip, very large under-lip, which is flat, straight, very broad, three-lobed, obtuse, and of the length of the upper-lip of the calyx; the flaminia have four filaments, subulate, shorter than the corolla, the two upper rather longer, recurved, and incurved at the top; the anthers are oblong, compressed, obtuse, the lateral ones parallel, and villous before; the pistillum has a conical germ, filiform style, of the length of the flaminia, and two acute lateral flaminia; the pericarpium is a subovate pointed capsule, two-celled and two-valved, with a contrary partition, alternate claws, curved, and fallened to the partition; the seed is ovate, and gibbous, and single; sometimes double. There are ten species: i. The smooth acanthus, with white flowers, proceeding from about the middle to the top of the stalk, is the species used in medicine under the name of Branca ursina or Brankursina. It is a native of Italy, about Naples, of Sicily, Provence, and the islands of the Archipelago, and is cultivated in our gardens, and flowers in June and July. Turner (in his Herbal in Hort. Kew.) informs us, that it is cultivated in Sion gardens so long ago as the year 1551. The leaves, and particularly the roots, abound with a soft, infipid mucilage, which may be readily extracted, either by boiling, or by infusion. Rectified spirit, digested on the leaves, extracts from them a fine deep green tincture, which is more durable than that which is communicated to spirit by other herbs. Brank ursina is seldom or ever used medically in this country. But where it is common, it is employed for the same purposes to which the Althae or Marshmallow, and other mucilaginous vegetables are applied among us. In foreign countries the cow-partner is said to be substituted for it, though it possessing very different properties. The last edition of Linnaeus by Gmelin, contains twelve species.

The ancients have not only called the herb bear's breech by this name, but also a thorny tree growing in Egypt.

An accurate examination of the ancient writers will, how- ever, shew very plainly, that they meant two very different vegetables under this name. Virgil has two very different plants under the same name. The acanthus with which he adorns the handles of Alcmeon's cups, in the 3d Eclogue, and places in the Corycian's garden, in the 4th Georgic, and the Egyptian acanthus of Theophrastus, are two very different plants. Virgil mentions another acanthus as being an ever-green plant, and producing berries, or a small round fruit; Icaca simper frondentis acanth, is his words; and Theophrastus tells us, that his Egyptian acanthus is a prickly tree, and bears pods like those of beans. The Greek sculptors adorned their works with the figure of the latter; as the Gothic did with that of the former, which they repre- sented not only in their capitals, but also in other ornaments. It is plain, that the acanthus of Theophrastus is the acacin, a tree, from some species of which we have the gum arabic now in use; and the acanthus of Virgil, mentioned in the places above cited, is a garden herb, described by Dioscorides, under the name of Acanth, which is supposed to be the species of acanthus already noticed, though Lin- naeus takes it to be the fourth species. The other acanthus, mentioned by Virgil in the fourth Eclogue, and second Georgic, is the acanthus of Theophrastus. See Professor J. Martyn's notes on Virgil.

The leaves of this species of acanthus accidentally growing round a basket covered with a tile, gave occasion to Cali-
CALCUTTA, the capital of the Province of Bengal.

ACAPERCO, a town and harbour in the Province of Tabasco, on the gulf of Mexico, called Port Marquis; where the ships from Peru generally run in contraband goods. See Tab. Archit.

ACANTHUS, in Architecture, an ornament in the Corinthian and Composite orders; being the representation of the leaves of an acanthaceous plant, in the capitals thereof. See Tab. Archit.

ACANTHUS, in Ornithology, the name given by Gmelin to the Fringilla spinus of Linnaeus, or Sieben of others. See SPINUS.

ACANTHUS, in Ancient Geography. See CHALCIDICA.

ACANTHUS, in Entomology, a species of Papilia, in the division of Phlebus, with entire brown wings, blue bands underneath, and yellow hind; found in Surinam.

ACAPAPA, or Acapulco, a town in the province of Chiapa, in New Spain. It is situated on the Tabasco river, five leagues north-west from Chiapa.

ACAPAN, or Acaparami, a town of Afa, on the Enixie sea.

ACAPATLI, in Botany, a name used by some authors for the plant which produces the long pepper, used in medicine. De Lact. Ind. Oct. p. 231.

ACAPNISTON, an species, from a and κεῖσκεν, sink, a term applied to the excellent honey of Hymettus, in Attica, both by Pliny, l. xii. c. 167, and Strabo, tom. l. p. 613, from the mode of its preparation.

ACAPHON, an species, a name of the Sampsucus, or Macroram; also of dry wood.

ACAPULCO, in Geography, a considerable town and harbour in Mexico, situated on a bay of the South Sea, and distant from the city of Mexico about 210 miles, south-east. The haven is large and commodious, and capable of containing several hundred ships; and the entrance is secured by a small island, which runs across it, and forms at each end a deep channel of sufficient breadth for the largest vessels. The only inconvenience is, that ships must enter by the sea-breeze in the day-time, and go out by the land-breeze in the night, which seldom fails to succeed. The harbour is a mean and ill-built town, and derives its importance and extent from the great trade carried on with the East-Indies and Peru, and the number of warehouses and habitation for strangers which this commerce requires. The houses are highly contracted on account of the frequent earthquakes to which this country is exposed; and good buildings are the less necessary, as the principal inhabitants retire from the sea-coast, when business does not demand their immediate attendance. Besides, the climate is exceedingly unhealthy, and very prejudicial to strangers. Upon the arrival of the galleons, the town is populous and gay, being crowded with the richest merchants of Mexico, Peru, and even of Chili, who provide themselves with tents in the vicinity of the town, and form a kind of large encampment. For the trade of this town, see Manila Galleon. Opposite to the town, on the east side, is a strong castle, fad to be provided with forty pieces of cannon, and the platform at the end of the town is also mounted with guns: and ships ride near the bottom of the harbour, so that this place is not so easily accessible as some have imagined. The port is a bay surrounded with very high mountains. Two islands, off the fort, parallel to the port, are to be seen on the landboard, and within the harbour is a small island near the shore, on the landboard. Within a league of the mouth of the town, is a very good harbour, called Port Marquis, where the ships from Peru generally run in contraband goods. W. long. 102° 26'. N. lat. 17° 22'.

ACARA, in Ichthyology, the name of a fish caught in the fresh waters in the Brazils, and esteemed a very delicate and well-tasted one. It seldom exceeds three or four inches in length, and has a head like the Panch. Its mouth is small, and its jaws rough like a file. It has one long back-fish, which is supported by a great number of rigid and prickly rays, and reaches to the tail. Its scales are large; its back is of a glossy brown; its sides and belly white; and its tail is not forked. It is a large black spot on the middle of each side, and another near the tail. Its fins are all brown. Maregrave.

ACARAY, the name of a fish caught on the Brazilian shores, and by some called allor gurubak. It grows to three feet in length, and is of the shape of our carp. Its upper jaw is furnished with an even range of sharp teeth, like little needles. Its upper jaw has two very long ones, and bended thence, a multitude of other very short ones. Its eyes are large, and their iris red. Its tail is broad, and a little forked. Its scales are of a moderate size, and of a silver hue, with an admixture of purple. Its belly, and the under part of its head, are wholly white; and its fins of a fine pale red, except those under the belly, which are white, with a slight edge of red. It is eaten in Brazil, both fresh and salted. Maregrave.

ACARAI, in Geography, a town of Paraguay, in South America, built by the Jesuits in 1624. N. lat. 26°. W. long. 51° 5'.

ACARAMUCU of Maregrave and Willughby, in Ichthyology, is the Dalestus Monoceros in the Linnaean system by Gmelin. See Monoceros.

ACARAPA, the name of an American fish, called also by some bremer. It has a somewhat broad and flat body, covered with large scales of a fine silver whiteness. It grows to a foot in length, and to four or five fingers in breadth. It has a large mouth, but without teeth; and its tail is forked. It has one long black fin, the anterior rays, or naves, of which are rigid and prickly, the hind naves soft and
and flexible. The fins are all like the rest of the body, of a pure white. This fish seems to be a kind of **smaris**. Maregrave.

**ACARAPINIMA**, the name of a Brazilian fish, of the **cantbrarbus** kind, and seeming to be of the same species with the **cantbrarbus** of the Mediterranean. Ray.

**ACARAPITAMBA**, the name of a fish caught in the Brazilian seas, of an oblong figure, resembling the **mullet**, and growing to two feet or more in length. Its mouth and teeth are very small. It has one long fin on the back, running very nearly to the tail, which is supported by rigid and prickly rays. Its tail terminates in two oblique horis. Its scales are large, and of a purplish colour, with a fine admixture of blue; and along the middle of each side there runs, from the gills to the tail, a very broad and beautiful gold-coloured line. Its back, down to this line, is variegated also with small gold-coloured spots; and the sides under the line are very beautifully variegated with small and fine longitudinal, but short gold-coloured lines, of a somewhat paler colour than the broad one. Its belly is white, and its fins yellow. Maregrade and Willughby.

**ACARAPUCU**, the name of a Brazilian fish, caught in the fresh waters, and growing to eighteen inches in length. It is of a rounded body; and its mouth is small, and not prominent. It has lips, which it can hide, or suffer to appear, at pleasure, and has no teeth. Its tail is long and forked; its scales are all of a silvery hue. On the back it has a fine golden gloss, shining in the whites; and on the sides five or six large blue spots. Its back and side fins are of a pale blue, as is also the tail: the belly fins are yellowish. It is a well-tasted fish. Maregrave.

**ACARANA**, of Maregrade, Willughby, Ray, and Jonston, is the **chretodon nigricans** of Linnaeus, with a sub-bifid tail, nine spines in the dorsal fin, and a lateral spine on each side of the bifid tail. Its eyes are large, with a silvery iris; the teeth in each mandible are from ten to sixteen, cymid, and narrow in the lower part, and above wider, very hard, sub-pellicular, and disposed in a series, the fore-teeth being the longest; the tongue is short and thick; the operculum of the gills is long and narrow; the lateral line proceeds from it in a direction parallel to the back: most of the fins have ramose rays; the pectoral and caudal are crenous, the ventral black; the dorso and anal white at the base, and in other parts of a dullish hue, and they have bifurcated radii. This fish is found in the Indian, Brazi, and Red Seas, and grows to the length of two feet; it is covered with small scales, blackish above, and whitish beneath, and brown on the sides. It feeds on young crabs and teleosteous fish.

The small black **Acarana** of Willughby, is the **chretodon occulus** of Linnaeus, with an entire tail, eight spines in the dorsal fin, and four white arches, and is called by Maregrade and Ray, **guapera**. The **Acarana altera major** of Willughby and Ray, is the **chretodon hiliris** of Linnaeus, with an entire tail, fourteen scales in the dorsal fin, spinose opercula, and ciliated scales. This fish is found in India; it is of a crenous colour, white beneath, the iris of the eyes is reddish; the mouth very small, the lips flaring, the mandibles equal, the aperture of the gills large, the operculum furnished with three spines, the lateral line near the back and parallel to it, the anus in the middle of the body, and the fins brown at their edge, with ramose rays, and a black ring before the dorsal fin.

The **Acarana maculata** is the **chretodon bicolor**. It is allied to the perch, of an oblong shape, thick body, part of which, and the tail, are white, and the other parts brown. It is found in South America and India. Linna. Syll. Nat. by Gmelin, tom. i. pt. 3. p. 1243—1245—1253—1258.

**ACARI Port**, in Geography, lies on the coast of Peru. Vol. I.
Acaron, in Geography. See Accaron.

Acaron Bay. See Berkeley’s Sound.

ACARUS, the Tick or Mite, in Natural History, so called, probably from a Latin word meaning to creep, because it is deemed so small that it cannot be cut, is a genus of insects belonging to the order Acarina, in the Linnean system, and to the eighth class called amphipoda in the distribution of Fabricius. The distinguishing characters of this genus are, that the mouth has no proboscis, that the haustellum orucker is included in a bivalve, cylindrical sheath; that the feelers are two in number, equal, and of the length of the haustellum; that the eyes are two, placed at the side of the head, and that it has eight legs. Fabricius reckons forty, and Guinie, in the left edition of Linneus’s system, eighty-two species; of which, some are inhabitants of the earth, others of water; some live on trees and plants, others among stones, and others on the bodies of other animals, and even under their skin. They are as follow: viz. elephasminus, with an orbicular, deformed, livid body, and a black ovoid spot at the base, found in India: Egyptius, ovated and black, with a white margin, a native of Egypt: Reduvis: Indus, oval and ferruginous, with a black ovated spot at the base, found in South America and India: Americanus, ovated and ruddy, with white scutellum and joints of the legs, found on the cattle and horeses of America: Sangiugus: Ricinus orTick: crayfishes, with the second pair of legs very thick, nimble, gregarious, and found in the foil of Europe, and frequently in that of gardens: Ulterus, with an angled thorax and ungulate legs longer than the body, called the bat-louse, and found on the murine bat: phaetonius, found on various sparrows, and called the sparrow-louse: Noctarius, of a yellow colour, and with its first legs very long and adapted to swift motion, found on mushrooms: Aspidioidea, red, with the fore-legs long and fit for running; and the hinder part of the abdomen terminating in two horns; and lodging in the putrefying wood of Europe: Coleoptera, black, with acute-angled sides, found under the bark of trees in Europe: tibialis, of a greenish-yellow colour, with a brown spot on each side of the abdomen, found on plants in Europe that are not much exposed to the wind, or placed in a hot-house, which it penetrates with its sting, and suffocates, and frequent on the leaves of the lime-tree in autumn: Siri or Mite: Ibis, with an ovated, obtuse abdomen, and the hinder part having four declining bristles as long as the body, found in four cream and unwashed milk-veils: Vaporis, with two bristles to the legs, and four horizontal bristles at the hinder end of the ovated abdomen, of the length of the body, found in beer-casks, &c.: Vorticulus, with very long lascious legs, and the two fore-legs short, suffocated by long to be the cause of the itch, and infecting the linseed of this disease, but by others not to be sufficiently distinct from the A. scabia: geniculatus, black, with small globule joints of the thighs, found on the dead branches of trees; vicarius, with a red hairy abdomen, the hinder part obtuse, and the anterior tubercle of a paler colour, a native of Surinam and Guinea, and lately introduced into the practice of dicing: Aquaticus, with a fangnosed deformed abdomen, covered with a velvet down, obtuse behind, found swimming briskly in the fresh waters of Europe: Solferinus, with an abdomen like that of the former species, and found in dry situations in Europe and America, generally under the surface of the earth, and sometmes among hay: Baccharum, with a dilated red abdomen, and sides of a darker hue, found on berries, and particularly currants and gooseberries: Muscorum, with a red abdomen, and hinder legs very long and siliform, found on the mofles of Europe: Batatas: Gymnoperorum, with a red abdomen, and two crimson-coloured spots on the sides, found on bees, wasps, the heliobius, atlas, and other insects: Coleoptera, with an ovated red body and whitish auras, frequent on beetles, whence the common black beetle is sometimes called the lousy beetle: Rupipers, brown, with a dorso-fal line of two colours, frequent under the flones of Europe: longicornis, red, with bold antenna longer than the rostrum, found in the rocks of Europe: littoralis, ovated and red, with a tubulated extended rostrum, found among the rocks on the shores of Europe: angulatum, of a reddish-brown colour, with a tubulated globe, smooth, uninflated abdomen, gregarious, and moving slowly on different fungi: Tenebola, tuboglobule, of a black-blue hue colour, found on the Tenebola juniperana, scaber, deformed and ash-coloured, and rough sides, found in the earth at the beginning of spring: Tenebola, red, with a double brown dorsal line, and in the fore-part bifurcated, found swiftly running on the willows: Tenebola, yellow, with a red spot on the sides of the thorax, found on the galls of the willow: Tenebola: grandis, ovated, somewhat deformed, of an olive-brown colour, with a blackish scutellum, and the base and apex of a golden copper colour, found on the animals of South America, and supposéd to be the same with the elephantinus: undatus, obturated and black, with waves of white on the sides, and a black spot, found in New Holland: Libicola, ovated and brown, with a thick margin, found at Leipick: Iguana, ovated and spotted with gold, with the margin of the abdomen fringed and somewhat jagged, fixing itself to the throat of the Acerta Iguana: Ceylon, ovated, and variegated with red and white, with the hinder margin elevated and fringed, a native of Ceylon: lineatus, ovated and ferruginous, with two white wavy lines, found in America: Unculated, ovated and brown, with two small lines and a palmed spot on the hinder part of a green and gold colour, a native of America: Trichodes, ovated and ferruginous, with a brown thorax: Polylium ovated and brown, with the antennae and legs of a pale white: Iyipass, ovated and black, with ferruginous legs and white joints, found in Barbary: Hirundo: vibrans, roundish, tellaceous, and without spots, with the fore-legs longer than the others, found in Ceylon: donoeficus, white, with two brown spots, an ovated body contracted in the middle, very long hairs, and equal legs, found in the houses of Europe, but supposéd not to be different from the Ithaca: scabia, white, with reddish legs, and the hinder having four very long bristles, and much less than the Ithaca, and found in the uceres of persons infected with the itch, exciting irritation, and supposéd to be either the cause, or rather a symptom of the disease: Ithaca, roundish and whitish, with a red abdomen, found in the fucre of the Norwegian seas: Phalangi, ovated and red, with an extended rostrum and long legs, frequent on the phalangii and spiders: Phalangi, ovated, and behind acuminated, with the legs falsculated at their apex, found on the phalanx of the Southern Ocean: Fucorum, pale-coloured, with two winding black lines and the hinder legs very short and bent, found on the scales of the seal: Rupipers, ovated and white, with ferrugious legs, found in Europe: Ibelina, with the first and fourth pair of legs longer, and the second thick, found on the lower surface of the Ibelin: Ibelina, with the second legs very thick, a tellaceous body, and a pale-coloured annus, found on carcaces: Breviaria, with four bristles in the hinder part, and as many on the sides: Conferose, ovated and brown, with the second joint of the legs small, and the third furnished at its apex with a long bristle, found in the filaments of the conferva under water, but drying out of the water: Cadaverum, with a body formed with two lobes and four long bristles to the hinder part of the body, found on the carcasses of insects: Defractor, ovated, with many long bristles.
brillies to the anus, and one to the legs, found on the exuviae of insects in moist places: eruditus, with the first pair of legs very thick, and clawed, and the second having two very long brillies at their apex, found in books that are kept in moist places: elongatus, with the hinder part of the anus emarginated, found on the *Acaliata arvensis*: gnominium, red, with the legs of the first pair very long, and the hinder part of the abdomen jagged, found on the leaves of griffes: appendiculatus, subglobose and crimson-coloured, with long legs of a paler hue, and the hinder legs longer, found under the *Rheum palustris*: eulis, ovated, fuscous and red, with equal legs and several brillies, found swiftly running on the vine: piger, red, with paler legs, and the hinder part of the abdomen furnished with small brillies, found upon mofs: denticulatus, with four teeth to the anterior part of the body, found under garden-pots: feuadinus, with a smooth abdomen, lodged in the soil at the commencement of spring: rubens, red, ovato-oblong, with indefinite legs, found under mosses: promagnum, red, globose and very smooth, scarce visible to the naked eye, found in the soil in spring: musi, conicous, hairy and black, found on mosses: lindacoum: folia, ovated, greenish, and naked, with all the legs equal, found on the leaves of various plants in summer: putrescentia, ovated, greenish, and brilly, with unequal legs, found in the earth: carduelis, ovated, greenish and blackish, naked, with unequal inflated legs, found on the fringilla: cocinens, ovated and of a crimson-colour, with a whitish body, lodged on various insects: vegetans, crislaceous, brown, emarginated and convex, and plain beneath, found on various insects of the coleoptera order: fuligo, red, with pale legs and feelers, with long brillies scattered over the body and legs, found slowly moving on the leaves of the black elder: muscarum, found on the musc: acarum, hemispheric, pale-coloured and smooth, with equal legs, found on the acarus crophyles: carduelis, ovated, downy and red, black below the legs, and furnished with an ovated black scutellum, found on mosses in the grove adjoining to the Hague.—Aritrole, (Hist. Anim. i. v. c. 32: Oper. tom. i. p. 857. Ed. Du Val.) mentions the acarus bred in wax, as the least object of human sight. These insects, which are often very troublesome on plants and in hot-houses, may be effectually destroyed by the mixture recommended for destroying those on the Pine-apple. The following mixture will be also equally efficacious: Take two ounces of soft green soap, one ounce of common turpentine, and one ounce of flowers of sulphur; pour upon these ingredients a gallon of boiling water, and work the whole together with a whisk, and let the mixture be used warm. This mixture may also be of use for preventing the mildew on the peach and apricot. However, this method should never be practiced on fruit-trees near the time when their fruits are ripening. A strong ley made of wood-ashes will likewise destroy the *Acaris*: but plants are greatly injured by this, and other briny and spirituous compositions. The *Acaris* may also be destroyed in plants, by brushing them with a common painting brish, by often drollling them with flowers of sulphur, by keeping a hot-house in a moist state, by dipping the tops of plants frequently in clear water in which flowers of sulphur and tobacco have been infused, in the hot summer months, and always keeping the hot-house clean.

*Acaris* is the name given by Brown (Jam. 418.) to the *Pulex penetrans of Linneus*. It is also a species of the *Trichoda*, the order of *Istusoria*, and class of *Worms*.

**ACASADISTAN, in Geography, a river in the province of Vera Paz, in Mexico, whose source is not far from the South Sea, which runs into the Golfo Dulce. There is a town of the same name situated on its banks.**

**ACASATHULA, a sea-port situated on a point of land, in the province of Guantanamo Proper, in Mexico, on a bay of the South Sea, about four leagues from Trinidad. It receives the greatest part of the treasures from Peru and Mexico. There are three volcanos in its vicinity. N. Lat. 12° 50', W. Long. 93°.**

**ACASTA, in Entomology, a species of Papilio, found in India, with roundish wings, having five transverse spots, and brown spines, and the under part yellow.**

**ACASTA, in Mythology, one of the nymphs, called Oceanides.**

**ACASTUS, in Classical History, the son of Pallas king of Thrasy, and one of the most famous hunters in his time. He married Atalanta, according to Suidas, or Allydamus, as his annotator calls her, who, falling in love with Pelusia's son-in-law, and not having her wishes gratified by him, accused him to her husband of a rape, upon which he made war against Acastus, and slew his wife. Suidas, tom. i. p. 365.**

**ACATES, in Entomology, a species of Papilio, with black wings, the fore-wings having a fawny band, and the hinder green beneath, marked with yellow ridges; found in Surinam. It is also a name given by Cramer to the *Papilio Phidias*.**

**ACATALECTIC, ACATALECTICUS, formed of the privative *and* and *p* *a* *t* *a* *l* *e* *c* *t* *i* *c* *us*, from *p* *a* *t* *a* *l* *e* *c* *t* *i* *c* *u* *s*, to cease or end, in the *Ancient Poetry*, a term applicable to such verses as have all their feet and syllables, and are in no respect lame or defective at the end. In the following strophe of Horace, the two first vers are *acatalectic*, and the last *catalectic*: *Solvevit acer hymnu, gratu vice Veris & Frevis:* *Trobunque ficus macine carina—* **ACATALEPSIA, ACATALEPSY, compounded of the privative *and* and *katalepsia*, derived from *kata* *lepsia*, to be fixed or end, in *Philosophy*, an impossibility of a thing's being conceived or comprehended.**

**ACATULUS, in Botany, a juniper berry.**

**ACATASTATOS, formed of *a* and *kata* *stato*, confito, inconstant, is a physical term, anciently applied to irregular fevers, whose paroxysms are uncertain, and which are indicated by frequent changes in the urine. It is likewise applied to those fluidering fits in fevers, which have no constant return, and to turbid urine, that deposits no regular sediment.**

**ACATECHILII, or ACATECHICENTII, in Orni-thology, the Fringilla Mexicana of Gmelin, and the Mexican Siskin of Latham, is about the size of the flikin, and has the fame fong, and feeds on the fame substances. Its head and the upper part of its body are a greenish brown, and the throat and under part white, shaded with yellow. Its Mexican name *Acatechiballi*, signifies the bird that rubs itself against the reeds, and may allude to some of its habits.**

**ACATERY, or ACATRY, in the king's household, a kind of check between the clarks of the kitchen and the purveyors.**

**ACATHARISIA, of *a* and *kata* *s* *a* *ris* *ia*, to change, in Medicine, denotes an impurity of the blood or humours.**

**ACATHISTUS, *akathistos*, in an *echthesial* *posi*, a solemn hymn, or vigil, anciently sung in the Greek church on the Saturday of the fifth week in Lent, in honour of the Virgin, for having three delivered Constantineople from the invasions of barbarous nations.**

It was called *akathistos*, i.e. without sitting, because it was celebrated standing: the people stood all night, singing the praises of their deliverer. The same name is also given to the
the day whereon it was performed, which is called the scaf

**ACATIUM**, in the ancient *Navigation*, a kind of boat or pinaceae used for military purposes.

The *acutum* was a species of those called *allaria marit*, i.e. such as were wrought with oars. It was sometimes made use of in battle. Strabo represents it as a kind of pri-

**ACAVU',**, and **ACAVOL',** in Botany, a term applied to certain plants, the flowers of which have no stalk or pedicel to support them, but rest immediately on the ground; of this kind are the cattail thistle, and some others.

**ACBB**, in *Ornithology*, a name given by the people of the Philippine islands to a bird very like our common hen, which is very frequently wild among them. It lives on rice, and other vegetables, and does a great deal of mischief; but is short-winded, and does not fly well, so that it is easily destroyed.

**ACBAR**, the name of an idol of enormous size, which the Arabs are said formerly to have worshipped. It was with difficulty that Mahomet restrained them from this species of idolatry. Hyde's Diff. vol. i. p. 257.

**ACBARABAD**, in Geography. See Agra.

**ACCA** (St.), in *Eclogiastic History*, bishop of Haguitard, or Hexham, in Northumberland, who succeeded Wilfrid in 709. Besides ornamenting the cathedral, he erected a noble library, confining chiefly of ecclesiastical learning, and a collection of the lives of the saints. He was accounted a very able divine, and famous for his skill in church music. He wrote several books, particularly *Paffions Sanctorum*, and *pro illybrandu Scripturis ad Bodam*. He died in 740, under Egbert. Simeon of Durham relates several miracles performed by his relics.

**ACCBABA**, in Geography, the name given by the Arabs to a chain of mountains near the Red Sea; and which formed the easternmost range of the *PLANUS BEN* of Ptolemy. The castle of *Acabo* is situated below these mountains on the eastern point of the Red Sea. See HOR.

**ACCBABAAR**, in *Natural History*, the *ISIS OCHERACA* of Linnaeus, the red Indian coral of Ellis.

**ACCBABAAR** is also a name given to the *Antipathes pneumaticus* of Linnaeus.

**ACCBABAARIUM**, in *Natural History*, a name given by Rumphius to the *MADREPSA OCELATA* of Linnaeus, or the white coral of the thorns; and also to the *ISIS HIPPIARIS* of the same author.

**ACCAD**, **ACCHAD**, or as the LXX has it *ARCHAD*, in *Scripture Geography*, a town in the kingdom of Nimrod or Babylonia, to the east of the Tigris. Wells (Geog. O. T. vol. i. p. 228) supposes that the city *SITPACE* or *PETTACE* was formerly called by this name, and that *ARTACEN*, mentioned by Strabo, was formed from *Arced*.

**ACCADEMIA**, in *Musical Language*, a term used in Italy to denote a private concert.

**ACCALLA**, in *Antiquity*, solemn scalls, held in honour of *Acca Laurentia*, wife of the shepheard Faustulus, and nurse or foster-mother of Romulus. She was deified by the Romans, and the flamen of Jupiter once a year offered sacrificies to her on a holiday instituted to her hon-

There were otherwise called *Laurentia*—To the same *Acca* is also attributed the institution of the *fratres arvalis*. Varro, de Ling., Lat. & Scalig., Coniect. in Varro.

**ACCAPITARE**, *Accapitare*, *Acaptare*, in ancient *Laurel-books* and records, the act of becoming vassal of a lord, or of yielding homage and obedience to him.

*The word is compounded of the Latin ad, to; and caput, head; because vassals owned their lords for their head. Whence also the lords are sometimes called *domini capitales*; as those who command in an army are called *capitanei*, capitans; and in old French, chevalleurs, chevaliers, in respect of their folders.*

**ACCAPITUM**, a sum of money paid to a vassal, upon his admission to a feudal.

*The word is also written *acaptium, acapitamentum, acap-
tium, acapitum, and acaptagyum.*

**ACCARABAAR**, in *Natural History*, the *GORGONIA SAB-
npa* of Linnaeus; and also the *ALLEONUM ARBOREM* of the same author.

**ACCARABAARIUM**, the *GORGONIA ANTIPATHES* of Linnaeus, or the black coral of other authors.

**ACCARISI, Francis**, in *Biography*, an ancient civilian in the 16th and 17th centuries, who was born at Ancona, and obtained celebrity as a professor of civil law in the university of Sienna. At first his lectures confuted of illustrations of Juliannus's Institutes; they were afterwards extended to the pandects, and at length comprehended civil law in general. After having occupied the chair of law-professor at Sienna with high reputation for twenty years, and refiting many advantageous offers from other Italian universities, he was induced to accept the proposals of the duke of Parma, who, besides pecuniary recompence, tempted him with the title of his counsellor; and he removed to Parma. However, he was soon recalled by the Grand Duke of Tucany, who a-

*Signified him the first professorhip in law at Pisa. He died at Sienna in 1622. Gen. Dict.*

**ACCARON, in Scripture Geography**, a town of Judea called *Abron*, 1 Sam. vii. 17. vii. 14., and mentioned in Josephus, Ant. i. vii. c. i. It was the boundary of Philistia to the north, not far from the sea, and from Bethhemel, (John. xv. 14. 46.) and famous for the idol Baalzebel, who was worshipped here under the same attribute with *Ancor*, the god of flies, from which, according to Bryant (Mythology, vol. i. p. 83.), this city derived its name. It was about thirty-four miles from Jerusalem. It first fell to the lot of Judah, and was afterwards given to the tribe of Dan. N. lat. 31° 55'. E. long. 34° 57'.

**ACCAS ISLAND, in Geography**, lies off the mouth of Ancobar river, on the coast of Guinea, and extends so far to the shore on each side as to render the channel very narrow.

*Accedas ad curiam, in L. to, an original writ, which lies for the removing suits in any court baron, except the county court, in the king's court; upon apprehension of partiality, or false judgment in the other.*

*Like writ lies for him who has received false judgment in the county court, where it is called de falsis judiciis.*

*An Accedas ad Curiam lies also for justice delayed, as well as falsely given; and is a species of the writ *recordari.*

*Accedas ad vicem communi, is a writ directed to the coroner, commanding him to deliver a writ to the sheriff, who hav-
ing a bond delivered to him, suppresses it.*

*ACCELERANDO, in Music, is an Italian term for accelerating the time in the middle of a piece of music, as *ratio* is for retarding it. This hith a fashion able effect lately introduced in the performance of music, and much abused by the excels and too frequent use of it.

The gradual change of measure, when practised in the midst of a regular movement, seldom produces any other effect on common hearers than that of breaking time. Perhaps in a very pathetic and expressive passage, even in an allegro, when very delicately done from real feeling, the effect may be approved; but the imitators of the licences and retim-
ments of great masters disgrace the compositions which they mean to embellish, and disgust their listeners. During imitators of the bold modulation of Haydn, and of the rapid running up and down the keys in half notes, as Mozart did in his juvenile days, have deformed melody, and corrupted harmony. These great masters knew when to stop; but their apes think they never can feason their productions too highly; and, it is to be feared, that the lovers of simplicity will never be indulged again with plain food, even by those who have no means of gratifying them with luxuries.

ACCELERATING Force, in Mechanics. See Force.

ACCELERATION, in Mechanics, the increase of velocity in a moving body.

Accelerated motion is that which continually receives fresh accessions of velocity, and is either equably or unequably accelerated. If the accessions of velocity be always equal in equal times, the motion is said to be equably or uniformly accelerated; but if the accessions in equal times either increase or decrease, the motion is unequally or variably accelerated. Acceleration stands directly opposed to retardation, which denotes a diminution of velocity.

Acceleration is chiefly used in Physics, in respect of falling bodies, i.e., of heavy bodies tending towards the centre of the earth by the force of gravity.

That natural bodies are accelerated in their descent, is evident from various considerations, both à priori and posteriori.

Thus, we actually find that the greater height a body descends from, the greater impulsion it makes, and the more vehemently does it strike the plane or other obstacle on which it falls.

Various are the systems and opinions which philosophers have produced to account for this acceleration. Some attribute it to the prefluence of the air: the farther, say they, a body falls, the greater load of atmosphere is consequently incumbent on it; and the prefluence of a fluid is in proportion to the perpendicular altitude of the column thereof.

Add, that the whole body of the fluid preffing in immovable right lines, which all meet in a point, viz. the centre of the earth; that point, by the meeting of those lines, fulfains, as it were, the prefluence of the whole mass; consequently, the nearer a body approaches to it, the effect or prefluence of more united lines must it fulfain.

But what overturns this account is, that as the prefluence of the air downwards increases; so, by the known laws of statics, does the resistance, or the force wherewith the same fluid tends to repel, or drive the body upwards again. Others insist, that the incumbent air is the grofer and more vaporous, the nearer the earth; and filled with more heterogeneous particles, which are not true effulsive air; and hence, say they, a deflecting body, meeting continually with less refiiance from the effulency of the air, and having the same force of gravity still acting on it, must necessarily be accelerated. Hobbes (Philos. Probl. cap. i. p. 3.) attributes acceleration to a new impreflion of the caufe which makes bodies fall; which, on his principles, is also the air. As part of this mount, part also must defend; for reasons drawn from the motion of the earth, which is compounded of two motions, one circular, the other progressive; consequently, the air defends, and circulates at once. As the body, in its fall, receives a new prefluence in every point in its descent, its motion, he says, must needs be accelerated.

But what overturns all accounts where the air or atmosphere is concerned, is, that the acceleration holds in vacuo, and even more regularly than in air. See Vacuum.

The Peripatetic account is worse than this: the motion of heavy bodies downwards, say they, arises from an intrinsic principle, which makes them tend to the centre, as their proper seat, or element, where they would be at rest; hence, add they, the nearer bodies approach to it, the more is their motion accelerated.

The Galileans, on the other hand, hold that the earth emits a fort of attractive effulvia, innumerable threads whereof continually ascend and descend; which threads, proceeding like radii from a common centre, diverge the more the farther they go: so that the nearer a heavy body is to the centre, the more of these magnetic threads it receives; and hence the more is its motion accelerated. But this is refuted by an easy experiment: for if a ball be let fall out of the lowest window of a high tower, and also out of the highest, the acceleration will be very nearly the same in both cafes, notwithstanding the greater vicinity to the centre in the one, than in the other cafe.

The Cartesians account for acceleration, from the repeated pulses of a subtle ethereal matter, which is continually acting on the falling body, and impelling it downwards.

After all, the immediate cause of acceleration is not mysterious; the principle of gravitation being once admitted, will determine the body to descend, and its motion will be accelerated by necessary consequence.

Suppose a body let fall from on high: the primary cause of its beginning to descend, is doubtless the power of gravity; but when once the descent is commenced, that rate becomes in some measure natural to the body; so that if left to itself, it would persevere in it for ever, even though the action of the first caufe should cease: as we see in a stone cast with the hand, which continues to move after it is left by the caufe that gave it motion.

But, before the propensity to descend, impressed by the first caufe, and which of itself were sufficient to continue the same degree of motion once begun, in infinitum; there is a constant accesion of subsequent efforts of the same principle, gravity, which continues to act on the body already in motion, in the same manner as if it were at rest. Here, then, being two causes of motion; and both acting in the same direction, the motion they jointly produce must necessarily be greater than that of any one of them. And the velocity thus increased having the same caufe of increase still persevering, the caufe must of course be continually accelerated.

For, supposing gravity, whatever it be, to act uniformly on all bodies, at equal distances from the earth's centre; and that the time in which a heavy body falls to the earth be divided into equal parts indefinitely small: let this gravity incline the body towards the earth's centre, while it moves in the first indefinitely small part of the time of its descent; if after this, the action of gravity be supposed to cease, the body would proceed uniformly towards the earth's centre, with a velocity equal to that which results from the force of the first impreflion.

But now, since the action of gravity is here supposed still to continue; in the second moment of time, the body will receive a new impulfe downwards, equal to what it received at first; and thus its velocity will be double of what it was in the first moment; in the third moment it will be triple; in the fourth quadruple, and so on continually: for the imprefion made in one moment, is not at all altered by what is made in another: but the two are, as it were, aggregated or brought into one sum.

Wherefore, since the particles of time are supposed indefinitely small, and all equal to one another; the velocity acquired by the falling body will be every where proportioned to the times from the beginning of the descent; and the velocity will be consequently proportional to the time in which it is acquired.

Thus
Thus, if a body, by means of this constant force, acquire a velocity of 32 feet in one second of time, it will acquire a velocity of 64 feet in two seconds, of 96 feet in three seconds: and all bodies, whatever be their quantity of matter, will acquire, by the force of gravity, the same velocity, in the same time. For every equal particle of matter being endowed with an equal impelling force, viz. its gravity or weight, the sum of all the forces, in any compound mafs of matter, will be proportional to the sum of all the weights or quantities of matter to be moved; consequently, the forces and masses moved, being thus constantly increased in the same proportion, the velocities generated will be the same in all bodies, great or small; i.e. a double force moves a double mass of matter, with the same velocity that the single force moves the single mass, &c. or, the whole compound mafs falls altogether with the same velocity, and in the same manner, as if its particles were not united, but as if each fell by itself, and all were Separated from one another: and being put into motion at once, they would fall together, just as if they were united into one mafs.

Galileo, who first discovered the above-mentioned law of the descent of falling bodies, illustrated it nearly in the following manner.

The space passed over by a moving body in a given time, and with a given velocity, may be considered as a rectangle made by the time and the velocity.—Suppose A (Plate 1. Mechanics, fig. 1.) a heavy body defending, and let AB represent the time of its descent; which line we may suppose to be divided into any number of equal parts, AC, CE, EG, &c. representing the intervals, or moments of the given time.—Let the body defend through the first of these divisions, AC, with a certain equal velocity arising from the proposed degree of gravity: this velocity will be represented by AD; and the space passed over, by the rectangle CAD.

Now, as the action of gravity in the first moment produced the velocity AD, in the body before at rest; in the second moment, the same will produce, in the body moving, a double velocity, CF; in the third moment, to the velocity CF will be added a farther degree, which together therewith will make the velocity EH, which is triple of the first, and fo of the rest. So that in the whole time AB, the body will have acquired a velocity BK.—Again, taking the divisions of the line, e.g. AC, CE, &c. for the times, the spaces gone through will be the areas or rectangles CD, ET, &c. So that in the whole time AB, the space described by the moveable body, will be equal to all the rectangles, i.e. to the dented figure ABEK.

Such would be the case, if the acclivities of velocity only happened in certain given points of time, i.e. in C, in E, &c. so that the degree of motion should continue the same till the next period of acceleration occurs.—If the divisive intervals of time were supposed less, i.e. by half; then the dents of the figure would be proportionally smaller; and it would approach so much the nearer to a triangle.—If they were infinitely small, i.e. if the acclivities of velocity were supposed to be made continually, and in every point of time, as is really the case; the rectangles thus successively produced will make an exact triangle, e.g. ABE (fig. 2.)—Here, the whole time AB consisting of the little portions of time A 1, 1 2, &c. and the area of the triangle ABE, of the sum of all the little triangular surfaces answering to the divisions of the time; the whole area or triangle expresses the space moved through in the whole time AB; and the little triangles A 1 2, &c. the spaces gone through in the divisions of time A 1, &c.

But these triangles being similar, their areas are to one another, as the squares of their homologous sides AB, A T, &c. and consequently, the spaces moved are to each other as the squares of the times.

If the velocity were uniform, the space would be equal to the product of the velocity and time; i.e. by an obvious notation \( S = V \times T \); but, in this case, the velocity increases from 0 till it becomes equal to V, and therefore the space described must be equal to half the above product; i.e. \( S = \frac{1}{2} V \times T \), and \( S : : \frac{1}{2} V \times T : : V T : : V T \times T : \) but \( V : : T : : T \times T : : \)

Hence we may easily infer the great law of acceleration, viz. "That a descending body uniformly accelerated, describes, in the whole time of its descent, a space which is just half of what it would have described in the same time, with the accelerated velocity it has acquired at the end of its fall." For, the whole space the falling body has moved through in the time \( A B \), we have already shewn, will be represented by the triangle ABE; and the space the same body would move through in the same time with the velocity BE, would be represented by the rectangle ABET.

—But the triangle is known to be equal to half the rectangle.—Therefore the space moved is just half of what the body would have moved with the velocity acquired at the end of the fall. Hence we infer, that if the body moved with the lately acquired velocity BE, in half the time \( A B \), is equal to that really moved by the falling body in the whole time \( A B \).

From the preceding principles and reasoning we deduce the following general laws of uniformly accelerated motions; viz.

1. That the velocities acquired are constantly proportional to the times.

2. That the spaces are proportional to the squares of the times; so that if a falling body describe any given length in a given time, in double that time it will describe four times that length, in thrice the time nine times the length, &c.; and universally, if the times be in arithmetical proportion, \( 1 \), \( 2 \), \( 3 \), \( 4 \), &c. the spaces described will be \( 1 \), \( 4 \), \( 9 \), \( 16 \), &c. Thus, a body which falls by gravity through 16 \( \frac{3}{4} \) feet in the first second of time, will fall through four times as much, or 64 \( \frac{3}{4} \) feet in 2 seconds, &c. And since the velocities acquired in falling are as the times, the spaces will be as the squares of the velocities: and both the times and velocities will be in a subduplicate ratio, or as the square roots, of the spaces.

3. The spaces described by a falling body in a series of equal moments or intervals of time, will be as the odd numbers \( 1 \), \( 3 \), \( 5 \), \( 7 \), \( 9 \), &c. which are the differences of the squares or whole spaces; i.e. a body which has fallen through 16 \( \frac{3}{4} \) feet in the first second, will fall in the next second through 48 \( \frac{7}{8} \) feet, and in the third second through 80 \( \frac{15}{16} \) feet, &c.

Retaining the above notation, \( S : : T^2 : : V^2 : \) and \( V : v \) or \( T : t : : \sqrt{S} : \sqrt{s} \); i.e. \( S\frac{1}{2} : : s\frac{1}{2} : \) and the times will be reciprocally as the velocities, and directly as the spaces; for \( S : : T^2 : TV \); and \( STV = VS \); consequently \( T : t : : SV : sV \); or \( T = \frac{S}{V} \). When the accelerating forces are different, but constant, the spaces will be as the products of the forces into the squares of the times; and the times will be in the subduplicate ratio of the spaces directly, and of the forces inversely. For when the force is given, the velocity \( V \) is as the time \( T \); when the forces are different, but constant, and the time is given, the velocity \( V \) will be as the force \( F \). But when neither the force nor the time is given, the velocity \( V \) will be partly as the time and partly as the force, or as their product \( F \times T \).

Thus, \( V : v : \frac{F \times T}{F \times T} \)
4. If a body fall through any space in any time, it acquires a velocity equal to double that space; i.e., in an equal time, with the half acquired velocity, uniformly continued, it would pass through double the space. Thus, if a body fall through \( \frac{16}{3} \) feet in the first second of time, it will have acquired a velocity of \( \frac{32}{6} \) in a second: i.e., if the body move uniformly for one second, with the velocity acquired, it will pass over \( \frac{32}{6} \) feet in this second; and if in any time the body fall through 100 feet, then in another equal time, if it move uniformly with the velocity half acquired, it will pass over 200 feet, &c.

To those who disapprove of Galileo's demonstration of the laws of accelerated motion, the following method of illustrating and evincing them, may possibly be more satisfactory. Let the whole time of a body's free descent be divided into any number of parts, each of which is called \( t \); and let \( a \) denote the velocity acquired at the end of the first part of time; then \( 2a, 3a, 4a, \&c. \) will represent the velocities at the end of the 2d, 3d, 4th, \&c. parts of time, because the velocities are as the times; and for the same reason, \( \frac{1}{2}a, \frac{3}{2}a, \frac{5}{2}a, \&c. \) will be the velocities at the middle point of the 1st, 2d, 3d, \&c. parts of time. But as the velocities increase uniformly, the space described in any one of these parts of time may be considered as uniformly described with the velocity in the middle of that part of time; and therefore, multiplying each of those mean velocities by their common time \( t \), we shall have the same fractions \( \frac{1}{2}a, \frac{3}{2}a, \frac{5}{2}a, \&c. \) for the spaces passed over in the successive parts of the time; i.e., the space \( \frac{1}{2}a \) in the first time, \( \frac{3}{2}a \) in the second, \( \frac{5}{2}a \) in the third; and adding these spaces successively to one another, we shall obtain \( \frac{1}{2}a, \frac{3}{2}a, \frac{5}{2}a, \frac{7}{2}a, \&c. \) for the whole spaces described from the beginning of the motion to the end of the first, second, third, \&c. portions of time, viz. \( \frac{1}{2}a \) in one space of time, \( \frac{3}{2}a \) in two spaces, \( \frac{5}{2}a \) in three spaces, \( \frac{7}{2}a \) in four, \&c. and the spaces will be as the numbers \( 1, 3, 5, 7, 9, 11, \&c. \) which are as the squares of the times.

From this mode of demonstration, all the properties above mentioned will evidently follow; such as, that the whole spaces, \( \frac{1}{2}a, \frac{3}{2}a, \frac{5}{2}a, \&c. \) are as the squares of the times \( 1, 2, 3, \&c. \) and the separate spaces \( \frac{1}{2}a, \frac{3}{2}a, \frac{5}{2}a, \&c. \) described in the successive times, are as the odd numbers \( 1, 3, 5, \&c. \) And that the velocity \( a \), acquired in any time \( t \), is double the space \( \frac{1}{2}a \) described in the same time.

From the properties above demonstrated, we obtain the following practical theorems or formula for use. Let \( g \) denote the space passed over in the first second of time by a body urged by any constant force, denoted by \( 1 \), and \( t \) denote the time or number of seconds in which the body paffes over any other space \( s \), and \( v \) the velocity acquired at the end of that time: then we shall have \( s = 2gt^2 \) and \( v = gt \); and from these two equations we obtain the following general formulæ: viz.

1. \( t = \frac{v}{2g} = \frac{2v}{2g} = \sqrt{\frac{v}{g}} \)
2. \( v = 2gt = 2\sqrt{\frac{x}{g}} = \frac{2t}{t} \)
3. \( s = gt^2 = \frac{v^3}{g} = \frac{t^2}{2} \)
4. \( s = \frac{v^2}{2g} = \frac{v^2}{2} \)

These theorems are equally applicable to the diminution of motion and velocity, by means of retarding forces, as to the generation of them by means of accelerating forces. Hutton's Diæ. ubi supra. Parkinson's System of Mechanics, &c. p. 50.

The motion of a body ascending, or impelled upwards, is diminished or retarded from the same principle of gravity acting in a contrary direction, in the same manner as a falling body is accelerated. See Retardation.

A body, thus projected upwards, rises till it has lost all its motion: which it does in the same time that a falling body would have acquired a velocity equal to that with which the body was thrown up. Hence, the same body thrown up, will rise to the same height from which, if it fell, it would have acquired the velocity with which it was projected upwards. And hence the heights to which bodies thrown up with different velocities ascend, are to one another as the squares of those velocities.

Acceleration of bodies on inclined planes. The same general law obtains in this case, as in bodies falling perpendicularly; viz. that the velocities are as the times, and the spaces descended down the planes as the squares of the times or of the velocities. But the velocities are less, according
to the sine of the planet's inclination, and the spaces left according to the square of the sine. See Inclined Plane.

Acceleration of the Motion of Pendulums. See Pendulum.

Acceleration of the Motion of Projectiles. See Projectile.

Acceleration in Astronomy. is a term applied to the fixed stars. Thus, the diurnal acceleration is the time by which the stars, in one diurnal revolution, anticipate the mean diurnal revolution of the sun, which is 3° 55½" of mean time, or nearly 3 minutes 56 seconds; i.e. a star rises or sets, or paffes the meridian, 3° 56" sooner each day. This apparent acceleration of the stars is owing to the real retardation of the sun; and this depends upon his apparent motion towards the east, which is at the rate of about 59 8° of a degree every day. In consequence of this, the star which paffed the meridian at the same moment with the sun yesterday, is to-day about 59 8° beyond the meridian to the east, when the sun arrives at it; and this distance it will require about 3° 6' for him to pass over; and therefore the star will anticipate the motion of the sun at this rate every day. The true quantity of this anticipation or acceleration is found by the following proportion, viz. 360° : 59 8° : 24 hours : 3° 55½", the acceleration required. This diurnal acceleration serves to regulate the lengths and vibrations of pendulums. If the pendulum marks e.g. 8° 10", when a fixed star sets or passes, and is continually increasing or decreasing, then it may be inferred that such a pendulum is truly regulated, or justly measures mean time. See Clock.

Acceleration of the moon, is a term used to express the increase of the moon's mean motion from the sun, compared with the diurnal motion of the earth; so that it is now a little swifter than it was formerly. Dr. Halley (Phil. Trans. No. 218) was the first who made this discovery; and he was led to it by comparing the ancient eclipses observed at Babylon with those observed by Albagtegins in the ninth century, and former of his own time. He was not able to ascertain the quantity of this acceleration, because the longitudes of Bagdat, Alexandria, and Aleppo, where the observations were made, had not been accurately determined. But since his time, the longitude of Alexandria has been ascertained by Chazelles, and Babylon, according to Ptolemy's account, lies 5½ east from Alexandria. From these data, Mr. Dunthorne (Phil. Trans. No. 492, abr. vol. x. p. 84, &c.) compared several ancient and modern eclipses, with the calculations of them by his own tables, and thus verified Dr. Halley's opinion: for he found, that the same tables represent the moon's place in the ancient eclipses behind her true place, and before it in later eclipses: and hence justly inferred, that her motion in ancient times was slower, but in later times quicker than the tables give it; and therefore, that it must have been accelerated. But he did not content himself with merely ascertaining the fact. He proceeded to determine the quantity of the acceleration; and by means of the most ancient eclipse of which any authentic account remains, observed at Babylon in the year before Christ 721, he concluded that the observed beginning of this eclipse was not above an hour and three quarters before the beginning by the tables; and therefore the moon's true place could precede her place by computation but little more than 50 of a degree at that time. Admitting the acceleration to be uniform, and the aggregate of it as the square of the time, it will be at the rate of about 10° in 100 years. M. de la Lande makes it 9° 886. In Mayer's tables it is 9°, beginning from 1700.

Dr. Long (Alcron. vol. ii. p. 436.) attributes the acceleration above described to one or more of these causes: either, 1. the annual and diurnal motion of the earth continuing the same, the moon is really carried round the earth with a greater velocity than it was formerly; or, 2. the diurnal motion of the earth, and the periodical revolution of the moon continuing the same, the annual motion of the earth round the sun is a little retarded; which makes the sun's apparent motion in the ecliptic a little lower than it formerly was; and, consequently, the moon, in passing from any conjunction with the sun, spends less time before the next overtake the sun, and forms a subsequent conjunction: in both these cases, the motion of the moon from the sun is really accelerated, and the synodical month actually shortened: or, 3. the annual motion of the earth, and the periodical revolution of the moon continuing the same, the rotation of the earth round its axis is a little retarded: in this case, days, hours, minutes, seconds, &c. by which all periods of time must be measured, are of a longer duration; and, consequently, the synodical month will appear to be shortened, though it really contains the same quantity of absolute time as it always did. If the moon is the matter in the body of the sun be lefled by the particles of light continually streaming from it, the motions of the earth round the sun may become slower: if the sun increases in bulk, the motion of the moon round the earth may be thus quickened. M. de la Place (Mem. de l'Acad. Roy. des Sciences, for 1786.) has evinced this acceleration of the moon's motion to arise from the action of the sun upon the moon, combined with the variation of the eccentricity of the earth's orbit. By the present diminution of the eccentricity, the moon's mean motion is accelerated; but, when the eccentricity is arrived at its minimum, the acceleration will cease: after which, the eccentricity will increase, and the moon's mean motion will be retarded. M. de Lambre found, by comparing the modern observations at about the distance of a century, that the secular mean motion of the moon in the last tables of Mayer was too great by 25°; and that the place of the moon calculated by these tables ought to be corrected by the quantity 25° + 2°, 135° + 6°, 24308° n, n being the number of centuries from 1700. M. de la Lande, in his tables of the moon, has thus corrected Mayer's tables. Hence it appears, that the present acceleration of the moon is nothing more than an equation, the period of which is very long. It will be accelerated and retarded by the same quantity; and therefore, if the mean motion be taken for the whole time of acceleration or retardation, it will be found never to vary. Vinc's Alcron. vol. i. p. 206.

Acceleration, in Music. See Accelerando.

ACCELERATORES Urus, called by Winiflow Bulbo-covergo, and by others Urina stimulatores and ejaculatores feminis, in Anatom, a pair of muscles whose office is to expel the discharge of the urine and of the semen. These muscles may be said to arise from just before the verge of the anus, where the sphincter ani terminates. They are spread over the bulb and a small portion of the corpus spongiosum urethrae; having that appearance, which anatomists have termed a doubly penniform muscle. From the anterior part of the muscle a fasciculus of fibres proceeds on each side, by which the body of the penis is encircled.
When these muscles act, they generally contract in a sudden and convulsive manner, and by this means expel in jets the light portions of urine, or any other fluid which may be contained in the urethra.

ACCENDENTES, or ACCENDORS, in Ecclesiastical writers, a lower order of ministers in the church of Rome, whose office is to light, stuff, and trim the candles or tapers.

The accendentes are much the same with those otherwise called acolyphi and ceraerarii.

ACCENDONES, or ACCENDONES, in Roman Antiquity, a kind of GLADIATORS, whole office was to excite and animate the combatants, during the engagement.

ACCENTI, in Antiquity, an inferior order of officers, appointed to attend the Roman magistrates, somewhat in the manner of ushers, ferjants, or tip-flavies, among us. They were thus called from accent, to find for; one part of their office being to call assemblies of the people, summon parties to appear before the judges, &c.

ACCENTI also denote a kind of supernumerary soldiers in the Roman armies; whose office was to attend the motions of their principals, and supply the places of those who were killed or disabled by their wounds.

They were thus denominated quia accentebantur, or ad conum adjuicabatur: Vegetius calls them supernumerarii legionum: Cato calls them ferentaurii, because they furnished those engaged in battle with weapons, drink, &c. Though Nonnius suggests another reason of that appellation, viz. because they fought with lances, spears, and weapons, quae ferentur, such as are thrown, not carried in the hand. They were sometimes also called velites, and velati, because they fought clothed, but not in armour; sometimes adscripti and adscripti; sometimes rossarii. The accenti, Livy observes, were placed in the rear of the army, because no great matter was expected from them; they were taken out of the fifth class of citizens. Felicius in voc. Ferentini. Salm. de Re Mili. Rom. c. 15.

ACCENTI was also an appellation given to a kind of adjutants, appointed by the tribune to affist each centurion and decurion. In which sense, accentus is synonymous with opio.—In an ancient inscription, given by a Torre, we meet with accensus equestor Romanorum; an office nowhere else heard of; that author suspects it for a corruption, and instead thereof reads a censibus. Act. Erud. Leips. 1701. p. 259.

ACCENSION, ACCENSION, in Physick, the act of kindling, or setting a body on fire.

The word is formed of the Latin accelerare, to kindle; a compound of ad, to; and cedere, to give. Though some grammarians suspect the primitive significature of accelerare, to have been, to render famous.

Accension, on other occasions, is called INFLAMMATION, IGNITION, CONflagRATION, &c.

Accension stands opposed to extinction.

Chemists furnish us with various influences of the acceleration of cold liquors by bare mixture; as of the acid spirits of minerals, and the essentitial oils of plants.

ACCENT, in its primitive sense, an affection of the voice, which gives each syllable in a word its due pitch, in respect of height or lowness. The word is originally Latin, accentus, a compound of ad, to, and cedere, to give. In this sense, accent is synonymous with the Greek tónos, the Latin tenor, or tonus, and the Hebrew דעום yōphus, tāfe.

The accent, properly, only respects high and low, or acute and grave.—Though the modern grammarians use it also in respect to loud and soft, long and short; but this confounds accent with quantity.

The difference between the two may be conceived from that which we observe between the heat of a drum, and the sound of a trumpet; the former expresses every thing belonging to loud and soft, and long and short; but so long as there is a monotony in the sound, there is nothing like accent.

The ingenious Mr. Harris (Philological Inquiries, p. 64.) compares quantity to musical tones differing in long and short, as upon whatever line they stand a semibreve differs from a minim; and accent to musical tones differing in high and low, as D upon the third line differs from G upon the first, whether its length be the same, or it be longer or shorter.

Accent is also used in Grammar for a character placed over a syllable, to mark the accent, i.e. to show that it is to be pronounced in a higher or a lower tone, and to regulate the inflections of the voice in reading or in speaking. It is distinguished from emphasis, as the former regards the tone of the voice, the latter the strength of it. For other distinctions between accent and emphasis, see emphasis.

It has been long disputed among the learned, whether accents were originally musical characters, or marks of prosody: it is not easy to determine a question concerning which the arguments on both sides are so numerous. But as music, says Dr. Burney, (Hist. of Musick, vol. i. p. 13.) had characters different from accents so early as the time of Terpander, to whom the invention is ascribed by the Oxford marbles, which place this event about 670 years before Christ; and as accents for profody are likewise proved to be of higher antiquity, there seems to have been no necessity for the ancients to use the one for the other. Mr. Welt (Phidias, vol. ii. p. 194, 1250.) maintains, that accents were originally musical notes, set over words, to direct the several tones and inflexions of the voice requisite to give the whole sentence its proper harmony and cadence. The names of the Greek accents, he says, express their musical origin, and correspond exactly to those terms made use of in our modern mufick; viz. sharp, flat, and a grave, called the tern, and consisting, like the circumflex, of a sharp and a flat note. The Abbé du Bos (Reflection. Crit. iii. p. 85.) afferts, that as poets originally set their own verses, they placed for this purpose a figure, or accent, over each syllable. The learned author of "The Origin and Progress of Language," has also taken pains to prove that the Greek accents were musical notes, invented and accommodated to raise, depress, and suspend the voice, according to a scale of musical proportions.

We reckon three grammatical accents in ordinary use all borrowed from the Greeks, viz. the acute, grave, and circumflex.

The acute accent shows when the tone of the voice is to be raised and sharpened. In modern writings it is a small line, or virgula, placed over the vowel, a little sloping or inclined in its descent from right to left, as ('). It is not ordinarily used either in English or Latin; the French indeed retain it; but it is only to mark the close of masculine é. The grave accent is used when the note or tone of the voice is to be depressed and flattened; and is figured thus (').

The circumflex accent is composed of both the acute and grave; it points out a kind of undulation of the voice, which is first raised and sharpened, and then depressed and flattened; or it is an acute tone dying away into a grave, and conseqently lengthening the syllable. It is expressed thus ('') or (''). Upon a nearer consideration of the sub-
teck says a learned writer, "On the Profoundness of the Greek and Latin Language," it appears, that the acute accent, which is a sharp stroke of the voice upon some one syllable of the word, is in truth the only positive tone. The grave confounds merely in a negation of this acuteness, and is not marked except it be upon the last syllable of certain words; but is to be understood upon every syllable of the word, which carries neither the acute nor circumflex: and it seems to amount to no more than this, that what grammarians call the grave tone, confounds in a mere negation of acuteness, and of circumflex, if that be different from acuteness. Accordingly, the general doctrine of accents is, that, with the exception of fourteen monosyllables in the Greek language, which carry no accent, unless it be in particular circumstances, and for that reason are called acus, or atones, some one syllable of every word, and one syllable only, bears an accent, either acute or circumflex.

If it be true, that the whole system of pronunciation depends upon three accents, it is no less true, that each of these three admits of several degrees. The acute accent, for instance, may be either higher or lower; may be simply acute, or very acute; and the like holds of the grave and circumflex. So that each of the three common accents is, as it were, a genus including various particular species; though the ancient grammarians have not thought fit to annex particular names and figures to all these differences.


Mr. Sheridan, in his Lectures on Eloquence, p. 38, observes, that the meaning of the term accent, among the ancients, was very different from what it is with us. They distinguished accents by certain inflections of the voice like musical notes; but the manner in which they did it must remain for ever a secret to us; for, with the living tongue perished the tones also, which we in vain endeavour to explore in their visible marks. With us, the term accent denotes a peculiar mode of distinguishing one syllable from the rest; and this distinction is made in various ways: either by dwelling longer upon one syllable than upon the rest, or by giving it a sharper percussion of the voice in utterance. Of the first of these we have inflections in the words glory, father, bally, of the last in battle, habit, barracoe. So that accent, with us, is not referred to tone, but to time; to quantity, not quality; to the more equal or precipitate motion of the voice, not to the variation of notes or inflexions. He proceeds to observe, that the quantity depends upon the feet of the accent, whether it be on the vowel or consonant: if on the vowel, the syllable is necessarily long, as it makes the vowel long, if on the consonant, it may be either long or short, according to the nature of the consonant, or the time taken up in dwelling upon it. By changing the feet of the accent in the inflexions above specified, we should change their quantity: if, instead of glory we should say glo're, instead of father, father, instead of bally, bally, the first syllables would become short; and, on the other hand, if we were to dwell on the vowels instead of the consonants in the last inflexions, they would be changed from short to long, as bâ'tle for bâ'tle, habît, for habît, and bâ'r'acoe, for bâ'r'acoe. This, he says, is one of the chief sources of the difference between the Scotch and English gentlemen in the pronunciation of English: i.e. laying the accent on the vowel instead of the consonant, so as to make syllables long that are short with us. He adds, it is an unerring rule, that whenever the accent is on the consonant, the preceding vowel has a short sound; and there is another infallible rule in our tongue, that no vowel ever has a long found in an unaccented syllable; and therefore, if the accent were properly adjusted, it would prove a master-key to the pronunciation of our whole tongue. In another place, (Art. of Reading, vol. ii.) Mr. Sheridan says, that when the foot of the accent is on a vowel, the syllable is long; when on a consonant, short; and that all unaccented syllables are short.

But the use of accent in our language is not confined to quantity alone. It is also the chief mark by which words are distinguished from mere syllables. The essence of a word, says this author, consists in accent as well as articulation. The Greeks also distinguished words from mere syllables by a certain tone or note annexed to each word, which made their speech more musical or pleasing to the ear, than that of any other nation in the world. These tones they learned from their infancy, and they used them with such accuracy, that even the vulgar among the Athenians would have blotted an actor or actress from the stage, and an orator from the pulpitum, on account of a few mistakes in the enunciation of these notes. The wonderful effects of the harangues of the Greek orators on the enraptured minds of their hearers were owing, in a considerable degree, to those artificial musical tones, by which their syllables were so happily diversified. To this purpose confides Dionysius Hal. de Compositione Verborum, apud Oper. tom. ii. p. 17, &c. Ed. Oxon. 1704. This harmony of utterance is not studied by any of the moderns, except the Chinese. Words are also distinguished from syllables by making a perceptible pause at the end of each word. Mr. Sheridan is of opinion, that the most evident and precise as well as the most easy and certain mode of distinction, is that of accent; and that it would contribute most effectually both to utility and to ornament.

As to public speakers, who can pronounce the English properly, the only rule necessary to be observed by them is to lay the accent always on the same syllable, and the same letter of the syllable, which they usually do in common discourse, and to take care not to lay any accent or stress upon any other syllables. Such persons should recollect, that, in the English language, every word which consists of more syllables than one, has one accented syllable; and that there is seldom or never more than one such syllable in any English word, however long. See Pronunciation.

In the English language there is a remarkable peculiarity of throwing the accent farther back; that is, nearer the beginning of the word than is done by any other nation. In Greek and Latin no word is accented farther back than the third syllable from the end, or what is called the antepenult. But, in English, we have many words accented on the fourth, some on the fifth, syllable from the end, as memorable, convenience, ambulatory, &c. The general effect of this practice of halting the accent, or placing it to near the beginning of a word, is to give a brisk and spirited, but at the same time a rapid and hurried, and not very musical, tone to the whole pronunciation of a people.

The Hebrews have a grammatical, a rhetorical, and a musical accent; though the first and last seem, in effect, to be the same; both being comprised under the general name of tonic accents, because they give the proper tone to syllables; as the rhetorical accents are said to be euphonic, inasmuch as they tend to make the pronunciation more sweet and agreeable.

There are four euphonic accents, and twenty five tonic: however, authors are not agreed as to the number of either class. Of these, some are placed above, and others below the syllables: the Hebrew accents serving not only to regulate the risings and fallings of the voice, but also to distinguish
The doctrine of Hebrew accents has occasioned much dispute amongst learned critics. See Baxter's Thesaurus, and Eberhard Vander Hooght's Pref. to the Epistles of Athens, 1705.

As to the Greek accents, they have been both in manuscript and printed books, there has been no dispute about their antiquity and use, than about the use of those of the Hebrews. On the subject of this dispute we may observe, in general with a learned writer, Bishop Lowth, (Prolog. Diff. to his Isaiah, p. 16.) that there were certain laws of Hebrew metre is very probable, and that the living Greek language was modified by certain rules of accent is beyond dispute: but a man born deaf may as reasonably pretend to acquire an idea of sound, as the critics of these days to attain to the true modulation of Greek by accent, and of Hebrew by metre. To which we may add, that though the ancient Greeks had no accentual marks, they learned those modifications of voice by practice from their infancy; and in pronunciation they are to be observed to this day.

Iacov Vossius, in a treatise "De Accentibus Graecorum," endeavours to prove that they are of modern invention, and that anciently they had nothing of this kind; but only a few notes in their poetry, which were invented by Aristophanes the Grammarian, about the time of Ptolemy Philopater; and that these were of musical, rather than of grammatical use, serving as aids in the singing of their poems; and very different from those which were afterwards introduced. This appears from inscriptions as well as manuscripts, none of which, till 170 years after Christ, have either accent, spirit, apostrophe, or any subscribed. He adds, that Aristarchus, a disciple of Aristophanes, improved on his master's art; but that the whole of what they both did was only designed to assist youth in the more readily making of verses. The same Vossius shows from several ancient Grammarians, that the manner of writing the Greek accents in those days was quite different from such as are now used in our books. It is alleged by others, that accentual marks, which, they say, were invented by Aristophanes, were not in common use till about the seventh century; at which time they were found in MSS. Amongst those who totally reject the accents, on the supposition that they would confound the quantity, as it is determined by the rules of prosody, we may reckon Beza, Scaliger, Spelman, and others.

Hence Christ. Hence think, (see his Eusebii et Origini Archimandritarum Accentuum, 1664,) that accents were the invention of the Arubans to late as the eighth century, and that they were only used in poetry; that they were intended to ascertain the pronunciation of the Greek, and to keep out that barbarism, which was then breaking in upon them; that the ancient accents of Aristophanes were perfectly agreeable to the genuine Greek pronunciation, but that the modern ones of the Arabs destroy it. Wetzlar, Greek professor at Ratisbon, in a learned Differtatio, endeavours to prove the Greek accents to be of an older standing: and that the Greeks, long before the birth of Christ, regulated their pronunciation by accents, very much like those that are now in use. He owns that they were not always formed in the same manner by the ancients; but thinks that difference owing to the different pronunciation which obtained in the several parts of Greece; and he adds, that accents were not used except in the schools of grammarians, who recurred to them in reading the old poets. He brings several reasons a priori for the use of accents, even in the earlier days; as that, then they wrote wholly in capital letters equivalent from each other, Concerning the position, necessity, and utility of them. The
other, without any distinction of words or phrases: so that without accents they could scarcely be intelligible: and that accents were necessary to distinguish ambiguous words, and to point out their proper meaning; and this sentiment he confirms from a dispute on a passage in Homer, mentioned by Aristotile in his Poetics, ch. v. Accordingly he observes, that the Syrians, who have tone, but no distinctive accents, have yet invented certain points, placed either above or below the words, to show their mood, tense, peron, or enfe. See farther, in his Differtatio Epistholica de Accedentum Graecorum Antiquitate et Uss. Basil. 1686.

Montfaucon, (Pal. Grac. p. 33) after observing that Aristophanes of Byzantium invented proody, or accents, adds, that the Greek language was not, before his age, totally delitute of accents and aspirates, because, without these, no language can be pronounced; but, that he directed the regulation of them, invented the marks and forms by which they were to be expressed, and the place in which they were to be introduced. The same sentiments are likewise maintained by Dr. Follet, in his (‘Essay on the different Nature of Accent and Quantity. Eton. 1763, ed. 2d,”) who explains the notion that the Greek accent teches the quantity of pronunciation; and who maintains, with many others, that it is a musical note. Professor Gesner, in a dissertation De Accedentum Graecorum Propontians, printed in 1755, has laboured to remove the principal objections against the antiquity of accents, viz. that they do not coincide with the proody of the Greeks; and are, therefore, to be considered as a modern corruption of the Greek language. His opinion amounts to this, that the accents do not at all determine which syllabla is to be pronounced longer; that the accent e.g. of ανατολη, being placed on the first syllable, does not oblige us to pronounce the word as a dactyl; that, as the Greeks spoke more musically than we, they pronounced some syllables more distinctly than others; that they raised their tone and dropped it; and that the elevation and fall of the tone were determined by the accents. See Montodolfo’s Origin and Progress of Language, vol. ii, b. 2, par. Mr. Marsh, the learned translator of Michaelis’s Introduction to the New Testament, informs us (vol. ii. p. 802) that Eugenius, a Greek priest and archbishop of Cefhon, in reading Greek, distinctly marked by his pronunciation both accent and quantity, lengthening the found without raising the tone of his voice, when he pronounced a long syllable, which had not an acute accent, and raising the tone of his voice without lengthening the found, when he pronounced a short syllable which had an acute accent; in the same manner as in music, where the highest note in a bar is frequently the shortest. Hence he infers, that the opinion advanced by Prof. Gesner and Dr. Follet, is not merely theoretical, but confirmed by actual experience. An example of this kind, however, is very rare; because the modern Greeks, in general, pronounce according to accent alone. In England the Greek accents are rejected; and quantity alone, as it is generally supposed, is regarded in pronunciation. But Mr. Marsh observes, that we still pronounce Greek according to accent, though according to rules different from those which are followed by the Greeks themselves. In reading Greek we observe the same rules with regard to the position of the tone, as in reading Latin; and here we do not regulate the tone of the voice merely by the length of the syllables. e.g. Βιρτις, προφης, ἔφις, δανίς, are pronounced in the same manner, though they differ in quality: and κρίνοις, πατρίς, ἡμῖνις, λαύδις, are pronounced alike, though they vary in quality. We are therefore directed in placing the accent, or raising the tone of the voice, by some principle distinct from that of quantity. The rule for placing the accent in Latin words, which has been laid down by Latin grammarians, is the following. In Latin diffylables the accent is always on the first syllable, whether it be long or short. In polyfylables the accent is on the penultimate, if it be long; but, if it be short, the accent is on the antepenultimate, whether this be long or short. See Diomedes de Accedentu, l. ii. p. 426, printed in the Grammatica Latinae Antecres Antiqui. Op. et Stud. Heliz Putchi, Hanov. 1653, 4to. See also Quinianlan in Ski. i. c. v. p. 59. Ed. Burman. According to this rule, there is only one case in which accent and quantity must coincide, and that is in polyfylables, which have the penultimate long; but, in polyfylables which have the penultimate short, and in all diffylables, it is merely accidental, whether accent and quantity coincide or not. This disagreement constitutes the harmony of Latin verse, which would be intolerable if accent and quantity always coincided; as any one will find, who makes an hexameter consisting of six words, of which the first five are dactyls; whereas, those verse are the most harmonious, in which the number of words, in which accent and quantity disagree, is equal to the number of those in which they coincide. In the first line of Virgil’s Bucolics, which is a very harmonious verse, accent and quantity coincide in Τιτρε and τηγμα, but disagree in ρειχαμαν and πατολε.

The Greeks adopted a very different principle from the Latins in determining the syllable which was to be elevated in speaking; for in ταρτες, they raised the antepenultimate, in ανατολη they shortened the penultimate. Thus Diomedes (ubi supra, l. iii. p. 435) observes, that the acute accent of the Greeks occupied three places, the ultimate, penultimate, and antepenultimate; but amongst the Latins only two places, viz. the penult and antepenult. Since we then, in order to avoid a method attended with some difficulty, regulate the tone of the voice in Greek as we do in Latin, it follows that we read Greek, neither according to Greek accent, nor Greek quantity; but according to the rules of the Latin accentuation. The whole difficulty of the Greek accents, say Meffis. Port Royal, consists in two points; the first, in knowing the quantity of the penultimate and ultimate, and the second, in knowing on what syllable the words should have their elevation by nature; because, even supposing the same quantity, the elevation may not be the same, which never happens among the Latins. This is a difficult and embarrassing business, for which grammarians have given a number of rules and a greater number of exceptions. See Port Roy. Gr. Gram. vol. ii. p. 291, &c.

The best advocates for accents have not contended, that the ancient Greeks used them in common books, much less in letters, but only in their schools; and Michaelis apprehends that they do not occur in any copies of the New Testament till extant, which are antecedent to the 8th century, and but seldom in those which are more modern. He adds, they were not written by the Apostles; but were probably first added by Euthalius in the year 458. See Wetstein’s Prolegomena, p. 73. His translator, however, has discovered both accents and marks of aspiratio in several MSS. which he mentions; particularly the Vatican and the Claretianae. The Alexandrian, Cambridge, and four other MSS. are without accents. Marsh’s Transl. of Michaelis’s Introduction, vol. ii. p. 894. In a treatise de Rhythmia Graecorum, not long since publish’d, and ascribed to a learned Prelate of the English church, the author controverts the opinion, αλαμ εις συλλατον ακοινη γραμμην αλαμ άν αν έμος, in opposition to Faber, Dacier, Peace, Clarke, and others. Another learned writer, supposed to be Bishop Horsey, in
his "Effay on the Profodics of the Greek and Latin languages," maintains, that the marks of the accents were introduced in the writing of the Greek language some time before the commencement of the Christian era, and that they exhibit the true speaking tones of the language; such as were used by the Greeks themselves, when it was a living language, spoken in its purity. This writer ably refutes the system of Mr. Primatt, who (in his "Accentus Redivivi," published in 1762,) is an advocate for the antiquity of the accents, and who defends the accented pronunciation of Greek prose; whilst he agrees with the opposers of the Greek accents, that they are not calculated to regulate the recitation of verse. According to Mr. P. verse and prose were pronounced, by the ancient Greeks, by two different rules: the one, by the rule of the Latin accent, which he, as well as most others who difpute the Greek accents, consider as an universal rule of quantity, or metrical recitation: the other, by the proper accents of the Greek language. He is thus reduced to the necessity of adopting the impossible hypothesis, that it is the nature of the acute accent to lengthen the syllable on which it falls, and yet, with evident inconsistency, he admits, that, in music, length of sound and accenture of tone are not always united. The learned prelate, just mentioned, condemns the rule, which has been functioned by some of the classical scholars of our two universities, that we are to read by accent in prose and quantity in verse; and he observes, that it is not very probable, that any people should have had two pronunciations essentially different, one for prose, and another for verse. He equally condemns the position, that prose as well as verse in Greek must be read by quantity, that is, as says, by the Latin accent, and thinking that the Greek accen
tual marks express, as we have already said, the true speaking tones of the language, he proposes rules of recitation, on the supposition that tone was not always laid on connected words, where the accentual marks appear; whole position, however, was not changed, to prevent the confusion which would follow from making the position of the written mark different in connected from what it is in isolated words; and he confers the printing of books unaccented. He also maintains, that, though in placing accent, regard is had to quantity, euphonia gratia, and though it may therefore be a symptom of quantity, it is never a cause of it, and never creates it; and he calls the opinion of Mr. Primatt and others, that the acute accent lengthens the tone of the syllable on which it falls, a common prejudice. In order to prevent accent from interfering with quantity, he proposes to transponso it: as in the line, "Mow and Sir P(Hallam) Aqio in," the word Aqio must be pronounced "Aqio,"

An ingenious writer, viz. Mr. A. Browne, in his observations upon Greek accents, published in the Irish Transactions, vol. vii. p. 359, &c. professes, that he never could assent to a position so contradictory to the testimony of his ear, as that of the acute accent not lengthening the syllable on which it falls; and that his mind was much impressed by an observation of Mr. Primatt, that it is one of the extraordinary powers of the acute accent, even to change the real quantity, and also with his assertion, that the opinion of Melf. De Port Royal, viz. that the accent only raises the voice without giving any duration in pronouncing, is erroneous. Nevertheless, he is disposed to acquiesce in the sentiment, that the accents denote only tone, or elevation and depression of the voice. This writer, conceiving it of importance to ascertain the pronunciation of the modern Greeks, and their mode of using the accents, made some attempts for this purpose. The importance of this inquiry is obvious, because the Greek is at this day a living lan-
guage; whereas the Latin has in this respect been extinct for 1200 years.

The result of his inquiry, after conversing with some modern Greeks, was, that they have not two pronunciations for prose and verse, and that in both they read by accent. But they make accent the cause of quantity, so as to govern and control it; and they make the syllable long on which the acute accent falls, and they allow the acute accent to change the real quantity. They pronounced αίωνα short, and αίωνα long, with a marked attention to the alteration of the accent with the variety of the case. Instead of αίωνια they said αίωνια, and for ζυγόν they pronounced ζυγόν. He was assured by them, that verse as well as prose was read by accent, and not by quantity, and they exemplified their mode of reading by reciting several lines of Homer. Our author concludes, upon the whole, that the ancient Greeks as well as the modern read both verse and prose by accent, and that they allowed the accents to control and alter the quantity. Dacier, Pearce, and Clarke admit, that they read prose by accent, not by quantity: and the learned Prelates, to whose opinion and writings we have referred, contend that they could not have had a different mode of reading prose and verse.

To these two propositions Mr. B. accedes, and the combination of them confirms his opinion. He differs, however, from the inferences deduced from them by their advocates, viz. that verse is not to be read by accent, as the first mentioned gentlemen maintain, or as the Prelates affirm, that, though it is, its quantity is not thereby affected. Our author adds, that the modern Greeks use for accents the word αίων, thus confirming the opinion, that there is properly no accent but the acute, the grave being the negation of accent; and that the word απόθετος in the ancient Greek language, is the term used for accents; which word, when translated into Latin, is accentus or accentus, implying elevation of voice, or a kind of song, superadded or raised in the common tone of the voice, and cannot be applied to the grave, which is the negation of any departure from the usual level. He is of opinion, that the circumstance which has been mentioned as the peculiarity of the English, viz. that we always prolong the sound of the syllable in which the acute accent falls, is true with regard to every nation upon earth. It is true of the modern Italians and modern Greeks. In the English language, quantity is not affected, because quantity and accent always agree. The same is the fame, as Sir William Jones has shown, among the Persians; and he observes, with respect to its position, that the Persians, like the French, accented the last syllable of the word. We shall here add a remark, though not immediately connected with the subject of this article, suggested to Mr. B. by his conversation with the modern Greeks, that we are much mistaken in our idea of the supposed lofty sound of απόθετος, which Sir William Jones and the Borderers on the coast of the Archipelago take their ideas from the gentle laving of the shore by a hummer wave, and not from the roaring of a winter ocean; and they accordingly pronounced it Polyphθη

On the subject of Greek accents we may refer to the Port Royal Gr. Gram. vol. ii. p. 288, &c. Labbe Regu

The use of accents to prevent ambiguities is most remarkably perceived in some eastern languages, particularly the Siamese and Chinese. The Chinese only reckon four accents: for which the missionaries use the following marks
The accents are also observed to ring rather than talk. Their alphabet begins with fix characters, all only equivalent to K, but differently accented. For though in the pronunciation the accents are naturally on the vowels, yet they have come to diversify such of their consonants as are in the height of the time. De la Loubiere du Royatme de Siam, tom. ii. p. 720.

As minutely as the accents of words have been studied, those of sentences seem to have been utterly overlooked; yet it may be observed, that all mankind lower the voice at the end of a period, and elevate it in interrogations, and the like. See Bacon de Augm. Scien. i. vi. c. i. Elem. Crit. vol. ii.

Accent is applied, not very properly, to the characters which mark the quantities of syllables, or the time during which the voice is to dwell upon them. The furious accents answer to the characters of time in music, as crotchets, quavers, &c. The genuine accents rather answer to the musical notes, fel, fa, &c. Such are the long accent, which shows that the voice is to stop on the vowel, and is expressed thus, (•); and the short accent, which shows that the time of pronunciation ought to be shorter, and is marked thus (•). Some even rank the hyphen, dialeole and apostrophe, among accents.

Accent also denotes a certain inflexion of the voice; or a peculiar tone, and manner of pronunciation, contrasted from the country, or province, where a person was bred. In this sense, we hear, the Welsh tone or accent, the Northern accent, the Galloign accent, Norman accent, &c. See Pronunciation.

Accent is also a tone or modulation of the voice, frequently used as a mark of the intention of the speaker, and giving a good or evil signification to his words. One may give offence with the softest and most soothing words imaginable, by a proper management of the accent and manner of pronouncing them. The accent frequently gives a contrary sense to that which the words themselves naturally import.

Accent, in Music. In the mechanism of melody, or measured musical tones, musicians have long agreed to regard the first and third notes of a bar, in common time, whether vocal or instrumental, as accented, and the second and fourth notes as unaccented. In triple time, divided into three portions, the first note and left are accented, the second unaccented. But these accents are variously modified; often to produce some comical effect, as wantonly limping to ridicule lameness. If the third note in triple time is accented in serious music, it is always left forcibly marked than the first. In the speech or elocution of the natives of every country, and almost in every province of a country, there is a peculiar tone or tune, by which nice observers discover the residence of the speaker. A native of Scotland, e. g. however carefully educated, and accurate his pronunciation, has a cantilea, a tone of voice, by which an Englishman discovers his country. The language that is the most forcibly and frequently accented, is indubitably the best fitted to receive musical tones. When it was said in a conversation with Metastasio on the subject of languages, that the Italian was the best calculated for music of any dialect in Europe, he cried out "é musics flipo," it is music itself. Another Italian (Eximeno) observed, that the conversation of a Roman matron, vol un aris, is equal to an air. In setting songs, the structure of the verse regulates the musical accents; and instrumental music is but a succedaneum to vocal. It may be said, therefore, that no music, even for instruments, is so generally pleasing as that which can be sung. The genius of instruments, and abilities of performers, require more notes to display their powers, than a human voice can, with propriety, attempt to execute. In very rapid divisions, ascending or descending the scale in notes of equal length, no regard is had to accents; and, though the execution may be neat and articulate, an Italian, fond of simplicity, would say it, of as a shade misappared; non dese niente, it says nothing. Without accent there is no more melody in long, than in the humming of a bee; and without the regular arrangement of long and short syllables, there can be no verison. There are as many different accents in music as in speech, or modes of enunciating or enfeebling the meaning of words. There is a yes that says no, and a no that says yes. There are accents of spirit and accents of violence, of tenderness and of friendship. The voice of a feeling finger can modulate all these shades, or affect the hearer on the side of intellect as well as of sense. Dionysius Halicarn. regards accent as the source of all music. Accents is a poetical name for verbo itself.

"Wings on your wings to heav'n her accents bear."

Such words as heav'n alone is fit to hear.

Passions and affections are the food of vocal music. Dryden's Virgill, paff. iii.

"Give to the musician (says Rousseau) as many images and sensations to express as possible; for the passions fling, the understanding only speaks."

"Accent, according to Holder (Elements of Speech), as in the Greek names and usages, seems to have regarded the tune of the voice; the acute accent raising it in some certain syllables to a higher, e. g. more acute pitch, or tone, and the grave depressing it lower, and both having some emphasis, e. g. more vigorous pronunciation." See Accent in Grammar.

The variety of instrumental expression produced by the different manner of using the same passage or group of notes on the violin and violoncello, on the flute by the coup de langue, on the harp by the pressure of the lip, is beyond calculation. Articulation, emphasis, pointed bowing, flurrying, tonguing, &c. are all technical terms, which will be severally explained, as connected with accent.

Accent, in Poetry. See Rest and Versification.

Acceptance, the act of receiving or admitting. Acceptance, among Civilians, is the concurrence of the will, or choice of the donee, which renders the act complete; and without which the donor may revoke his gift at pleasure.

In beneficiary matters, the canonists hold, that the acceptance should be signed at the same time with the renunciation, not ex intero.

Acceptance, in Common Law, denotes a tacit agreement to a preceding act, which might have been defeated and avoided were it not for such acceptance. If a man and his wife, seised of land in the right of the wife, make a joint lease, or feoffment by deed, reserving rent; the man dying,
dying, and the wife receiving the rent; such a receipt is deemed an acceptance, and shall make the lease good: so that the tenant be barred from bringing the writ, Cui in vita.

So if a lease for the term of twenty years, accept a lease of the same land for ten years: by the lessee’s acceptance of the new lease, the term of twenty years is determined in law. 2 Roll. Abr. 469.

Acceptance, in Commerce, is particularly used in respect of bills of exchange.—To accept a Bill of exchange, is to sign or subscribe it; and thereby become principal debtor of the sum contained therein: with an obligation to pay or discharge it at the time prefixed.

The acceptance is usually performed by him on whom the bill is drawn; upon its being presented to him by the person on whose behalf it was drawn, or by some others by his order.

A small matter amounts to an acceptance, so that there be a right understanding between both parties: as, “Leave your bill with me, and I will accept it;” or, “call for it to-morrow, and it shall be accepted.” This obliges the acceptor effectually to the custom of merchants, and according to law, as if the party had actually subscribed or signed it, which is usually done.

But should a man say, “Leave your bill with me; I will look over my accounts and books between the drawer and me, and call to-morrow, and accordingly the bill shall be accepted.” This shall not amount to a complete acceptance; for this mention of his books and accounts was really intended to give him an opportunity of examining if there were errors in his hands to answer; without which perhaps he would not accept the same; and so it was ruled by the Lord Chief Justice Hale, at Guildhall, London.

A bill may be accepted for part; because the party, upon whom the same was drawn, had no more effects in his hands; which being usually done, there must be a protest, if not for the whole sum, yet at least for the residue; however, after payment of such part there must be a protest for the remainder.

Bills payable at sight are not to be accepted; as being to be acquittet at their present; or in defect of payment, to be protested.—In bills drawn for a certain number of days after sight, the acceptance must be dated: because the time is to be accounted therefrom.—The form of this acceptance is accepted such a day; and then the signature.

Bills drawn, payable on a day named, or at usage, or double usage, need not be dated; usage being reckoned from the date of the bill itself.—On these it is insufficient to write, accepted, and the signature.

If the bearer of a bill be contented with an acceptance to be paid in twenty days after sight, where, in the bill itself, only eight days are expressed, he runs the risk of the twelve additional days: so that if the acceptor fail he has no remedy against the drawer. And if the bearer contents himself to receive a less sum than is expressed, in part, he is to stand the chance of the refi.

Acceptation, in Grammar, the signification of a word; or the sense wherein it is taken and received.

Acceptation, in the Civil Law, an acquittance given without receiving any money, or a declaration of the creditor in favour of the debtor, signifying, that he is satisfied for his debt, and forgives all farther claim, or demand; though in reality no payment has been made.

Acceptor of a bill of exchange, the person who accepts the bill. See Acceptance.

Access, in a general sense, signifies the approach of a thing towards another.

In which sense, accesses stand opposed to receifs.

We sometimes say, the access of bodies, the access of the moon, the sun, planets, &c. but more frequently, the approach of bodies, the approach of the moon, the rising of the sun, &c. Geometers speak of a line called the curve of equal access, or approach.

Access, in a more particular sense, denotes entrance, or admission.

We say such a person has access to the prince: the access on that side was very difficult, by reason of rocks, &c.

Access, in Medicine, denotes a fit, or return of some periodical disease.

We say an access of the gout; but especially of an ague, an intermitting fever, an epilepsy, &c. an access of madness; sometimes also a prophetic access, a cold access, &c. Access is frequently confounded with paroxysm: but they are different things; an access being frequently the beginning or first onset of a disease, a paroxysm the height of it.

Accessible, something that may be approached, or to which we may have access.

Such a place, a fortress, is accessible from the seaward; i.e. the passage to it is practicable. See Fortification.

In surveying, it is such a place as will admit of having a distance measured from it; or such a height or depth as can be measured by a proper instrument: for the means of doing which, see Altimetry, Altitude, Distance, Height, and Longimetry.

Accession, in a general sense, is the act of approaching or going to a place, person, or thing. It is more particularly used for the act whereby a thing is joined, or united to something that existed before.

Accession, in Politics, is used for the act of engaging and becoming a party, in a treaty before concluded between other powers; on the same conditions as if originally comprehended in the treaty itself: such as the accession of the States General to the treaty of Hanover, of the Czarina to the treaty of Vienna, &c. It likewise signifies a prince’s succeeding to the government upon the death of his predecessor.

Accession, in the language of the Conclave, is a method of electing a pope, by procuring for some candidate two-thirds of the voices, upon which the rest are enrolled by way of accession.

Accession, in the Civil Law, denotes a method of acquiring property in certain things, by virtue of their connection with other things, which already belong to us.

Accesion is effected divers ways, whence arise several species of it, simple and mixed, natural and artificial, direct and concrete accession. See Alluvion and Specification.

Accession, in Medicine, see Access.

Accessiorius. Flora digiturn fella, in Anatomy, a name given by Dr. Hunter to that portion of muscle which was described by Sylvius, and generally distinguished by the title of Membrana carnea Sylvi. See Accessorius ad facro-lumbarem. See Sacro-lumbaRIS.

Accessory, or Accessary, something that accedes, or is added to another more considerable thing: in which sense the word stands opposed to principal.

Accessory, in Grammar, is used by Mr. Harris to denote such words as are significant by relation in opposition to principal, which is applicable to words that are significant of themselves. See Word.

Accessory, or Accessary, in Common Law, is chiefly used for a person guilty of a felonious offence, not principally, but by participation; as, by advice, command, or concealment.
ACG

There are two kinds of accessories; before the fact, and after it.—The first is he who commands, or procures another to commit felony, and is not present himself; for if he be present, he is a principal.

The friend is he who receives, affords, or comforts any man that has done murder, or felony, whereas he has knowledge. A man may also be accessory to an accessory, by aiding, receiving, &c., an accessory in felony.

An accessory in felony shall have judgment of life and member, as well as the principal, who did the felony, but not till the principal be first attainted, and convicted, or outlawed thereto. Where the principal is pardoned without attainer, the accessory cannot be attainted; it being a maxim in law, Ulo non est principalis, non potest esse accessorius. But if the principal be pardoned, or have his clergy after attainer, the accessory shall be attainted. 4 & 5 W. & M. cap. 4. And by Stat. 1 Anne, cap. 9, it is enacted, that where the principal is convicted of felony, or stands mute, or challenges above twenty of the jury, it shall be lawful to proceed against the accessory in the same manner as if the principal had been attainted; and notwithstanding such principal shall be admitted to his clergy, pardoned, or delivered before attainer. In some cases also, if the principal cannot be taken, then the accessory may be prosecuted for a misdemeanor, and punished by fine, imprisonment &c. Stat. ibid. See Stat. 5 Anne, cap. 31. In the lowest and highest offences there are no accessories, but all are principals: as in riots, routs, forcible entries, and other trespasses, which are the lowest offences.—So also in the highest offence, which is, according to our law, high treason, there are no accessories. Cok. Littlet. 71.

Accessories, in petty treason, murder, and in felonies of several kinds, are not to have their clergy.—There can be no accessory before the fact in manslaughter; because that is sinned and unpunished.

Accessory by statute, is such a one as abets, advises, aids, or receives one that commits an offence, which is made felony by statute.

Accessory nerves, Accessorius Willisi, or Par Accessorius, in Anatomy, a pair of nerves, which, arising by several filaments from the medulla spinalis of the neck, and having advanced to the first vertebra, where each of them is fixed to the posterior side of the ganglion of the nucleus suboccipitalis, or tenth pair, ascends through the great foramen of the os occipitis into the cranium; and communicating with the 9th and 10th, passes out again close to the 8th pair. Afterwards turning backward, and perforating the menicus fermo-malloideus, they terminate in the trapezius, having first distributed some branches to the rhomboidei. Physiologists have been at a loss to account for the singular origin and course of these nerves. The ancients considered them as branches of the 8th pair. Willis also considered them as appendages to that pair, and called them Accessorius. They are sometimes called the spinal pair, but as this denomination comprehends the nerves of the spine indiscriminately, Willis's name is more appropriate, and therefore it has been generally preferred. See Origin and Course of the Nerves.

Accessory among Painters, an epithet given to such parts of a history piece, as serve chiefly for ornament, and might have been wholly left out: such as naves, armour, &c.

ACCHO, in Geography, a port called by the Greeks Ptolemais, and now Acra.

ACCI, in Ancient Geography, a town in the confines of Bactia, supposed to be Guadix, in the province of Granada, in Spain. It was also called Colonie Accitana, and its inhabitants were denominated Genucienses, and the colony Comtia, because it was formed from two legions, viz. the third and the sixth.

ACCICARUTA, in Musæ, is a term, as it should seem, by the little successes of those who have attempted it, difficult to be defined by words, or to be exemplified in notes. It is putting down with any interval the half note below it, and instantly taking off (as if it were red hot) the finger which has struck the lowest of the two notes, continuing the sound of the other note, till the harmony is changed. An organist never puts down a single flow note on his instrument without touching, at the same time, the semi-tone below, and sometimes keeping it on, or making a beat with the forefinger, while the thumb remains firm on the principal sound. The term accicatura, though uncommon, is not new; as it occurs in "l'Ammonico Pratico" of the eminent opera composer Francesco Gasparini, the master of Dominico Scarlatti, and of the celebrated figure la Faulina: this tract, which is in fact a treatise on accompaniment, was first published at Venice in 1703. The technical term acciacatura is derived from acciacare, to bruise, crush, or jump down. Gasparini compares it to the nightly bite of an insect, that instantly flies away. See pl. i. No. 1. Musæ; some examples from the 5th edition of this excellent little tract, printed in 1754.

ACCICIOLI, DONATUS, in Biography, a learned Florentine of the 15th century, was born in 1428, and distinguished by the honourable employments which were assigned him in his native country, and by the probity and disinterestedness of his character. He published commentaries on the ethics and politics of Aristotle, which he collected from the lectures of Argyropolis the Byzantine, and translations of the lives of Alcibiades and Demetrius from Plutarch, to which were added those of Hannibal and Scipio, and of Arctino's twelve books of the history of Florence, printed at Venice in 1476. He also wrote an Abridgment of the Life of Charlemagne, and some other Treatises. Having been sent to France by the Florentines to sue for succour from Louis XI. against Pope Sixtus IV., he died on his journey at Milan, in 1473; but his body was carried to Florence, and buried in the church of the Carthusians. His daughters, like those of Aritides, were married, and portions at the public expense, as an acknowledgment of his services. His funeral eulogium was pronounced by Christophor Landini, and an elegant epitaph by Politian, was inscribed on his monument. Gen. Dict.

ACCIOLI, Zenobia, a learned Dominic of the same family with the former, continued to enjoy the office of library-keeper to Pope Leo X. from the year 1518, to his death in 1520, as some say, in 1537 according to others, at the age of 58. He learned Greek and Hebrew towards the close of his life, translated several of the fathers, and wrote several orations and poems, sermons on the Epiphany, and some other pieces. He likewise collected a volume of Politian's Greek epigrams, which were published in 1495.

ACCIOLI, Angelo, cardinal, legate, and archbishop of Florence, died in 1407. He preferred the Florentines in their obedience to the pontiff Urban VI., when attempts were made to seduce them in favour of Clement VII. He wrote a work, with a view of healing schism, which then rent the church.

ACCIOLI, Renato, descended from a noble family of Florence, attended the conquest of Athens, Corinth, and a part of Boeotia, at the beginning of the 15th century. Having no male issue by Eubois, his wife, he bequeathed Athens
ACC

Accidence, Accidentia, a name chiefly used for a little hook, containing the first elements, or rudiments of the Latin tongue.

Per Accident, is frequently used among philosophers to denote what does not follow from the nature of a thing, but from some accidental qualities thereof, in which sense it stands opposed to per se, which denotes the nature and essence of a thing.

Thus fire is said to burn per se, or considered as fire, and not per accident; but a piece of iron, though red hot, only burns per accident, by a quality accidental to it, and not considered as iron.

ACCIDENTAL, in the popular sense of the word, signifies a contingent effect, or something produced casually, and without any foreknowledge or design in the agent that produced it.

Accident, in Grammar, denotes a property attached to a word, without entering into its essential definition. Thus every word, whatever be its signification, will be primitive, derivative, simple or compound, which are the accidents of words. Besides, each particular species of words has its accidents: e.g. those of the noun substantive are gender, declension, and number, and the adjective has another accident, viz. comparison.

Accident, in Heraldy, is an additional note or mark in a coat-armour, not necessarily belonging to it, but capable either of being retained, or omitted, without altering the essence of the armament. Such are Abatement, Differences, and Tincture. Edmonston observes, that accidents of arms, though frequently mentioned by authors, can have no meaning in blazonry.

Accident, in Logic, something additional, or super-added, to a substance; or not essentially belonging to it, but capable, indifferently, either of being or not being in it, without its destruction. The schoolmen distinguished three kinds of accidents, verbal, predicamental, and predicamental. Verbal accidents stand opposed to essence; and in this sense the adjuncts to a thing, though subsistences themselves, are denominated its accidents. Thus a man's clothes which are not essential, but adventitious or accessory to his person, are accidents. Predicamental accidents are used in opposition to proper. Such is any common quality; as whiteness, heat, or the like. These are called in the schools, predicamental accidents, because usually laid down and explained in the doctrine of predicables. They may either be taken in the abstract, as whiteness, learning; or in the concrete, as white, learned. If taken in the abstract, as is done by Porphyry, the accident is defined as above, that which may either be present, or absent, without the destruction of its subject. If it be taken in the concrete, accident is usually defined by the schoolmen, something capable of being predicamented contingently, of any, in respect of quality. As learning, which may probably be predicated of you, him, &c.

Predicamental accident is a mode or modification of some creating subsistence, inhering or depending thereon, so as not to be capable of subfusiting without the fame. In this sense, accident is opposed to substance. Whence, as substance is defined a thing that subsists in itself, and the substratum of accidents; so an accident is said to be that sujas esse effe in se; and therefore Aristotle, who usually calls substances simply esse, entities, beings; commonly calls accidents, esse esse, entities of entity; requiring some subsistence wherein to subsist, as its subject of adhesion. So that accident has an immediate and essential dependence on its substance; both as to its production, its continuation, and its effects; it arises or is deduced from its subject, is preferred or subfusited by it; and can only be affected by what alters, or affects, the subject. The old schoolmen, however, will not have accidents to be mere modes of matter, but entities really distinct from it; and, in some cases, separable from all matter. But the notion of real accidents, and qualities, is now exploded. Aristotle and the Peripatetics make nine kinds of predicamental accidents; others contract them into a less number. The term absolute accident is used in the Roman theology for a predicamental accident, which subsists, or may possibly subsist, at least miraculously, and by some supernatural power, without a subject.

Such, they contend, were the accidents of the bread and wine in the eucharist, e.g. the colour, flavour, figure, &c. thereof, which remain after the substances they belonged to are changed into other substances of flesh.

The Cartesians universally combat the notion of absolute accidents; it being their doctrine, that the essence of matter consists in extension; and that accidents are only modifications thereof, in no wise distinct from it; an accident therefore without a subject must be a contradiction. And hence Cartesians is branded as contrary to the Roman Catholic faith.

Various expedients have been invented by the Cartesians, to account for transubstantiation, &c. without the hypothesi-
that are natural, in a variety of instances. The subject has
likewise been considered by M. de la Hire, and M. Epinus;
and M. d'Arcy has contrived a machine for measuring
the duration of the above-mentioned impressions on the eye; and
he inferred in the refult of several trials, that the effect of
the action of light on the eye continued about eight thirds
of a minute. See Ac. Par. 1743, and 1765. Nov. Com.
Petrop. vol. 10. And for an abstract, Prieflley's Hist. &c.

Accidental Point, in Perspective, is a point in the hori-
zontal line, in which a right line drawn from the eye, par-
allel to another right line, intersects the picture or perspec-
ttive plane. This is also the accidental point of all other
lines parallel to the original line, since the same line drawn
from the eye is parallel to them all; and the representation
of all these parallels, when produced, concur in the acci-
dental point. See Perspective.

Accidental Dignities and Debits, in Aesthetics, are
certain casual dispositions and affections of the planets,
whereby they are supposed to be either strengthened or
weakened, by their being in such a house of the figure.

Accidental, in Muse, is an epithet added to such
sharps, flats, and naturals, as occur not at the clef, and
which imply some change of key or modulation different
from that in which the piece began. In the key of C na-
tural, for instance, an accidental C♯ implies the key of
D minor; a D♯, the key of E; an F♯, that of G major;
and G♯, the key of A minor. In like manner a flat
placed before B, implies the key of F major, or D
minor, &c.

Accipenser, in Ichthyology. See Accipenser.

Accipesius, a name given by Athenians and others
of the Greek writers to the Sturgeon, called by others
Onifer.

Accipiter, a name given by Galliuns and some
others to the fish, called by others the vitulus and lucernus.
It is a species of trigla in the sytems of Arledi and
Linnaeus.

Accipitres, or Rapacious Birds, in the Linnean
fystem of Ornithology, the first order of birds; the charac-
ters of which are, that the bill bends downwards, that the
upper mandible is dilated a little on both sides towards the
point, or armed with a tooth-like process, and that the
nostrils are wide; the legs are short and strong; the feet
are of the perching kind, having three toes forwards and
one backwards; the toes are watery under the joints, with
clawes hooked and sharp at the points. The body, head
and neck are mucilus, and the skin very tough. The
birds of this order feed by preyng on other animals, and
on dead carcasses, and they are unfit for food. They live
in pairs, and are monogamous; and build their nests in
lofty situations. The female is generally larger and stronger
than the male, and usually lays four eggs at a time. This
order comprehends four genera, viz. Vultur, Falco, Stare, and Landid. Mr.
Latham has removed this last genus to the order of Pte.x

Accipitrina, in Botany, a name by which some authors have expressed the hawkweed, and others, the fix-
weeds or sophia chirurgorum. See Hieracium and Sys-
temerium.

Accismus, denotes a feigned refusal of something
which a person earnestly desires. The word acismus is
supposed to be formed from Acis, the name of a foolish old
woman, famous in antiquity for an affection of this kind.
Accisum is sometimes considered as a virtue, sometimes
as a vice, which Augustus and Tiberius practised with great
success. Cromwell's refusal of the crown of England may
be brought as an instance of an accismus. In rhetorics, the term
is used for a species of irony.

Accius, Lucius, in Biography, a Latin tragic poet,
who, according to St. Jerome, was born in the year of
Rome, 583, B.C. 170. Several of his tragedies were
foundered on the most celebrated stories which had been
represented on the Athenian stage, as Andromache, An-
dromeda, Alcestes, Clytemnestra, Medea, Meleager, Pho-
icles, the civil wars of Thebes, &c. He also composed
one dramatic piece entirely Roman, called Brutus, which
related to the expulsions of the Tarquins. Some say
that he wrote comedies; and the Wedding and the Merchant
are ascribed to him. See Vossius de Poet. Latin, p. 7.
Besides his dramatic writings, he left other works, particu-
larly his Annals, mentioned by Macrobius, Prician, Paolo,
and Nonius Marcellus. He was much applauded by
Decimus Brutus, who was conful in the year of Rome 615, for
the verses which he wrote in his praise; and he was so much
efraced by the public, that a comedian was punished for
only mentioning his name on the stage. However, he has
been censured by some for the harshness of his style, though
he was generally allowed to be a very considerable poet.
The particular character of Accius seems to have been that
of vigour and sublimity. Horace styles him altus, elevated,
and Ovid, animus, spirited: the latter applies the epithet
atrox, cruel, to his works, which is thought to refer to the
subjects of them, or the great catastrophes treated of by
the Greek Dramatists. Cicero (De Clar. Orat. apud Oper.
tom. i. p. 395, Ed. Genev.) speaks with derision of one
Accius, who had written history; and some have supposed
that, as Accius had written Annals, he refers to him; but
this is not probable, as Cicero himself, Horace, Quintilian,
Ovid and Petreius have expressed themselves in terms of
distinguished applause of the Accius, that is the subject of
this article.

There was also another Accius, or Attius, called Pisau-
virens from Pisaurum, the place of his nativity, who was
esteemed a good orator, against whom Cicero defended Au-
tom. i. p. 473. Orat. pro Cluent. apud Op. tom. v. p. 57,
&c. Valerius Maximus mentions a poet of this name, who
was accustomd not to rise when Julius Cesar entered the
affability of the poets, as he reckoned himself, in that
place, his superior. Gen. Dict.

Accius, Zuecbus, an Italian poet of the 16th cen-
ty, who is said to be the author of Italian sonnets by
way of paraphrase on the fables of Apollon, on which Julius
Scaliger beholds great commendation.

ACCLAMATION, a confused noise, or shout of joy,
by which the public express their applause, effemin,
or approbation of any thing.

Acclamation, in a more proper sense, denotes a certain
formula of words, uttered with extraordinary vehemence,
and in a peculiar tone, somewhat resembling a song frequent
in the ancient assembles.

Acclamations were usually accompanied with applauses,
with which they are sometimes confounded, though they
ought to be distinguished; as acclamation was given by
the voice, applaute by the hands; beides, acclamation
was also bestowed on persons absent, applaute only on
those present. Acclamation was also given by women, whereas applaute
seems to have been confined to men.

Acclamations are of various kinds; ecclesiastical, military,
naval, senatorial, synodal, jubilaeus, theatrical, &c.

Bulls and other ecclesiastical officers, were elected by
the acclamations of the people. We meet with loud accla-
matons, musical and rhythmical acclamations, acclamations
of joy and respect, and even of reproach and contumely. The former, wherein words of happy omen were used, were also called laudationes & bona voce, or good wishes; the latter, exortationes & convicia. Of this latter kind of acclamation Suetonius has given an instance, (Oper. vol ii. p. 1056, Ed. Pitici.) on occasion of the decree for deifying the statues of Domitian, when the senate recoiled, and uttered very bitter and contumelious acclamations against the deceased. The formula used for the purpose of the acclamation was repeated several times, so that we find in Roman writers, acclamationem de diuinatis & victis, i.e. five and twenty times; and, on some occasions, much more frequently. The emperor Claudius suppressed those indelicate acclamations, which custom had introduced into the senate, as unbecoming the gravity of that respectable body. But that custom, founded on flattering, prevailed again in succeeding times; and historians have given us such influences as fully justify Claudius's contempt of it.

The acclamations of the theatres, which were at first confused and tumultuous shouts, became in process of time a kind of regular concert. Nero contributed very much to this improvement of them. When this emperor played in the theatre, a signal was given by clapping; upon which 5000 soldiers, called Augufiani, began to chant his praise, which the spectators were obliged to repeat. This business was conducted by a music-master, called Mofchorus, or Paufarius. The fervile band was divided into choruses, who performed a kind of measure in their applauses, and modulated their noises in different ways: the chief of each chorus had a salary of 40,000 sesterces.

The honour of acclamations was chiefly appropriated to emperors. On them it was bestowed to the most extravagant excess. The talk of applause was not abandoned to the rude and spontaneous voices of the crowd. Perorons of all factions and parties vied with each other on this occasion; and after conflicts which had shaken the capitol, insensibly sunk into the emulation of servitude. From either side they echoed in responsive melody the praises of the emperor; their poets and musicians directed the chorus, and long life and victory were the burden of every song. The fame acclamations were performed at the audience, the banquet, and the church; and they were repeated in all languages by the mercenaries, who sustained the real and fictitious character of the nations whose respective languages they were pronounced. Confortinius Porphyrogenitus has reduced this science of form and flattery into a pompous and trifling volume, which, says Mr. Gibbon, the vanity of succeeding times might enrich with an ample supplement. But this writer very justly observes, that the calmer reflection of a prince would surely suggest, that the fame acclamations were applied to every character, and every reign; and if he had risen from a private rank, he might remember that his own voice had been the loudest and most eager in applause, at the very moment when he envied the fortune, or conspired against the life of his predecessor. Decl. and Fall of the Rom. Emp. vol. x. p. 128. 8vo. In proof of this it may be remarked, that the acclamations of the populace were conferred on the rapid Vitellius, and the cruel Nero, as well as on Trajan, who merited the title of optimus. In the latter instance, however, they were received with lively feelings of satisfaction and delight, to which the former were utter strangers. His subjects were frequently heard to exclaim in his presence, "Happy citizens! Happy emperor! Long may he lead this great and virtuous life! Long may he hear our ardent wishes for him!" At which tender expressions Trajan blushed, and shed tears of joy; for he was sensible, it was to himself, and not to his fortune, that they were applied; and the senate, after obtaining the prince's leave with great difficulty, ordered such acclamations to be inscribed on plates of brass, that they might be a permanent monument and motive of emulation for succeeding emperors, and a lesson to teach them to distinguish between flattery and the language of the heart.

The honour of acclamations was not wholly restricted to emperors. It was also conferred on their children and favourites, and on the magistrates who preceeded at pages. We have likewise instances of its being reserved to persons of distinguished merit, as in the case of Cato and Virgil, mentioned by Quintilian. The most usual forms of acclamation were, "Plebs, ferius silent, non in fides." The actors, and those who gained prizes in the games of the circus, were not excluded from the honour.

The Greeks were accustomed in public acclamation on extraordinary occasions, as well as the Romans. Plutarch mentions an acclamation fo loud, in consequence of Memmius's restoring liberty to Greece, that the birds fell from the sky with the shout.

The Turks observe a similar ceremony on the right of their Emperors and Grand Viziers to this day; and the practice of flinging kings, conquerors, and distinguished persons, with some forms of acclamation, is very general and prevailing.

Authors and poets, who recited their works in public, were always anxious to obtain this honour; and their admirers endeavoured to render it in the most solemn and respectful manner. Sometimes presents enforced the invitations that were designed for convening numerous assemblies for this purpose. The acclamations, like those of the theatre, were attended with music, and they were adapted to the person, and to the subject: so that philosophers, orators, historians, and poets were differently distinguished. One of the most usual forms was εὔχεσθαι, ἵψος, repeated three times; but Martial comprehends other customary forms in the following verse:

"Grauiter, cito, regiutor, Euge, Beate."

Acclamations made also a part of the ceremony of marriage. Acclamations, which were at first practised in the theatre, and which passed from hence into the senate, and other departments of civil society, were, in process of time, received into the acts of councils, and the ordinary assemblies of the church. Chrysolom reproved, and checked acclamations of this kind; but Augustine received them very willingly. Sermons were applauded with the hands and feet, by leaping up and down, and exclaiming "orthodox," and by shaking the loose garments, moving plumes, and waving handkerchiefs. See Lardner's works, vol. iii. p. 81. But their principal use has always been at the solemn entries of princes and heroes; where they are usually attended with good wishes, prayers, vows, &c. Antiquity has transmitted to us several forms of acclamation, some of which we have already recited. The Hebrews used to cry, "Hosanna," the Greeks, "Αυτόφλων τοπος, good luck." The Romans addressed their princes, generals, &c. with such expressions as these, "Diu te nobis fervet; vestra fala, vestra fala i.e. May the gods preserve you for us; your safety, our safety." The acclamations of the army were generally, "Ioiti, "unmale," or "Salve Imperator." Schlemont de Acclam. Veter. Gen. 4to. 1665. Pittie, lex Ant. tom. i. p. 12. Ferrar de Acclam. et Plau. lib. i, cap. 8. Suicer. Theif. verb. 4666. Aquinss Lex. Milit. tom. i. p. 6. Bingham Orig. Ecclef. lib. xiv. cap. 4. §. 27.

Acclamation is also applied among the antiquaries to certain medals, on which the people are represented expressing their joy for some considerable favour. In this sense acclamation is also used to denote the word represented on certain medals,
medals, for the prosperity of the emperor and commonwealth.

Acclamation also denotes a method of election, practised in the academy of Arethusa.

Acclamation, in rhetoric, is a figure of speech, thus called by the Latins, and by the Greeks epiphonema.

ACCLIVIS, in Anatomy, a muscle, otherwise called obliquus coraco
dorsalis.

ACCLIVITY, the steepness, or slope, of a line or plane inclining to the horizon, taken upwards. The ascent of a hill is an acclivity; the descent of the same a declivity. Some writers of fortification use the term acclivity for talus.

ACCO in Geography. See Acre.

ACCOLA, compound of ad, to, and colere, to dwell, in a general sense, denotes an inhabitant near any certain place, in contradistinction to incola, who dwelt in it; according to the verse,

"Accolam non propriam, propriam eit incola terram.

ACCOLADE, a ceremony anciently used in the conferring of knighthood.

The word literally denotes an embrace, being formed of ad, to; et colo, or coliam, neck.

Antiquaries are not agreed, wherein the accolade properly confined. The generality suppose it to be the embrace, or kiss, which princes anciently gave the new knight, as a token of their affection. Whence the word accolade, q. d. a chipping, or taking round the neck. A very ingenious author will rather have it to be a blow on the chin of the neck, given on the same occasion. Fauchet seems to reconcile the two opinions: he supposes it to be the kiss; but withal, imagines the kiss to be intended as a stroke on the cheek, En leur bâillant sur la joue.—The ceremony being only an imitation of that practised among the Romans, in the manumission of their slaves, where it is known a blow was given. Skinner, Catenae. Orig. Franc. Colomb. Thet.

D'Hommeur.

As for the accolade, or blow, John of Salisbury affirms us, it was in use among the ancient Normans; by this it was that William the Conqueror conferred the honour of knighthood on his son Henry.

At first, it was given with the naked fist; thus Lamber
tas Ardens, describing the manner in which Baldric, count de Guines, was created knight by Thomas a Becket, says, sidem coniit in jugum militis glandium lateri et calcario juxta militis pedibus aptavit, & alapam collo ejus infictit. But this was afterwards changed into a blow with the flat of the sword, on the shoulder of the knight.

Salmonet, and after him the continuators of Moreri, mention an order in England, called knights of the accolade; so called from the manner of their creation. The order here meant is that of knights bachelors, or equites aurati. But the name, if ever, is now no longer known among us.

ACCOLE'EE is sometimes used as synonymous with ACCOLADE.

Accolée is also used in Heraldry, in divers senses, when two things are joined together, as two shields divided at the flanks, they are said to be accolée. It moreover is also applied to lions, dogs, and other animals, which have collars, or crowns about their necks; as the lion in the arms of Ogilvy; others use the term accolée, when two keys, batons, maces, swords, &c. are faltier wise, behind the shield. Nibet's Elys on Armor. English herals ordinarily say, collared, or gorged with an open crown, instead of accolée.

ACCOLTI, Benedict, the Younger, in Biography, was grandson of Benedict Accolti, the elder, who flourished about the year 1376, was born at Arcezzo, in 1415, and was distinguished about 1450, when he is said to have succeeded Foggia as secretary to the Republic of Florence. He wrote "Four books concerning the war which the Christians carried on against the Infidels, in order to recover Jadera and the holy sepulchre"; which work was printed at Venice in 1532, 4to. and serves as the ground-plot to Tasso's Jerusalem delivered; and also an account "of the excellent personages of his time," in the form of a dialogue, printed at Parma, in 1652, 8vo. He died in 1466.

Accolti, Benedict, was also nephew, or, as some say, grandson to Peter Accolti, and was born at Florence, in 1497. He made a great progress in the study of the law, and became so much a master of the Latin tongue, that he was called the Cicero of the age. He was also distinguished by a very retentive memory. The ecclesiastical honours which he enjoyed were very considerable. Leo X. gave him the bithorpe of Cadiz, Adrian VI. that of Cremona, and the archbishopric of Ravenna; and Clement VII. created him a cardinal. At the request of this pontiff, he wrote a treatise in vindication of the right of the pope to the kingdom of Naples. He left several other works, and particularly several pieces of poetry. He died at Florence in 1549. Gen. Dict.

Accolti, Frances, the brother of the former, was professor of jurisprudence in several academies, and styled the prince of lawyers. He is said to have possessed a vigorous understanding, comprehensive knowledge, and powerful eloquence. He aspired to the purple under the pontificate of Sixtus IV.; and by a forcible paraphrase amalgated large treasures. He was born about the year 1418, and died about the year 1470. He left behind him several treatises of law, and translations of some of the works of Chryfodom. Voff. de Hist. Lat. I. iii. c. 7. Gen. Dict.

Accolti, Peter, the son of Benedict the younger, was born at Arcezzo about the year 1455, and died at Rome in 1532. He was professor of law, and taught with great applause. He was employed by the popes, and raised felicetively to several bithorpe, and became a cardinal in 1511. He wrote several historical tracts. His brother, Benedict, duke of Nepi, was celebrated for the extent of his erudition, and the excellency of his poetical talents. Pope Leo X. in 1520, created him prince of the flate of Nepi. His Virgina, a comedy printed in 1553, 8vo.; and his poems, at Venice, in 1519, and 1553, were much applauded by his contemporaries. Benedict Accolti is said to have taken a lead in a conspiracy against pope Pius IV. and to have been brought to capital punishment in 1562. Gen. Dict.

ACCOMA, in Geography, a town of New Mexico, in North America, situated on a high mountain, with a strong caille, which is the capital of the province. It was taken by the Spaniards in 1599. W. long. 104° 15'. N. lat. 35°.

ACCOMACH County, in Virginia, is situated in a peninsula, bounded on the north by Maryland, east by the ocean, and west by the Chesapeak bay, and contains 13,999 inhabitants, of whom 1462 are slaves.

ACCOMMODATION, in Philosophy, the application of one thing by analogy to another. To know a thing by accomodation, is to know it by the idea of a similar thing referred to it.

ACCOMMODATION is also used in Theology; thus, a prophecyc of scripture is said to be fulfilled properly, when a thing foretold comes to pass; and improperly, or by way of accommodation, when an event happens to any place or people, like to that which occurred some time before to another. This method of explaining scripture by accommodation,
tion, serves as a key for solving some of the greatest difficulties relating to the prophecies. This convenient principle of accommodation is applicable to those passages, in which are used the strong expressions, "then was fulfilled that which was spoken by the prophet," or "this was done that it might be fulfilled which was spoken by the prophet." Wettstein, in his note to Matth. i. 22. (vol. i. p. 237-8.) has produced, in support of this principle, an example from Ephrem Syrus, and similar expressions from other writers. This principle of accommodation has been adopted, not only by Wettstein, but by Grotius, by Nicholls in his "conference with a thief," (vol. i. p. 335.) Michaelis in his "Introduction to the New Testament," (see Marth's Transl. vol. i. p. 214.) and particularly by Dr. Sykes, who has illustrated, defended, and applied it in the introduction to his "Paraphrase on the Hebrews," § 3. p. 28, &c. and in his "Truth of the Chriillian Religion," ch. 13. 14. 15.

Dr. Eckermann, professor of divinity in the university of Kiel, extends the doctrine of accommodation to every quotation in the New Testament without exception, proceeding on the hypothesis, that the Old Testament contains no prophecy, which literally and immediately relates to the person of Jesus Christ. On the contrary, Dr. Owen in his "modes of quotation used by the evangelical writers," § 5. entirely rejects the principle of accommodation, admitting, as many others have done, a typical meaning, in order to resolve the difficulties that occur in the explication of particular passages. Dr. Sykes observes, that if we were better acquainted with the Jewish phraseology, we should less hesitate in admitting the above mentioned principle. As for the particular term "fulfilled," he says, the Jewish writers often meant no more by it than the happening of a similar event, or an exact agreement in particular circumstances of latter things with former. An ingenious and much admired writer (see Paley's View of the Evidences of Christianity, vol. ii. p. 298.) speaking of those quotations in the Old Testament found in the New, some of which are applied in a sense and to events apparently different from that which they bear, and from those to which they belong in the original, observes, "it is probable to my apprehension, that many of those quotations were intended by the writers of the New Testament as nothing more than accomodations. They quoted passages of their scripture which suited, and fell in with, the occasion before them, without always undertaking to assert, that the occasion was in the view of the author of the words. Such accommodation of passages from old authors, from books especially which are in every body's hands, are common with writers of all countries; but in none, perhaps, were more to be expected than in the writings of the Jews, whose literature was almost entirely confined to their scriptures." This writer adds, "these prophecies, which are alleged with more solemnity, and which are accompanied with a precise declaration, that they originally respected the event then related, are, I think, truly alleged. But, were it otherwise, is the judgment of the writers of the New Testament, in interpreting passages of the Old, or sometimes, perhaps, in receiving established interpretations, so connected either with their veracity, or with their means of information concerning what was passing in their own times, as that a critical mistake, even if it clearly made out, should overthrow their historial credit? Does it diminish it? Has it any thing to do with it?"

The question of fact, whether the Jewish Rabbins, in quoting passages from the Old Testament with a formula of this kind; "In this the Scripture was fulfilled," did consider those passages as having themselves reference to the event to which they applied them, or grounded the quotation on a mere parity of circumstances, has been accurately examined by Surenhusius in his "Explication du Testament," printed at Amsterdam in 1713. In his third thesis, "De formulis allegandis," he compares the expression "et quippe fere in eum," with Rabbinical Hebrew formulas of a similar kind; and concludes upon the whole, that the expression is not only allusive, but demonstrative. See Quotation.

The primitive church accommodated multitudes of Jewish, and even heathen ceremonies and practices to Christian purposes; but the Jews had before done the same with regard to those of the Gentiles: some will even have circumcision, the tabernacle, brazen serpent, &c. to have been originally of Egyptian use, and only accommodated by Moses to the purposes of Judaism. Saunin's Dissect. Old Test. tom. i. p. 526. Spencer de Leg. Hebr. Difc. i. lib. 3. p. 32. Middleiott's Letters from Rome in his Works, vol. iii. p. 63.

This accommodation, in the most extensive sense of the term, is the subject of two prize dissertations in Teyler's Theological Society; and the discussion of it by Van Hemert, professor of Philosophy and Literature in the society of Remonstrants in Amsterdam, and De Vos, minister of the Baptist congregation in the same city, may be found in the 12th volume of these Dissertations. The learned Professor had prepared the way for this discussion by an oration which he had delivered upon being appointed to this office. In this discourse he maintains, that Christ, who was the wisest and best of all teachers, adapted both the manner and matter of his instructions to the capacity and habits of his hearers. With regard to the former there can be no dispute; and, as to the latter, he observes, that our Saviour manifested an evidently intended condescension to the ignorance, imbecility, and prejudices of his hearers. Whilst he avoided the discussion of subjects that were superior to the capacity of his disciples, and that philosophical train of reasoning, which would have been unintelligible to them; he made use of arguments, which, coinciding with their popular notions and national prejudices, were likely to make the deepest impression on their minds; without warranting them to conclude, that these notions were in themselves just, or that he approved them as such. That our Saviour never attempted to correct those errors of his countrymen which related to opinions merely philosophical, is abundantly evident; but there were others that might be supposed to have a more intimate connection with religion, which, however, for wise reasons, he did not think it proper to reform; either because he did not deem them of importance, or because, by opposing them, he might have unnecessarily irritated the minds of his hearers, and have rendered them averse from his instructions. In proof of this observation the Professor refers to the conversation of Christ with the woman of Samaria, his discourse with the Sadducees concerning the resurrection, his answer to the mother of Zebedee's children, and his reply to his disciples, when they believed his appearance to be that of a ghost, or spectre. He distinguishes, however, between what is essential to religion itself, and what relates merely to theology, or the mode of teaching it. The strict propriety and absolute necessity of this kind of accommodation he vindicates by a survey of the stupid ignorance and invertebrate prejudices of the Jewish nation. As proofs that our Saviour condescended to found his arguments even on the erroneous notions of his countrymen, when they suited his purpose, and did not interfere with the essential doctrines of the Gospel, he refers to Matt. xxv. 26, Mark viii. 27; to his distinction of the precepts of the law into greater and lesser, Matt. v. 19; and to his using the term Gehenna, and the judicial style of the Sanhedrin, in Matt. v. 22. The
The apocryphal and apocryphal-like literature also imitated an example, of which instances occur in 1 Thess. v. 23. Coloss. i. 16. Ephes. vi. 21. iii. 10. Rom. viii. 38. 1 Pet. iii. 22. In relating facts, the writers of the New Testament conformed to the popular opinion. Of this nature, (says this author) are all those passages which refer to demons and devils, and those which represent the devil as the principle of evil, inflicting mankind to sin. Thrice, he adds, were opinions which properly related to philosophy, and did not materially affect religion; as long, at least, as it was believed that their malignant agents were under the control of divine power, and might be vanquished by good men. The Professor is of opinion, that the existence of such a being, exercising an influence over the minds of men, and impelling them to vice and misery, is utterly inconsistent with the perfections of the Deity, with the wisdom of the divine government, and with the free and moral agency of man. The Jews had derived from the Chaldæans a notion, that the air was peopled with demons, and that some of these were confined in dark prisons, in the infernal world; and some commentators have supposed, that what the apostles Peter and Judas have said concerning the punishment of angels, was borrowed from the apocryphal book of Enoch, which might probably have been written by some Hellenized Jew. Of the acquiescence of the writers of the New Testament in the current, but erroneous notions of their countrymen, this author mentions St. John’s account of the wonderful virtues of the pool of Bethesda, and what St. Luke says of the Sadducees in Acts xxvii. 8. There are also many cases, in which Christ used, what logicians call, the *argumentum ad hominem*; of which there is a striking example in the answer given to the Pharisees, when they accused him of casting out devils by Beelzebub. Thus also, in the parable of the rich man and Lazarus, Christ founded his description of the future state of reward and punishment on the notions of the Jews concerning their paradise and gchenna, which were nearly the same with those of the Greeks and Romans concerning the Elysian fields and Tartarus. See also Luke xxi. 30. The acquiescence of Christ and his apostles in the prejudices of their countrymen is also evident in the quotations from the books of the Old Testament. These, as their classic authors, the Jews cited on every occasion; but being, like all the orientalists, very fond of allegory, they supposed that, beside the obvious and literal meaning of these writers, they which they considered as comparatively of little value, there was a hidden and mysterious sense which referred to the Messiah and his kingdom. With this custom, says this Professor, though in itself injudicious, the writers of the New Testament judiciously complied. Hence, he adds, most of, if not all, the passages of the Old Testament, which are quoted in the New, are adduced in a sense very different from their primitive signification, and form a kind of *argumentum ad hominem*, founded on the principles of those to whom they were addressed. Of the same kind of accommodation to Jewish prejudices the author deems the condensation of St. Paul in adopting the puerile allegories of the rabbies concerning Sarah and Hagar in Gal. iv. 24; and that of the apostles Peter and Jude, in referring to a fable, related in some apocryphal book, of a dispute between the archangel Michael and the devil about the body of Moses. Such are the outlines of the Differtation above cited, in which the author produces other instances of accommodation. The Pharisees believed the metempsychosis or transmigration of souls (see Josephus Bell. Jud. i. vi. e. 8); and M. Hextem. imagines, that they applied this hypothesis to the prophecy in Malachi iv. 5; and that our Lord did not contradict it in his discourse with his disciples, Matt. xvi. 14. And again, he apprehends, that in Matt. xi. 14, Christ not only forbears to correct this notion of the Jews, but indirectly allows it, as what he did not at that time think proper to oppose; and thaws them that, even on this hypothesis, the prophecy of Malachi was fulfilled. The blended accounts that are given of the resurrection of Jerusalem, and of the resurrection and last judgment in Matt. xxv. 35, &c. are considered by this writer as an acquiescence in the popular notion, with a view of animating the first Christians to constancy and diligence amid the peculiar difficulties which they had to encounter. The Professor having by each mode of reasoning fixed the fact, proceeds to inquire how far this hypothesis of accommodation to popular notions may be extended, consistently with the veneration and esteem due to the character of our Saviour and his apostles. Whilst our Lord generally left physical errors uncontradicted, he constantly opposed those prejudices and mistakes that were contrary to the perfection of God’s impartial love to all mankind, or detrimental to the nature and principles of practical piety and virtue. In answer to the objections which may be alleged against his hypothesis, the Professor begins with evincing the absurdities to which those have been reduced, who have endeavoured to vindicate the philosophical accuracy of the Scriptures. In accommodating their instruction to the different capacities of those to whom they were communicated, and adapting them to the peculiar character of their age and nation, as well as to their particular prejudices and habits, Christ and his apostles did no more than what might be expected from wise teachers, endowed with a divine commission; and they who on this account object to them, manifest an ignorance of the human heart, as well as of the office of an instructor of mankind. They also miscarry further the design of Christ’s mission; which was not to make his hearers philosophers, nor even to instruct them in all those particular truths which may be considered as influencing religious opinions. Mankind in general, and the Jews in particular, were not qualified to receive such instruction. Without this accommodation the design of our Lord’s mission would have been counteracted and defeated, if either he or his apostles had encountered every error of the age and nation to which they were sent. To those who allude that, among the instances cited by the author, of popular errors, in which Christ and his apostles are supposed to have acquiesced, there are some which relate to the essential doctrines of the gospel; he replies, that while he allows that important truths might sometimes be inculcated on the attention of the people, by arguments founded on their own erroneous notions, he absolutely denies that these notions themselves have any necessary connection with the essential truths of the gospel. Perhaps, he adds, it may be asked, whether the existence and power of the devil he not religious tenets?—but by whom, or on what foundation, were these ever made articles of Christianity? Does the belief of such an enemy of mankind at all contribute to promote that integrity, and that sanctity of heart and conduct, which the Saviour came to establish? Or is not this notion rather calculated to fill the weak and superstitious with vain terrors? For this reason, says this Professor, the apostles, though they did not contradict the popular notion, took care to obviate its pernicious consequences by always representing the devil as vanquished by Christ. Is the belief of demons that inhabit the air, that haunt the defert, or that infilt magazines into the bodies of men and afflict them with diseases. an essential doctrine of the gospel? May we not believe the Christian doctrine of a future state of retribution, without acquiescing in the notions of the Jews concerning paradise and
and gehenna, and cultivate a firm hope of the resurrection of the dead by Christ,witout believing that the archangel will found a trumpet to awaken us from the sleep of death? Is it necessary to our belief that Jesus is the Christ of God, that we refer to him all those passages which the Jewish doctors, and, after their example, the Jewish converts to Christiandity, from their love of allegories and types, explained as relative to him? &c. &c.

In a word, if we consider the genuine nature of our religion, as taught by our divine master, we shall see, says the author, that none of the instances, in which it has been here supposed, that Christ and his apostles accommodated their instructions to the prejudices and notions of their countrymen and contemporaries, have any necessary connection with the design of the gospel, or interfere with any of its essential truths. The Professor proceeds to specify some rules by which we may discriminate those passages of scripture that may be considered as instances in which the sacred writers acquiesce in popular prejudices; and he closes with some observations on the utility of this hypothesis of accommodation in explaining the scriptures. M. De Vos traces nearly the same ground of argument; but without extending the hypothesis of accommodation so far or so intrepiditycontrovert ing received opinions; opinions which the reader of this article will not incautiously reject, and without the previous hesitation and subsequent examination which they demand.

ACCOMMODATION, in Law, is used for an amicable agreement or composition between two contending parties. Thus we say, the process is become so intricate and perplexed that there is no hope of getting out of it but by an accommodation. These accommodations are frequently effected by means of compromise and arbitration.

ACCOMPANIMENT, something attending or added as a circumstance to another; either by way of ornament, or for the sake of symmetry, or the like.

ACCOMPANY, ACCOMPAGNAMENTO, ACCOMPAGNATURA, in Music, implies the instruments that accompany the voice, solo, or concerto, to sustain the principal part, whether vocal or instrumental, as well as to enrich the harmony.

The Crucif Dictionary gives no authority from early writers in Italian, of accompagnamento, accompaniment, being used as a technical term. In the fourth and last acceptance of the verb accompagnare, it is only said, in general, to be a musical term, signifying "to play on an instrument in harmony with the voice;" and this definition appears in no edition anterior to that of 1746.

Italian musical terms have now been adopted by all Europe; yet we are acquainted with no professed musical dictionary in that language. But the words peculiar to the art being taken from the common language of the country where it was first cultivated, they need no explanation to the natives; yet, in other countries which have derived their knowledge, or at least, their taste, from the Italians, these words are become technical, and need a glossary.

To write, make, or compose, an accompaniment, are synonymous terms with musiciens, for setting, or adding parts for violins, flutes, or other instruments, to a melody, vocal or instrumental, in order to be performed with it. In the early operas the accompaniments were very thin. In the first operas, indeed, none appeared, except in the symphonies and choruses; but, in process of time, as dramatic music advanced towards perfection, it was found that effects could be produced by the orchestra which were picturesque, coloured sentiments, and augmented auricular pleasure. A simple melody, unless performed by a great finger, became inaudible. But, though much ingenuity and science appear in a rich and full accompaniment on paper, yet in performance, the composer and the orchestra frequently abuse their power, and tyrannize over the voice, which they should cherish, and dignify the poetry by complication and noise, which they should help to explain and enforce. And it is a general complaint at the opera, when a cantilena, or vocal part is good, and performed by a finger of the first class, that the accompaniments are too loud—imp causa, say the French, e n t r o c o r d i t i e, c r y t h e I t a li a n .

Accompaniment is likewise another word for thorough-bass, by giving in chords the whole harmony on which the melody is built. These chords are exposed by figures over the base, which figures supply the place of a suitable part for the right hand on keyed-instrument.

The rules for accompaniments are few, with respect to harmony, but their use depends on judgment and taste. Some, fond of crowded harmony, think it can never be too loud or full; while others, who prefer a simple and beautiful melody to the most artful combinations of kindred sounds, almost think harmony a grievance. There are who prefer a meagre and monotonous accompaniment in triplets; and others imagine that the voice is bell supported by being accompanied in unison. But Rouffeau, in enumerating the qualifications of an accompanist, has settled this point: "Whoever undertakes to accompany a song or solo, should be a confidante musician, well skilled in harmony, and the construction of the several parts; should have a nice and cultivated ear, a hand prepared for all difficulties of execution in the bass, and modulation into different keys, with a sound judgment and good taste. It is the business of the accompanist on the organ, harpsichord, or pianoforte, to give the pitch to the several instruments, and the time to the whole hand; to have always under his hand the note which the finger is about to deliver, in order to correct, if falls, and enforce, if feeble; and, at the beginning of an air or movement, to mark with energy and precision the several portions of the bar, that the orchestra, if a quick air, may proportion the rapidity to the abilities of the finger; and, whether quick or slow, indicate such a specific motion as suits the genius of the composition, and the design of the composer. But, above all, whoever is accompanying another to whom the principal melody is assigned, should remember, that he is a servant, an humble attendant on a temporary superior, and should suppress all ambition of shining at the expense of the voice or instrument which he accompanies."

A great player accustomed to be listened to with delight, and appraised with nuptiae, seldom accompanies well; his fingers itch to be in action, and to call the attention of the audience from the principal performers to himself.

No general rules can be given for accompanying that will be applicable on all occasions. After the harmony is well known, and the hand well exercised, experience, good taste, and propriety must do the rest. Accompaniment, though it require little brilliancy of execution, is the last thing which a practical musician acquires. There is nothing which a finger so much dreads as an ignorant or injudicious accom panist. If ignorant himself, the finger wants assistance; if his taste is refined, and his voice good, all his art and natural powers are destroyed by a clumsy accompaniment.

Nothing but confluence experience, and a familiar acquaintance with all styles, with the best compositions of great masters, and the being able to grasp at a single glance a whole line of a score, and occasionally select the most important passages in the instrumental parts to play with the right hand, instead of the chords, can completely qualify a performer.
performer on a keyed-instrument to accompany a good or a bad finger.

Rouvenian, though no deep theorist, had a very good taste in music, and excellent views concerning its refinements and effects; and, in his "Letter on French Music," the best piece of criticism on the art, perhaps, that has ever been written, speaking of accompaniment on the harpsichord, he says: "when harlequin operas were first performed at Paris, every one was struck at seeing the manager's son, a child of ten years old at most, accompanying the fingers, and producing with his little fingers effects so different from those of M. Noblet, the usual performer on the harpsichord, a good harmonist, and exact in giving the full complement to each chord. But what was my surprise in watching the hands of the little man, and observing that he hardly ever gave the whole harmony to the base; but suppressing many of the sounds, and frequently using only two fingers, with one of which he generally played the octave to the base, and with the other the interval most important in the melody! What! says I to myself, has a matutined harmony more effect than one that is complete? And do our thorough-bass players, by giving the full chords, produce only a confused noise, while this child with fewer sounds enforces the melody more, and renders the accompaniment more useful and agreeable? This was a problem which I was unable to solve; but I became more sensible of its importance afterwards, by observing that all the Italians accompany good fingers in the same manner as this infant did; and upon the same principle as the composers have their fancies thin, often making the tenor play only in octaves above the base, and the second violin in octaves below the first. I remembered that I had read somewhere in Rameau, that every concord had a different character, or power of affecting our sensibility, peculiar to itself; that the effect of the 3d was different from that of the 5th, the 4th from the 6th. In the same manner 3rd and 6ths minor must produce different affections from those of 3rds and 6ths major. These facts once established, it evidently follows, that even discords and every kind of interval will be included in the rule: an idea which reason confirms, since, when the relations are different, the impression cannot be the same."

The reasoning of the citizen of Geneva on this principle is very specious and ingenious. "I see clearly," continues he, "that, by adding concord to concord, injudiciously, though agreeable to the doctrine of chords, by augmenting the harmony, we may weaken and counteract the effect of each sound. If the entire and pure effect of a 5th, be necessary for the expression which I want, I ilk the weakening this impression by a 3d found, which, dividing the 5th into two 3rds of different kinds, though when bruk together the harmonical effect is good, yet they may mutually diminish the peculiar effect of each other. In like manner, if the simultaneous impression of the 5th and two 3s were necessary to my design, I should fail in producing the effect I intended by retrenching either of the 3s from the chord. This reasoning becomes still more intelligible, applied to discords."—"It follows from all this, that, after having well studied the elementary rules of harmony, the musician should not hastily lavish it inconsiderately, nor believe himself a composer because he can crowd the chords with unmeaning notes; but, before he begins to combine sounds, he should apply himself to a much longer and more difficult study: that of the different impressions which the concords, discords, and all the intervals make on the ear of sensibility, and often fay to himself, that the great art of a composer consists no less in discerning what sounds occasionally to

suppress, than what to admit. It is in studying and turning over incontinent the master-pieces of Italy, for vocal music, (and of Germany for instrumental, he would now have added) that a composer would learn to make this exquisite choice, if Nature has given him sufficient genius and taste to feel its necessity; for the difficulties of the art are only perceived by those who are able to vancipitate them; and such will not treat with contempt the vacant lines in a score; but, seeing with what ease a mere Tito might fill them up, they will suspect, and seek the reasons for this seeming simplicity: so much the more admirable, as it conceals prodigies under a feigned negligence, and that l'art due tutto far, nulla si ferspire. These seem to me (continues Rouvenian) the emblems of those surprising effects which the Italian music produces, though much less crowded with harmony than ours, (that is, the old French music) of which the effects are so small and the labour so great. This does not imply that a score should never be full, but that it should be filled with choice and discernment, neither is it to say that to accomplish this, the musician should make all these reflexions; but that he should feel the refult. It is his business to have genius and taste to find these effects, and that of the theorist to feck and explain whence they arise."

To accompany recitative on a keyed-instrument, where no regular time is observed, and the singer utters in musical tones, a ffoliope or dialogue, under no more restraint, as to measure, than if he were declaiming in common speech, the instrumenatal accompanier must attentively read the words, and dirike the chord firmly which is given to the most accented and energetic part of a verse or period, exactly when it is pronounced by the singer, except at a clofe or termination of a fene or period, when two chords are given without the voice: one to the base of the 5th of a key, with a sharp 3d, and the other usufally to the key note, in whatever key the modulation is carried; but this expectation is often disappointed, except at the clofe which immediately precedes the air.

We shall pursue the subject of Accompaniment still further, under the articles Harmony, Chords, Thorough-bass, Regle de l'octave, Figuring a base, and Recitative.

Accompaniments, in Heraldry, are all fuch things as are applied about the field by way of ornament, as the belt, mantlings, supporters, &c. A thing is also said to be accompanied when there are several bearings or figures about some principal one, as faltier, band, fefs, chevron, or the like.

Accompaniments, in Painting, denote fuch objects as are added by way of aptitude or ornament to the principal figures; as dogs, guns, game, &c. in a hunting-piece.

ACCOMPLICE, compounded of ad, to, con, together, and ficulare, to fold, in Law, one that has a concern in a busines, or that is privy in the fame defign or crime with another. See Accessory.

By the law of Scotland, the accomplice can only be prosecuted after the conviction of the principal offender; unless the accression of the accomplice be immediate, in ipso actu, so as in effect to render them co-principal. By the general rule, the accomplice suffers the fame punishment with the principal offender. Yet if he be remarkably less guilty, justice will not permit equal punishment. The council of Sens, and several other synodical statutes, expressly prohibit the revealing of accomplices. See Discovery of accomplices.

ACCOMPLISHMENT, in a general sense, the entire execution, achievement, or fulfilling of something proposed, or undertaken.
ACCOMPLISHMENT, in Theology, is principally used in speaking of events foretold by the Jewish prophets, in the Old Testament, and fulfilled under the New. In the writings of biblical commentators and critics, we read of a literal, mystical, typical, single and double accomplishment. Prophecy may be accomplished either directly or by way of accommodation. See Prophecy.

Accomplishment is more particularly used for any personal endowment, mental or corporeal.

ACCOMPT. See Account.

ACCOUNT, in Law, is a verbal agreement between two, at the least, to satisfy an offence which the one hath committed against the other; whether it be a trespass, or the like; for which the one agrees to make, and the other to accept, a certain satisfaction. This, if executed, becomes a good bar in law to any suit to be brought for the same matter. Accord with satisfaction is a good plea in personal actions, where damages only are to be recovered, and in all actions, which appose a wrong, 

vi et armis, where a capias and exigens lay at the common law, in trespass and ejectment, &c. So in an appeal of Maileon. But in real actions, it is not a good plea. 4 Rep. i. 970. 9 Rep. 77. By several late statutes, particularly 11 Geo. II. c. 19, in case of irregularity in the method of distraining, and 24 Geo. II. c. 24, in case of mistakes committed by justices of the peace, even tender of sufficient amends to the party injured is a bar of all actions, whether he thinks proper to accept such amends or not.

ACCOUNT, in Music, is more usually called Concord. It is also used by old authors for Chord.

The word is formed, according to fome, from the Latin ad, to, and cor, the heart; but others, with greater propriety, derive it from the French corde, a string; on account of the agreeable union between the sounds of two strings struck at the same time. Whence also fome of the connoisseurs in music are called tetra chord, hexachord, &c., which are a fourth and a sixth.

ACCORDER, Ital. to tune instruments.

ACCOUNT, Fr. to agree.

ACCOUNT, in Painting, denotes the harmony that prevails among the lights and shades of a picture.

ACCOUNTS, Stephen Tabourot, Seigneur des, in Biography, an advocate in the parliament of Dijon in France, was born in the year 1549. The lordship of Accords is an imaginary fief or title, derived from the device of his ancestors, which was a drum, with the motto, à tous accord, “chiming with all.” S. Accords was a man of genius and learning, but too much addicted to trifles, and to a licentious mode of writing. This appears from his piece entitled “Les Biguarres,” printed at Paris in 1582; and another called “Les Touches,” published at Paris in 1585, which is a collection of witty poems indiscreetly written. Bayle.

ACCOUNTED, in Heraldry, a term not often used, but of the fame signification with Cottised.

ACCOUNTICHER, and ACCOUNTICHEUSE, Fr. a man or woman practising midwifery.

ACCOUNTMENT, Fr. the act of delivery.

ACCOUNTMENT premature, Atirement, or Faussé Couche, Fr. the premature exclusion of a fetus.

ACCOUNT, or ACCOMPT, of ad, to, and computa, a computation, in Arithmetic, a calculation, or computation of the number or order of certain things; as the computation of time, &c. There are various ways of accounting, as by enumeration, or telling one by one, and by the rules of arithmetic, addition, subtraction, &c.

ACCOUNT, in Chronology, is nearly synonymous with Vol. I.

STYLE. We account time by years, months, &c. the Greeks accounted it by olympiads; the Romans by indentions, libres, &c.

ACCOUNT is also used in respect of a company or society, when two or more persons have received or disbursed money for each other; or when this has been done by their order or commission.

ACCOUNT, or ACCOUNTS, is also used collectively, for the several books or registers which merchants keep of their affairs and negociations.

There are divers kinds of accounts among merchants, as personal, real, imaginary, general, particular accounts, &c.

ACCOUNT, personal, are those which discover what each person, or subject, with whom a man has dealings on credit, owes to, or has owing to him.

ACCOUNT, real, are those whereby a dealer discovers what effects are on hand at any time, and what is gained or lost on each.

Every account is distinguished into two parts, for which two opposite pages are assigned of one folio or opening; the name of the person with whom a man has account being written on the top of each, with the word debtor on the left side, and creditor on the right.

ACCOUNT, personal, is to contain on the debtor side what the person owes me, and the payments I make to him; and on the creditor side, all that I owe to him, and the payments he makes of his debts to me.

ACCOUNT, real, must contain on the debtor side the quantity and value of what was upon hand at the beginning of the account, and all afterwards received, with the costs and charges thereof; and on the creditor side, the quantity and value of what is disposed of or any way taken out of it, with the returns made by it.

ACCOUNT, imaginary, are then brought in to make a balance between credit and debt, and in cases where the real and personal accounts will not in the articles belonging to them make, as they usually do, such balance.

The chief of these is the account of profit and loss; on the debtor side of which are entered all losses, and on the creditor side all gains. Such also is the stock account, &c.

ACCOUNTS, sundry, when one account is balanced by sundry, i.e. when one is debtor or creditor for a sum, and sundry accounts creditors or debtors for the parts of the sum; it is entered under the head of to, or by, sundry accounts.

ACCOUNTS, general, are those where all the goods of the same name are put into one account.

ACCOUNTS, particular, are those where each species, or subdivision of things under the same name, have their separate account.

ACCOUNT, open, is used for an account not liquidated or settled.

ACCOUNT, in bank, is a fund of money, which merchants, or others, place in the common cash of a bank, to be in readiness for the payment of bills of exchange, or promissory notes, purchases, and other debts contracted in the course of business.

ACCOUNT, current, amounts to the same with an open account.

ACCOUNT, opening on, with any one, signifies the placing him, for the first time, in the great book. This is done by writing his name, surname, and place of residence in large characters, and afterwards charging him with articles, either of debtor or creditor, as affairs turn up. When an account is opened with any person in the great book, his name is at the same time to be entered in the index or alphabet book, with the page wherein his account is to be found.

ACCOUNT, placing a sum to an, is to enter down in the great
great book the several particulars for which a person becomes either debtor or creditor.

Account, examining on, is the reading it exactly over, pointing the several articles, and verifying the computation, in order to find whether there be any error, and whether the sum total, or the balance, be just.

Account, calling up, or closing on, is the flatting and settling of it, to find the balance: this is called also balancing or settling an account.

Accounts are closed in the great book, on two occasions: the first, when it is required to terminate an affair entirely, either with debtors or creditors, in order to learn what is due. The second, when it is necessary to carry on the account to another page of the same book, or to a new book, for want of room.

Account, balance of an, is the sum by which the debt exceeds the credit, or vice versa, upon flatting or settling of it.

Account of sales, is an account given by one merchant to another, or by a factor to his principal, of the dipofals, charges, commission, and net proceeds of certain merchandise, lent for the proper, or company, account of him, who confined the name to such factor or vender.

When the like account is inland or domestical, the name is transmitted in the current money of that country wherein the business is transacted. As from a Blackwell-hall factor to the clothiers in the country, or from the warehousemen in town, who deal by commission for the country manufacturers.

Account, money of, is an arbitrary species, contrived for the facilitating, and expediting the taking, and keeping of accounts. Such are pounds sterling in England; livres and folis in France; roupces in India; milreis in Portugal.

Accounts, books of, of merchants and tradesmen, are considered as a fort of private instruments, and in the civil law, and law of merchants, are allowed to make a half proof. The reason is, that merchants are often under a necessity of dealing on trust without note or writing. Hence the suppletory oath of the merchant, with his book of accounts, is admitted abroad as a full proof against his chimney. But in England this is under some limitation. See stat. 7 Jac. I. c. 12. which confines this species of proof to such transactions as have happened within one year before the action brought; unless between merchant and merchant, in the usual intercourse of trade.

Account, or Accrunt, in a legal sense, is a particular detail or enumeration, delivered to a court, a judge, or other proper officer or person, of what a man has received or expended on the behalf of another, whose affairs he had the management of.

In the remembrancer's office in the exchequer, are entered the states of all the accounts concerning the king's revenues; for customs, excise, subsidies, &c.

The great accounts, as those of the mint, wardrobe, army, navy, tents, &c. are called imprest accounts.

All accounts which pass the remembrancer's office are brought to the office of the clerk of the pipe. See Tally and Auditor.

Account, in Common Law, denotes a writ or action which lies against a person, who by his office ought to give an account, but refuses.

A writ or action of account properly lies only against bailiffs, receivers, and guardians in suo caso; though others are also brought in as a secondary intention. By 4 and 5 Anne, actions of account may be brought against the executors and administrators of guardians, bailiffs, receivers, &c. and by one joint-tenant, &c. against the other, his executors and administrators, as bailiff, for receiving more than his share: however, actions of account are now very seldom used; the most ready and effectual way of setting matters of account being by bill in a court of equity.

Accounts, chamber of, in the former French policy, is a sovereign court of great antiquity, where the accounts relating to the king's revenue were delivered in, and registered. This answers pretty nearly to the court of exchequer in England.

There are presidents of accounts, masters of accounts, correctors of accounts, &c.

ACCOUNTANT, or Accurant, in a general sense, denotes a person skilled in accounts. In a more limited sense it is applied to a person, or officer, appointed to keep, or make up the accounts of a company, office, court, or the like.

Thus there are accountants in the custom-house, the excise, bank, South-Sea, and East India-house.

ACCOUNTANT-General, an officer in the Court of Chancery, appointed by act of parliament, to receive all monies lodged in court, instead of the masters, and convey the same to the bank of England for security. Counter-balancing the hand of the accountant-general is felony without clergy, by 12 Geo. I. c. 32.

ACCOUNTSHIP, the act of keeping and balancing accounts. See Book-keeping.

ACCOUNTS, Public, Commissioners of, are five persons appointed by letters patent under the act of 25 Geo. III. c. 52. who are invested with the powers formerly entrusted to the auditors of the imprest, and who receive salaries paid out of the aggregate fund, not exceeding in the whole 6000l. They hold their office quamdiu se bene gesserint, except two of them, who are comptrollers of the army accounts, and who continue comptrollers for long only as they are comptrollers. The Treasury likewise appoints officers, clerks, &c. to make up and prepare for declaration the public accounts of the kingdom, and all charges are allowed out of the aggregate fund to an amount not exceeding 6000l. per annum, which sum precludes all fees and perquisites. The purposes for which these commissioners are appointed are to examine and state in what manner, and at what times, the receipts, issues, and expenditures of the public monies are now accounted for; and to consider and report, by what means and methods the public accounts may, in future, be pass'd, and the accountants compelled to pay the balances due from them, in a more expeditious, more effectual, and less expensive manner. The commissioners have already made a great number of reports.

ACCOUNTREMENT, an ancient term used for an habitation; or a part of the apparatus and furniture of a folliar, knight, or even of a gentleman.

The word is formed from the ancient German, Lasten; whence cosse, a name used in some cathedrals in France, as at Bayeux, for the sacriflan, or officer, who has the care of furnishing, and setting out the altar, in the church; called in German Lasten, vocation.

ACCRETION, of ad, to, and refsers, to grow, in Physia, the growth or increase of an organical body, by the accesion of new parts: also a growing together, as of the fingers to one another.

Accret is of two kinds; the one consisting in an external apposition of new matter. This is what we otherwise call, juxtaposition; and it is thus, stones, shells, &c. are supposed to grow.

The other is by some fluid matter received into proper vessels, and gradually brought to adhere, or grow to the sides
AC

fides thereof. This is what we call introspection; and it is thus that plants and animals are nourished.

Accretion, in the Civil Law, denotes the union or accession of a thing vague or vacant, to another already occupied or disposed of.

A legacy given to two persons jointly, *tam re quem vexeris*, falls wholly to him that survives the testator, by right of accretion. Allusion is another species of accretion.

Accroche', in Heraldry, denotes a thing being hooked into another. Coats Herald.

Accroching, in old Law books, the act of incroaching or usurping on another's right; and particularly the attempt to exercise royal power, which was a very vague charge, and led to a multitude of constructive treasons. These are limited and defined by Stat. 25 Ed. III. cap. 2. The word is originally French, *accrocher*, which signifies to fallen a thing by a hook.

Accrew, or Accrue, in Law, is understood of a part that accedes to, or follows the property of, another part or person.

Accrued, in Heraldry, a term applied to a tree full-grown.

Accubation, a posture of the body, between sitting and lying.

The word is compounded of *ad*, to; and *cubo*, I lie down. Accumulation, or accumulus, was the table posture of the Greeks and Romans; whence we find the words particularly used for the lying, or rather, as we call it, sitting down to mealt.

The Greeks introduced this posture. The Romans, during the frugal ages of the republic, were strangers to it. But as luxury got footing, this posture was adopted, at least by the men; for as to women, it was reputed an indecency in them to lie down among the men; though afterwards this too was got over. But children did not lie down, nor servants, nor soldiers, nor persons of meaner condition; but took their meals sitting, as a posture less indulgent.

The Roman manner of disposing themselves at table was this; a low round table was placed in the cenaculum, or dining-room, and about this usually three, sometimes only two beds, or couches; according to the number of which, it was called *biclinium*, or *triclinium*. These were covered with a sort of bed-cloaths, richer or plainer, according to the quality of the person, and furnished with quilts and pillows, that the guests might lie the more commodiously. There were ordinarily three persons on each bed; to crowd more was esteemed forbid. In eating they lay down on their left sides, with their heads resting on their pillows, or rather on their elbows. The first lay at the head of the bed, with his feet extended behind the back of the second: the second lay with the back of his head towards the navel of the first, only separated by a pillow, his feet behind the back of the third; and so of the third, or fourth. The middle place was esteemed the most honourable. Before they came to table they changed their cloaths, putting on what they called *cenatoria vestitas*, the dining garment, and pulled off their shoes, to prevent soiling the couch. Pituji.

Lex. Ant.

Accubitor, an ancient officer of the emperor of Constantinople; whose business was to lie near the emperor. The accubitor was the head of the youths of the bedchamber, and had the cubicularius and procubitor under him.

Accumulation, compounded of *ad*, to; and *cumulus*, heap; the act of heaping, or amassing several things together.

Accumulation, in a legal sense, denotes a concurrence of several titles to the same thing; as, when a person claims lands, a benefice, or the like, in virtue of several titles, or pretensions of different kinds; e.g. by death, by renunciation, &c. Or it denotes a concurrence of several circumstances to the proof of one fact; thus, we read of accumulative treason, which is, where a fact is not treason in itself, but becomes so by an accumulation of circumstances.

The earl of Strafford was condemned of accumulative treason; none of the facts alleged against him amounting singly to treason. But his attainer was reversed by 13 & 14 Car. II. cap. 20.

Accumulation, in the ancient Agriculture, denotes the operation of covering up the roots of trees, by throwing on them the earth that had been before dug from them; in which sense, accumulation stands opposed to *ablation*.


Accumulation of arms, *cumulatio armorum*, in Heraldry, is what the moderns call quartering of arms, *Nilot*.

Accumulation of Degrees, in an University, is used for the taking of several degrees together, and with fewer exercises, or nearer to each other, than the ordinary rules allow of.

Accursed; something that lies under a curse, or sentence of excommunication.

In the Jewish idiom, *accumus* and *crucificus* were synonymous. Among them, every one was accounted accursed, who died on a tree.

This serves to explain the difficult passage in Rom. ix. 5, where the apostle Paul wishes himself accursed after the manner of Chrift, i.e. crucified, if happily he might by such a death save his countrymen. The preposition *et* here made use of, is used in the same sense, 2 Tim. i. 3, where it obviously signifies after the manner of.

Accursius, in Biography, a professor of law in the 13th century, born in Florence, who, on account of his great authority, was called the idol of the lawyers. Three other lawyers of eminence had the same name.

Accursius, Maximillianus, a famous critic of the 16th century, born at Aquile, in the kingdom of Naples. His *Diatribe*, printed at Rome in 1524, fol. on Autonius, Solinius, and Ovid, evince his distinguished erudition. In his edition of Ammianus Marcellinus at Augsburg, in 1533, there are five books more than in any preceding ones, and he says that he had corrected 5000 errors. Although his predominant passion was the collecting of old MSS, he nevertheless made Latin and Italian verses, was matter of the French, German, and Spanish languages, and under- stood optics and music. Having been charged with plagiarism in his edition of Autonius, he purged himself by oath. Bayle.

Accursius, or Accorso, Francis, the elder, an eminent lawyer, was born at Bogno, near Florence, in 1182, and became professor of law in the university of Bologna, where he had studied. He undertook the great work of forming into one confluent and harmonious whole, the numerous commentaries on the Code, the Institutes and the Digests. This work, intitled, "A perpetual Commentary," was much valued, and is printed with the "Body of Law," published in six volumes folio, at Lyons, in 1627. Accorso died very rich, in 1260. His son, the younger Francis Accorso, succeeded him in the chair of law; and, in 1273, accompanied Edward I. on his return from the crusades to England. Gen. Dict.

Accusatium, among Physicians, is a word of the same import as *indicatio*.
ACCUSATION, compounded of ad, to; and confari, to plead, in the Civil Law, the charging any person with a criminal action, either in one's own name, or on behalf of the public.

By the Roman law, there was no public accuser for public crimes; every private person, whether interested in the crime or not, might accuse, and prosecute the accused to punishment, or absolution. Cicero, in the Senate, when one of his party was found guilty of the murder of his master, accused the murderer and went before the judge to procure his sentence. Cato, who accused the most innocent persons of his age, had been accused forty-two times, and acquitted as often. But the accusation of private crimes was never received unless from the mouths of those who were immediately interested in them. Thus, none but the husband could accuse his wife of adultery. Indeed, it was not properly an accusation, except in public crimes; in private ones, it was called simply action, or intending an action, intendere accidere, or liter. When the accused accuses the accuser, it is called reformation, which is not admitted till the accused has been first purged.

The ancient Roman lawyers distinguished between condemnatio, delatio and accusatio: for, first, leave was desired to bring a charge against any one, which was called populare; then he, against whom the charge was laid, was brought before the judge, which was called dextra; or dominus delatio: lastly, the charge was drawn up, and preferred, which was properly the accusatio. Voet, Etym. Lat. The accusation properly commenced, according to Pardianus, when the reus, or party charged, being interrogated, denied he was guilty of the crime, and subscribed his name to the delatio made by his opponent. Calv. Lex. Jur. p. 17.

The accusers, or actors, as they are called, were, by the laws of Pompey, A. U. C. 702, allowed two hours for pleading their cause, and the party charged three hours for a reply. Dion. Caes. lib. xl. 52. tom. i. p. 255, Ed. Reinar. They had a recompense assigned them, part of the property of those who were condemned, and they were frequently honoured with the superior offices of the state.

By the cruel laws of the inquisition, the accused is forced to accuse himself of the crime objected to him. There are three ways of entering an information in the tribunal of the inquisition. The first, by way of inquisition, when a private person, applying to the inquisitor, declares he will neither be denunciator, nor accuser, but that common fame gives out, that such and such a person is a heretic: the second, by way of accusation, when the informer takes on him the office of accuser, which rarely happens, because in this case, the accuser is obliged to prove, and exposes himself to the lex salutis, if his information should prove false. The last, and most usual way, is by denunciation, that is, by naming thoes who know the fact.

It has formerly been the custom in some parts of Europe, where the accusation was very heavy, either to decide it by combat, or at least to make the accused purge himself by oath; which, however, was not admitted, unless a certain number of his neighbours and acquaintance swore together with him.

In the French law, none but the procureur general, or his deputies, can form an accusation, except for high treason, and coinage, where accusation is open to every body. In other cases, private persons can only act the part of denouncers, and demand reparation for the offence, with damages.

In Britain, by Magna Charta, no man shall be imprisoned or condemned on any accusation, without trial by his peers, or the law: none shall be vexed with any accusation, but according to the law of the land: and no man may be molested by petition to the king, &c. unleas it be by indictment or pre-
Thus, when we say, "the prince loves the princes," and "the prince loves the prince," the prince is the nominative in the first, and the accusative in the last; and the prince or the prince, the accusative in the first, and the nominative in the second. ACE, a card or die, marked only with one point.

Aces, in Ancient Geography, a name given by several of the ancient writers to the city afterwards called Ptolemais, and now Acre. Strabo, Geog. vol. ii. p. 1099.

ACELA, a city of Lycaia.

ACEDAMAS, was a place without the south wall of Jerusalem, beyond the river of Siloam, and was called the Potter's field, (Matt. xxiii. 31.) because they dug out of it the earth of which they made their pots, and the Fuller's field, because they dried their cloth there; but being afterwards bought with the money by which the high priests and rulers of the Jews purchased the blood of Jesus Christ, it was, by the Providence of God so ordering it, called Acedama, i. e. the field of Blood. Acts ii. 19.

ACELIUM, or Acelum, a town of the Venetian territory, now called Asolo, or Asala, situate to the west of Trevisi, at the source of the rivulet Muffone. E. long. 13°. N. lat. 45°.

ACENTETUM, or Acentata, in Natural History, a name given by the ancients to the purest and finest kind of rock crystal. They used the crystal in many ways; sometimes engraving on it, and sometimes forming it into vases and cups, which were held next in value to the Murkhus Vince of those times. The crystal they obtained from the mines of Cyprus was much esteemed, but often faulty in particular parts, having hairs, cracks, and foulnesses, which they called faults, in the midst of the large pieces. Pliny tells us (N. H. vol. ii. p. 769. Ed. Har.) that when it was used for engraving, the artist could conceal all these blemishes among the strokes of his work; but when it was to be formed into cups and precious vases, they always chose the acentata, i. e. the pure crystal, which had no flaws nor blemishes.

ACEPHALUS, or Acephalitse, a term that frequently occurs in Ecclesiastical History, as the denomination of various facts: particularly—1. Of those who in the affair of the council of Ephesus, refused to follow either St. Cyril, or John of Antioch. 2. Of certain Chirilans of the fifth century, who at first followed Peter Mongus, but afterwards abandoned him, upon his subscribing the council of Chalcedon, and were thus deprived of their chief; being generally of the opinion of Eutyches, that there was only one nature in Christ. This fact was afterwards divided into three others, who were called Anthropophiltes, Baranophites, and Theranitis; and these again, in the following century occasioned new factions, frequently mentioned by the ancient writers. However, these numerous branches of the Eutychian faction declined gradually in the next century; and the influence of the famous Baranurus chiefly contributed to their extinction by the union which he established among the members of that fact. 3. Of the adherents of Severus of Antioch; and of all in general who refused to admit the council of Chalcedon.

ACEPHALUS, in English History, a name given to the levellers in the reign of Henry I. who were reckoned so poor, that they had not a tenement by which they might acknowledge a superior lord. In this sense the term is used in our ancient law-books, for persons who held nothing in fee, either of king, bishop, baron, or other feudal lord.

ACEPHALUS, or Acephalus, composed of the privative α, and άκεφαλος, head, something that wants a head. Phyll represents the right hand, or acephalous nation. Solinus and Sulpitius mention others in India, near the Ganges, without a head, and with their eyes in their shoulders. Mela, Snider, Stephanius Byzantis, Vopifus, and other writers, furnish similar relations; and latterly modern travellers pretend that they have found people of the same description in America. The origin of this fact has been variously explained. Bartholin understands it metaphorically, affirming that the Acephali had lost their brains, or conducted themselves with less prudence than others. In the opinion Bochart seems to have concurred. See BLEMYES.

Olearius ascribes it to the dregs of such perfons, alleging, that the Samogitians being short of nature, and covering their heads with hoods in winter, formed at a distance, as if they were without heads. Latinius says, that the term Acephali was merely a denomination of people whose heads were depressed below their shoulders. It is, in his epitome of Raleigh's voyage to Guinea, speaks of a people discovered by that traveller in the province of Iviapan, between the lakes of Panama and Caffiga, who had no head or neck; and Hondius, in his map, marked the place, and delineated the figures of these monstros. However, De Laet (Deler. Americ. l. xviii. c. 32.) rejects the story, and relates, that those who dwelt on the banks of Caora, a river that flows out of the lake of Caffiga, had their heads so far sunk between their shoulders, that many believed they had their eyes in their shoulders, and their mouths in their breasts. But though the existence of a nation of Acephali be ill-warranted, naturalists furnish several instances of individuals born without heads, by some latus or aberration of nature. Wepfer gives a catalogue of such acephalous births from Schenkenius, Licius, Paratus, Wolius, Maurice. &c. Acephalus worms, or what are deemed such, are frequent. The limbeus inosul, or joint worm, was long taken to be acephalus. The first who ascribed a head to it was Tulpus, and after him Feb; the former even makes it two heads, or two-headed. See TFXA.

ACEPHALUS, Clerk. See CLERK.

ACEPHALUS is also used in Poetry, for a verse which is defective in the beginning. Some also give the name acephalous to all verses which begin with a short instead of a long syllable.

MACER, in Botany, as called, from ariit, denoting the hardness of the wood, or according to others, from arce ingredium, because the common maple was much employed by ingenious architects in fine works, a genus of the Monocot order and polygama class of plants, and belonging to the natural order of Tribeata. Its generic and essential characters are these: it hath hermaphrodite and male flowers on the same tree; the hermaphrodite calyx is a one-leaved, five-cleft, acute, coloured, flat, and entire at the base, permanently perianth; the corolla has five petals, ovate, broader outward, obtuse, scarcely larger than the calyx, and spreading; the stamens consist of eight or ten filiform short filaments; the anther are simple, and the pollen craneiform; the pistillum has a compressed germ, immersed in a convex, perforated, large receptacle; the style is filiform and daily progressive; the stigmas are two or three, pointed, slender, and reflex; the perianth is composed of as many capsules as stigmas, with one seed in each, coalescent at the base, roundish, compressed, and each terminated by a very large membrane- like wing; the seeds are solitary and roundish; the male flowers are the same with the hermaphrodites, except that they have neither Kern nor style, but only a bisd stigma. On the unfolding of the flower the stigma only appears, and a few days after, the style. The hermaphrodite flowers in the

The text is difficult to read due to the poor quality of the image and the handwriting style. It appears to be a page from a book discussing various historical and natural facts, possibly related to geography, botany, and ancient history. The content is fragmented and requires careful reading to understand fully.
the same umbel are often of two kinds: the lower ones feminine hemiphractis, of which the authors do not burth, but the phyll grows into a fruit; the upper ones maleine hemiphractis, of which the authors scatter their dust, and the phyll does not grow, but fall off. Mr. Martyn in his much improved edition of Miller's Dictionary, emaculates and describes twenty species. In the first edition of Lin- men by Gmelin, the Aec is a genus of the Osmundrea Monoginea class and order, including twenty species. For the properties and uses of the several species, and the method of propagating and cultivating them. See Maple and Sycamore.

ACER. See Bannisteria and Tripteris.

ACEROS, Phalerius, in Natural History, a kind of Pha- lera, found on the Acer, Aesculus, and Juglans.

ACERATOS, acerata, from ex negative and acer, or exacera, to mix, unmixed, uncorrected, is applied sometimes to the humours of the body by Hippocrates. Paulus Aeginita mentions a plaster under this name. See ACERIDES.

ACERB, a compound noun, consisting of four, with the addition of a degree of roughness, and alligancy; such as that of unripe fruit.

ACERIDES, aceris, from ex neg and exacer, or exacera, denote plasters made without wax.

ACERINA, in botany, a name given by Playl, and others of the old naturalists, to the fish now called the Cerma and Aurala Fluvialitis, and in England the Ruff. The acerina of Gmelin's Linnaean system is a species of Perca, whose dorfar fih ha 31 rays and 17 spines. It approaches to the Cerma in many respects, but differs from it in the number of rays and spines of the dorfar fin, and the size of its head, which is longer. It is found in the Euxine sea, and the lake of Moeotis, and the rivers that run into them.

ACERNO, in Geography, a small city of Naples, with a bishop's see, about 12 miles N.E. of Salerno. E. long. 15° 15'. N. lat. 40° 45'.

The city name is also the given name by the Portuguese, on the first discovery of it in the 15th century, to the island now called the Isle of France.

ACEROS, leaf, in botany. See Leaf.

ACEROSUS, chaffy, is an epithet, denoting the browned and coarset fruits of bread, made of flour not separated from the bran.

ACEROSUS, in Natural History, a name given by Vogel in his Mineralogy to a species of Talc.

ACERRA, in Antiquity, a kind of altar, erected among the Romans near the bed of a perfon deceased; on which his friends daily burned incense till the time of his burial. The Chinese have a similar custom. They erect an altar to the deceased in a room hung with mourning; and upon it they place an image of the dead person, to which every one that approaches it bows four times, and offers oblations and perfumes. The original intention of the practice was, without doubt, to overcome any offensive smell that might proceed from the corpse.

By the laws of the 12 tables, the erecting of aceress was prohibited.

The Aceress also signified a little pot, wherein the incense and perfumes were put, to be burnt on the altars of the gods, and before the dead. It appears to have been the same with what was otherwise called thoriumum and pyxie.

We find mention of aceress in the ancient church. The Jews also had their aceress, in our versions rendered cenfers; and the Romans still retain them under the name of incense-pots. In Roman writers, we frequently meet with aceress plena, a full aceress; for understanding which it is to be observed, that people were obliged to offer incense in proportion to their estate and condition; the rich in larger quantities, the poor only a few grains; the former poured out aceress full on the altar; the latter took out two or three bits with their fingers. Pithie. Lex. Ant. Britann. De Formul. l. 1.

ACERRA, in Geography, a walled town of Naples in the Terra di Lavoro, situate on the river Acerr, seven miles N.E. of Naples. It is the residence of a bishop, and has the title of an episcopal. E. long. 14° 30'. N. lat. 40° 55'.

ACERRA, in Ancient Geography, the name of a town on the Clunibus in Campania, now ACERRA. It was a Roman colony, and its inhabitants were reckoned a brave people; "Aceress plus minus, quam virum erat," says Livy, l. xxiii. c. 17. tom. iii. p. 739. Ed. Drakenh. This was also the name of another town, now called La Girdola, or Gherra, which retains some trace of the original name, in the territory and to the S. E. of Ledi, where the river Serio falls into the Adda, to the W. of Cremona, and N. of Pheasantia. It was formerly a place of considerable importance. Its siege by the Romans is particularly described by Polybius, l. ii. p. 121. Ed. Caub.

ACERI, a town of Spain, belonging to the Lacta- tani; probably Cerri.

ACESIe and Acesamn, cities of Macedonia.

ACESCENT, a word used to denote any thing which is turning four or acid, or which is slightly acid. It is only applied properly to denote the spirit of these two meanings. The second may be better expressed by either of the words acidulous, or subacid.

ACESINES, in Ancient Geography, a large and rapid river of India, which Alexander passed in his expedition into that country; and on the bank of which he built a city under the direction of Hephaestion. The kingdom of Porus, whom he vanquished, and which, according to Strabo, contained about 300 cities, lay between the Hydaspes and this river, which, after receiving the former and other considerable rivers, emptied itself into the Indus. Its situation is not precisely known. Arrian says, (De Expedit. Alex. l. v. p. 222. Ed. Gronov.) that, where Alexander passed it, its breadth was 15 fathoms, its course very rapid, and the channel full of large and sharp rocks. It was subject to extraordinary inundations, rising at the summit of the cubits and overflowing the adjacent plains. Thespis (Hist. l. iv. c. 12) speaks of the reeds that grew near this river; and Pliny (H. N. l. xxxiv. c. 12. tom. ii. p. 796) says, that this and the Ganges furnished gems. We read of trees near this river of such magnitude, that 50, some say 400 horsemen might lodge under the spreading branches of one of them; and that they produced long pods of honey, which proved fatal to those who eat it. Strabo, Geog. vol. i. 1041—1022. Some have supposed that the Aces- 
es of Arrian was the river now called Ravee; but major Rennell, in his Memoir, gives good reasons for concluding that the modern Jumna was the Acesines of the ancients.

ACESINUS, a river of Sarmatia, called by Pliny Panticapes.

ACESIUS, in Biography, a bishop of Constantinople, in the reign of Constance, was a disciple of Novatus, who founded a feet whose tenet was, that those who had fallen from the faith in time of perfecution, or who after baptism had committed any mortal sin, were not to be admitted to the communion of the church, even on their exhibiting tokens of sincere repentance. Constance was so much displeased with the severity of this sect, which disencouraged repentance, that, after questioning Acesius concerning it, he said, "then, Acesius, make a ladder for yourself, and go up to heaven alone." This story is related by Sozomen (l. i. c. 10.) and Sozomen (l. i. c. 22); but disputed by Valens.
ACE

Valerius, (Annot. p. 9), and defended by Dalfange, Ann. 325, No. 33. Bayle. Lardner’s Work, vol. iii. p. 224, 

ACESTA, of axono, to cure, signifies curable dilem- 
pers.

ACESTA, in Ancient Geography, a name given by Virgil (Ann. v. v. 71.) to a town called Segesta. 

ACESTI, in Entomoloes, a species of Papilio, found 

in India, with suffused wings, the anterior black, with 

a yellow base and band, the posterior yellow, with brown 

bands under the body.

ACESTIDES, a name given to the chimneys of fur- 

naces where brafs was made; contrived narrow at the top, 

for receiving and collecting the furnes of the melting 

metal, that cadmia might be produced in greater 

quantities.

ACESTIS, a race, a fictitious sort of erythocola, 

made of Cyprian verdigris, the urine of children, and nitre.

ACESTRIDES, female physicians. Midwives were fo 

called among the Greeks.

ACETABULUM, in Antiquity, a little vase or cup, 

used at table for serving up things proper for fiuce, or 

seasoning; much after the manner of our salts and vinegar 

crucets. Hence, Agricola, in his Treatise of Roman 

matters, takes the name to have been formed from acetum, 

vinaegar, supposing that it was principally designed to serve 

vinaegar.

ACETABULUM also denotes a Roman measure, used both 

for liquid and dry things, chiefly in medicine. The ace- 

tabulum contained a cyathus and a half, as is proved by Agri- 

cola, from two varis of Pannus; who, speaking of the 

cyathus, says it weighs ten drachms; and the oxyphalus, 

or acetabulum, fifteen, or about one eighth of a pint.

" Bis quinque hume faciunt drachma, s appellantent tentes; 

Oxyphalus fict, si quinque addantur ad illas;" 

Du Pinet, in his Treatise of weights and measures, pre- 

fixed to his translation of Pliny, makes the acetabulum of 
celc weigh two ounces and two scruples; the acetabulum of 

celc, two ounces, two drachms, a grain, and a third of a 

grain; and the acetabulum of honey, three ounces, three 
drachms, a scruple, and two siliqua.

ACETABULUM, in Anatomy, a name given by Latin 

writers to that cup-like cavity of bones formed for arti- 
culation, which the Greeks called Cotyle or Cotyldon, 

from its sapposed resemblance to a certain small mem- 

brane. When the round end of one bone is lodged in a spheri- 
cal cavity of another, the joint admits of motion in almost every 

possible direction. This species of articulation is tech- 
nically termed Exarthrosis. See J oint. See also Co- 
yledon.

ACETABULUM is also used by Anatomists, in the same 

sense with Cotyledon. It signifies also a glandular sub- 

stance, found in the placenta of fowl animals.

ACETABULUM, in Botany, a species of Pizzia; so 

called from its resemblance to a cup. It is selfile and ex- 
ternally angled, and has ramofo veins.

ACETABULUM is also a species of Lichen; and it is 
a name given to the Cotyledon and Crassula; and with 

the epithets marium minus to the Androsaces, sea Navel- 

wort, or umbilicus marinus. See Tubularia.

ACETARIA. See Sallet.

ACETARII, in the Material Medicin, a kind of pickle, in which Dr. Bates advisces forputic patients to 
dip their vegetables before they eat it. It is thus made. 

1 fol. cochlear, maris. 5 gij. Sacchar. albus. 5 vi fali cochlear. 

5 li bice contund. finim et adda suce, awart. 5 vi. Mo- 

therby’s Dirr. by Wallis.

ACETARY is used for an inner part in the structure of 
certain fruits, thus called from the fowmese of its tale. The 
acctery of a pear is a globular part, lying within the 
calxuley or chokal, and surrounding the core. It is of 
the same fowmese with the parenchyma, or pulp, only that the 
bladders of which it consists are smaller, and rounder than 
those of the parenchyma; from whence, however, it 
seems to be derived. On this account it also sometimes 

called the inner parenchyma. The quince also has an acne-
tary, resembling, though less than, that of a pear.

ACETI Spiritu, spirit of vinegar; made by drenching 
copper-bellings with distilled vinegar, then evaporating it 
till the fumes of the vinegar cannot be felt; the saturation 
and evaporation to be again repeated, till the menstruum be 
ftatified; which being then distilled, the spirit comes over.

Its qualities and uscs are much the fame with those of the 
distilled vincaegar; excepting that it is more powerful.

AC ETIAM, in Law, a clause devised by the officers 
of the King’s Bench, and added to the usual complaint of 

trepidat, in order to maintain the jurisdiction of this court 

over civil injuries without force; of which statute, 2. 13 

Car. II. c. 2, had nearly deprived it. The bill of Middlefex 

having been framed only for actions of trepidat, a defendant 
could not be arrested and held to bail upon it for breaches of 

civil contracts. To remedy this inconvenience the above 

clause was adopted: the bill of Middlefex commanding the 
defendant to be brought in to answer the plaintiff of a plea 
of trepidat, ac etiam, and eft, to a bill of debt; and thus 

the complaint of trepidat gives cognizance to the court, and 

that of debt authorizes the arrest. In imitation of this Lord 

Chief Justice North directed, that in the common pleas, 

besides the usual complaint of breaking the plaintiff’s close, 
a clause of ac etiam might be added to the writ of Capias; 

and this was done in order to save the suitors of his court 

the trouble and expence of filing out special originals.

ACETIC ACID, in Chemifery, Radical vinaegar, Acide 

Aceticus, Vinaegar radical, Vinaegar de Vinaegar. If any 

quantity of crystallized acetum of copper (diluted verdigris) 

can be distilled in a glass retort, with a regulated heat, till at length 

the bottom of the vessel is nearly red hot, the equilibrium of the 

affinity between the component parts of the falt will be 
deestroyed, and several new fubfiances in confquence pro-

duced. The proportion of these on 1000 parts of the falt, 

according to an accurate analysis of Cit. Adet, will be 486 

acetic acid, 318 brown oxvd of copper mixed with charcoal, 

118 hydrogen and carbonic acid gas, and about 84 of the 

acctum of copper, will remain unredcepted. In order to 

be fully aware of what takes place in these changes, it is 

necessary to observe, that the crystallized acetum of copper 

contains hydrogen and oxygen forming the water of crys-

tallization, hydrogen, carbon, and oxygen forming acetic 

acid, and copper, with about 25 per cent. of oxygen. By 

the processes of disfillation, the acetic acid appears to be 

decomposed by the separation of part of its hydrocarbonous 
afe, and at the same time the oxvd of copper is brought to a 

lower state of oxvdation: part of the carbon becomes 

reuelued at the exptence of the copper, and, uniting with the 

hydrogen, forms hydrogenous gas; the remainder of 

the carbon is found in the retort, mixed with the oxvd of 

copper, and polishes the properties of a pyrophous. Thux 

it beaux that acetic acid differs from acetous, in a larger pro-

portion of oxygen to the fafe, which is effected not by an 

addition of oxygen, but by a diminution of the fafe. 

Acetic acid may also be procured by diluting together 

acetum of lead, of foda, potash, or lime, with sulphuric acid; 

the product is however, in this cafe, contaminated by sul-

phurous acid gas; but this may be in part prevented, by 

adding
adding to the materials some black oxyl of manganese. M. Badolier proposes to obtain acetic acid, by distilling equal parts of sulphat of copper, and acetite of lead; the acid thus produced cools only a fourth of that which is formed from acetite of copper. In its general properties, acetic acid is very similar to acetoic acid, yet differing from it in the following particulars.

The active acid qualities of this fluid bring it to a near resemblance with some of the mineral acids; it is corrosive, and intensely acid to the taste; it exhales a pungent almost suffocating odour, and has nothing of the spirituous flavour of distilled vinegar; its specific gravity is 1.0626. With earthly and alkaline bases it unites readily, forming the genuf neutral and earthy acetats, the properties of which have been but very little examined. It diffuses copper, and certain other metals which are not soluble in acetic acid, and it is capable of partly decomposing and uniting with alcohol, forming acetite Ether.

This acid is of some use in the laboratory, and is employed occasionally in medicine, as a stimulant application to the nostrils in fainting fits; for this purpose some acetite of potash is put into a smelling-bottle, and a little sulphuric acid is poured upon it. Annales de Chimie. xxvii. 299. Gren's Chem. xi. 113. Tourrey, Syll. des Connais. Chim. viii. Gren's Chem. iii.


This salt occurs native in the sap, and certain other vegetable juices, and also in the urine of some quadrupeds: it is prepared artificially by adding to pearlash, or carbonat of potash, distilled vinegar, till the liquor contains a slight excess of acid; if the salt is wanted in a solid state, evaporation in a glafs or silver vessel must be had recourse to; when a pellicle appears on the surface, the process should go on at a very gentle temperature, till all the moisture is exhaled; there will remain a white nickeless salt, which must immediately, while warm, be put into a well-closed vial. The salt may also be obtained cheap and pure, by adding sulphat of potash to acetite of lime, evaporating to dryness in a water-bath, and dissolving out the acetite of potash by hot alcohol.

Acetite of potash has a lively penetrating odour, and a sharp taste; but leaving an alkaline imprefion on the palate: it crystallizes in needles and plates, the form of which has not been ascertained.

This salt has a strong affinity for water, deliquating readily in the air: it requires 1.021 parts of this fluid at 50° Fahren. for its solution, and, while dissolving, absorbs calorie; from its hot saturated solution in alcohol, crystals may be obtained by cooling.

Of the alcalies and alkaline earths, barytes alone is capable of decompoding acetite of potash, setting at liberty the alkali, and forming with the acid acetite of barytes.

The sulphuric, nitric, muriatic, fluoric, phosphoric, oxalic, tartaraceous, arfrican, succinic and malic acids, are each capable of separating the acetous acid from its alkaline base; all the easily soluable sulphats, and several other neutral salts effect the fame by double affinity.

Acetite of potash, subjected to dry distillation, yields hydro-carbonous gas, an ammoniacal liquor mixed with empyreumatic oil, sublimed crysallys of carbonat, or acetite of ammonia, and there remains in the retort, charcoal, with potash, partly caustic, and partly carbonatetd. The appearance of ammonia in this process, is a circumstance well worthy of accurate investigation: it was first observed by Beauné, and afterwards by Moreaun, and feems likely to throw much light on one of two very important questions, viz. Is azot a compound? Is ammonia one of the elements of potash? Ammonia consists of azot and hydrogen, but acetite of potash furnishes only oxygen, hydrogen, carbon, and potash; hence, it seems reasonable to suppose, either that these four substances contain the bases of azot, or that ammonia is one of the component parts of potash.

The above salt is applied to no use in the laboratory, or in the arts: it is an article of the Materia Medica, and possesses considerable diuretic qualities.

**Acetite of Soda. Acétite de Soude. Terra foliata mineralia vel crystatallizata.**

To any quantity of carbonated soda add distilled vinegar, leaving the liquor, however, still alkaline; evaporate gently to a pellicle, and by cooling, acetite of soda will be obtained in long fibred prismatic crysallys similar to those of sulphated pha, permanent in the air, soluble at a gente temperature in their water of crystallization, and of a pungent bitterish tafle.

Acetite of soda is easily soluable in water and alcohol, is decomposable with abfraction of the acid or alkaline base by potash, and the fame substances as the preceding falt: when kept long in solution it is converted into carbonat of soda by decompofition of its acid; if subjected to dry distillation it yields hydro-carbonous gas, empyreumatic oil, and acid, and there remains in the retort, charcoal and carbonated foda.

This salt is employed a little in France as a medicine—in this country is made no use of.

**Acetite of Ammonia. Acétite d'Ammoniaque. Ammonia Acetata et Spiritus Mindereri; Lond. et Edin. Pharm.**

This is prepared in the liquid form by adding carbonated ammonia to distilled vinegar till saturation. On account of its great volatility, it is not very eafy to obtain it in the crysallyn form: the following method was successfully practised by M. Dechafon for this purpose: equal parts of chalk and falk-ammoniac were mixed well together, and put into a retort, upon which was poured half their weight of concentrated acetic acid; by a gentle heat a white vapour arose, which concrected in beautiful crysallys in the receiver, and was acetite of ammonia. Another way of preparing this falt is by diffilling equal parts of acetated lead (fugar of lead), and muriated ammonia (falk-ammoniac.)

This fubstance is very deliquefent—has a hot pungent flavour—is decomposed by alkalies, by molt acids, and by double affinity in various ways; it is destroyed by fire, and spontaneously when in solution.

It is only employed in medicine, and is considered as a diaphoretic.

**Acetite of Lime. Acétite de Chaux. Salt of Chalk. Salt of Coral.**

This falt is readily procured, by adding distilled vinegar to chalk, marble, coral, oven-thells, or any other substance that conflits chiefly of calcareous carbonat; the carbonic acid is disengaged with effervescence, and by evaporating the solution to a pellicle, and allowing it to cool gradually, crysallys of acetite of lime are deposited.

Calcereous acetite crystallizates in white flerder silky filaments, permanent in the air; its tafle is bitter, acerb, rather caustic; it is soluble with ease in water, and in small proportion
proporation by alcohol. Barite, and the fixed alkalies decompose it, by union with its acid; the stronger acids do the same, by combining with its earthy base; most of the carbonates and sulphates decompose it by compound affinity: when in solution, it is deprived spontaneously of decomposition of the acid, and deposits carbonat of lime: in dry distillation it yields hydrocarbons, empyreumatic acid and oil, charcoal and calcareous carbonat.

It is still admitted in the foreign pharmacopoeas as a fusidoric and diuretic.


Acet of Barites. Acété de Barît.

This salt is usually prepared by adding carbonat of barite to distilled vinegar, in which case the acid is always in excess: when reduced by evaporation, to the concentration of a syrup, and allowed to cool gradually, it deposits a white opaque granular salt, and the sides of the vessel are covered with silky filaments of the same: a better way of procuring this sublimation, is by boiling for a few minutes the sulphuret of barite in a flight excess of acetic acid, (vide Acet of Strontian) filtering the solution, and setting it to evaporate spontaneously: transparent crystals may thus be obtained in long slender prisms. The salt formed by either of these methods is permanent in the air, and decomposable by most of the mineral acids, the carbonated alkalies, and the phosphoric acids. Its only use is as a reagent, for ascertaining the presence of sulphuric acid in those cases where the muriat or nitrat of barites might affect the results of the analysis.


Acet of Strontian. Acétique de Strontian.

To any quantity of warm distilled vinegar, add gradually sulphuret of strontian, as long as any effervescence is perceived; then boil the liquor for a few minutes and filter; add afterwards, drop by drop, a solution of acetite of lead, (fugar of lead) as long as any precipitate takes place, then sifter the liquor to stand for a few hours, and finally separate it from the dark sediment by filtration. This salt has not as yet been the subject of experiment; its properties are, in all probability, very similar to those of the Acet. Barit. It is not made any use of.

Acet of Magnesia. Acétique de Magnesie.

This salt is prepared by saturating distilled vinegar with carbonated magnesia, then boiling the liquor to separate the remains of carbonic acid, and filtering it, if turbid, to get rid of the excess of carbonated magnesia.

The taste of acetite of magnesia is sweet, with a slight mixture of bitter; by evaporation, it is reduced to a viscid syrupy confusibility, incapable of being crystallized; but by further concentration, and subsequent cooking, becomes solid, and deliquescent in the air: it is totally soluble in spirit of wine, and from the cae with which it is decomposed, the affinity between its elements appears to be extremely weak.

The alkalies, and the rest of the alkaline earths, most of the mineral, vegetable, and animal acids are capable of decomposing this salt by abstraction of its acid or earthy base. It is not made any use of.


Acet of Alumine. Acétique d'Alumine. Aluminous mordant of the calico-printers.

Of all the acetans this is the most important, being absolutely essential to the improved state of the arts of Dyeing and Calico-printing. It is not easy to prepare this salt directly, distilled vinegar, even when concentrated, having no perceptible action on clay; the fresh precipitated and washed earth of alum is indeed soluble by

long digestion in a large excess of acetic acid; but the most economical and effectual way of producing the salt in question, is by means of the double affinities of common alum and fugar of lead. For this purpose, to a blood-warm solution of alum in rain-water, is first of all to be cautiously added a solution of pearlash, or any other sufficiently pure alkali, till the liquor is just upon the point of becoming turbid, in order to saturate the excess of acid in common alum; a cold saturated solution of acetite of lead (fugar of lead) in rain-water is then to be filtered in as long as any precipitation takes place; by standing a few hours, the sulphat of lead entirely subfides, and the supernatant clear liquor, containing acetite of alumine and potash, may be drawn off with a syphon. By washing the sediment with cold water a dilute solution of acetite of alumine is obtained, which may be used instead of water in dissolving alum for the next preparation of aluminous mordant.

Acetite of alumine thus prepared has an acetic strongly fleshy taste: by gradual evaporation and cooling, it assumes the form of small needle-shaped crystals, which are exceedingly deliquescent; by a heat inferior to that of boiling water, the acid is almost wholly driven off. It is decomposed by magnesia, and by all the substances that decompose acetite of magnesia. Its use is almost wholly confined to the dyers and calico-printers.


Acet of Glycine. Acétique de Glycine.

This is an uncrystallizable salt, which by evaporation becomes a gummy semi-fluid confusibility; its taste is sweet and very affreasant, with a flavour of vinegar: its other properties have not been examined into; it is not applied to any use. B. la Grange, ii. 452.

For the metallic acetites, see the respective metals.

ACETIFICATION is used by some Chemists to denote the action or operation, by which vinegar is made. See Acoous Fermentation.

ACETOSA, in Botany. See Rumex and Sorrel.

ACETOSELLA. See Rumex, Oxalis, and wood Sorrel.

ACETOUS ACID—Distilled vinegar—Acétique Acides—Acetum distillatum, Lond. et Edin. Pharm. in Chemistry, is produced from saccharine mucilage, gum mucilage, feacula and all vinous liquors, through the medium of the acetous fermention; also in urine and dunghills during their spontaneous decomposition; from the dry distillation of wood, mucilage, and tartar, from the action of sulphuric acid on many vegetable substances; and from the superxyoxegenation of molt of the other vegetable acids. It is prepared for use, however, in the large way, only by the former of these methods, and is called alegar, if made from malt liquor; but if from any other fermentable liquor, it bears the name of Vinegar.

Common vinegar never contains this acid in a state of purity, but always contaminated by mixture with tartar, mucilage, and carbonaceous matter, which render it very liable to spontaneous decomposition; these substances can only be got rid of by having recourse to distillation, which ought to be performed in glafs or tinmed-copper vessels; the first product of this operation is an odorous, faintly acid liquor containing alcohol; the next is less odorous and more acid, and what comes over towards the end of the operation is a still stronger acid, but with an empyreumatic flavour, and a slight tinge of colour: hence, in distilling four parts of vinegar, the first may be rejected as too much diluted, and the proceeds may be flopped when three-fourths of the liquor is come over. If distilled vinegar is exposed to frost in a broad shallow vessel, and the ice removed as it forms, till
Acetous acid is a transparent colourless fluid, of the specific gravity of 1.0095, nearly as volatile as water, excuding a pungent fragrant odour, and of a lively agreeable acid taste.

When concentrated, it unites cagerly with water, either in the solid or liquid state; absorbing heat in the former case, so as to produce a considerable depression of the thermometer, and giving out heat in the latter case.

Upon fat oils it has little or no action, but camphor and most of the essential oils are readily soluble in it, giving their peculiar odours and increasing the inflammability of the liquid. With the empregnatic oils of wood, tar, &c. it forms the pyrulinoeous and pyrogallic acids.

At a temperature above that of boiling water it decomposes atmospheric air, by abstracting its oxygen, and at the same time giving out flame, and producing carbonic acid and water; the same effect is produced more gradually, by exposing to the air a solution of the earthy or alkaline acetates; thus acetate of lime is converted into carbonat of lime. Acetic acid is however capable of uniting to oxygen without experiencing such a total decomposition. If equal parts of acetate of lime, black oxid of manganese and sulphuric acid are distilled together, a pungent volatile acid called acetic acid will be produced together with hydrocarbonous gas: the same results are obtained from the distillation of crystallized verdigris, and the copper is found in the retort nearly in the metallic state.

Acetous acid unites easily with all the alkalis and alkaline earths, whether pure or carbonated, forming the genus of alkaline acetates, which contains seven species; viz. Acetite of potash, soda, ammonia, lime, barites, fiorit, and magnesia.

It appears to have no action on flex, but combines with the other earths into Acetites of alumine and glyicine.

Excepting iron and zinc, the rest of the metals are difficultly or not at all soluble in acetic acid, their oxides, however, especially if carbonated, are easily so; hence results the large and important genus of metallic acetites.

On vegetable and animal colouring matter this acid appears to have little effect; it poisons indeed the property of reddening syrup of violets, and certain other vegetable blues, in common with all acids.

The component parts of acetic acid are oxygen, hydrogen, and carbon, but their relative proportions have not yet been ascertained. If acetic acid in vapour is passed through a red-hot glass tube, it is decomposed into water, hydrogen, and carboonic acid.

The affinity of this acid is as follows:

<table>
<thead>
<tr>
<th>Degree of attraction</th>
<th>Order of Ective</th>
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<tbody>
<tr>
<td>Barytes - 28</td>
<td>Baryt</td>
</tr>
<tr>
<td>Potash - 26</td>
<td>Strontia</td>
</tr>
<tr>
<td>Soda - 25</td>
<td>Potash</td>
</tr>
<tr>
<td>Lime - 19</td>
<td>Strontia</td>
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<tr>
<td>Ammonia - 20</td>
<td>Soda</td>
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<tr>
<td>Magnesia - 17</td>
<td>Lime</td>
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<tr>
<td>Alumine - 15</td>
<td>Magnesia</td>
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<td>In the smell, way</td>
<td>Metallic oxides</td>
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<tr>
<td>Water</td>
<td>Alumine</td>
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<td>Alcohol</td>
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This acid forms an important article in the Materia Medica; it is also much used in food both as an agreeable condiment, and for the preservation of animal and vegetable substances. Pourcroy, Systeme des Connoisances Chimiques, vol. viii. Encyclopædiæ Methodiciæ, art. Acidæ Acetici. Béatume, Chimie Experimentale. Gren's Chemistry, vol. ii.

Acetous ether. See Ether.

Acetous Fermentation. See Acetous Fermentation.

ACETUM, formed of aero, to breathe, the fume with vinegar; the properties, uses, and preparations of which, see under the article vinegar. There are several medicines in the fops, of which this liquid is the basis; as, Acetum alkalinitatum, made of distilled vinegar, with the addition of some alkaline, or volatile salt.

Acetum Odoratum. See Alcohol.

ACETUM Distillatum. See distilled VINEGAR, and ACETIC Acid.

ACETUM Refinatum, distilled vinegar rectified by means of verdigris. It is made by distilling the common verdigris in fine distilled vinegar, then evaporating the solution, and recovering the verdigris again in form of crystals; and from this, by a proper degree of fire, distilling with a retort an acid spirit, which is the richest acid that can by any art be prepared from vinegar. Boerhaave's Chem. p. 138.

ACETUM Litlsburytes. See Acetite of Lead.

ACETUM Philosbora, a four kind of liquor, made by distilling a little butter of antimony in a great deal of waer. See Spirit of Venus.

ACETUM Portulale. See Vinegar.

ACETUM Propiobolasticum, a preparation made in the following manner. If flor lavand. et rorifm. fol. rut. ab. sith. falvix, menth. a. m. j. Aceti vini cong. j. infund. in B. A. per 8 dies. R buis tint. t. j. campil. 5ii. m. f. This is also called the vinegar of the four thieves; for during the plague at Marseilles, four persons by the use of it, attended many of the sick unhurt; under the colour of their services they robbed the sick and the dead; but one of them being apprehended, saved himself from the gallowes by discovering this remedy. Motherby's Dict. by Wallis.

ACETUM Fisbatum, vinegar of roses, is made of rose buds infued in vinegar forty or fifty days; the roses are then pressed out, and the vinegar preferred. It is chiefly used by way of embrocation on the head and temples in the head-ach. After the like manner are made acetum santunicum, vinegar of elder; acetum anthrhotus, vinegar of rosemary flowers; acetum fiallicum, vinegar of squills. The German dispensatories abound with medicated vinegars, chiefly aimed against pestifilential diseases; but they are not used among us.

ACH, or ACHEN, John Van, in Biography, a painter of history and portrait, was born at Cologne, in 1556, and died, aged 65, in 1621. Having studied and practiscd portrait-painting for some time in his own country, he travelled to Venice, in order to obtain a more extensive knowledge of colouring; and with a view of perfecting his taste, and improving in correctness of design, he settled for some years at Rome. Here he painted a nativity for the church of the Jesuits, and a portrait of Madonna Venula, a celebrated performer on the lute, which is accounted one of his best performances. The best judges allow his colours to be extremely good, his design correct, and that the air of his heads manifest much of the taste of Coreggio. His talents, and polite accomplishments, recommended him to several considerable princes of Europe; and under the patronage of the elector of Bavaria, he painted a grand design of the invention of the cros, which is highly commended for the elegance of the composition, the correctness of the design, the graceful airs of the heads, and the attitudes of the figures. For this, and his portraits of the elector family,
family, he was presented by the elector with a chain and medal of gold, as a peculiar token of his esteem. By the emperor Rudolph he was invited to Prague, where he executed a picture of Venus and Adonis, so much to the emperor's satisfaction, that he was particularly distinguished by him as long as he lived. His character was that of one of the best masters of his time. Tilkington's Dict.

ACHA, or Aca, in Geography, a district of Africa, on the confines of Lybia; formerly rich and populous, but now reduced: the chief produce is dates.

ACHABYTUS, in Ancient Geography, a high mountain in Rhodes, on the top of which stood a temple of Jupiter.

ACHAC, in Ornithology, the name given by the people of the Philippine islands to a bird common there. It is of the size of a common hen; its belly, breast, and neck are of a pale brown, and its back of a dusky reddish colour: its wings are extremely beautiful, being principally of a greenish blue colour; the tail is white, short, and continually in motion; the eyes are black, and the beak is thick and strong, and is of a black colour, and of an obtuse figure; the legs are reddish, and the claws black: when it makes any noise, it seems to utter the word phi phi, very often repeated. It lives principally about the cultivated parts of the islands, and feeds on rice and other vegetables, being properly of the partridge kind.

ACHAEA, in Ancient Geography, a well fortified town of the island of Rhodes, in the district of Ialysus, said to be the first and most ancient of all, and to have been built by the Heliadse, or children of the Sun. Dio. Sicel. l. v. c. 57. tom. i. p. 376. Ed. Weffeling.

ACHA was also a hamlet of Attic Saramia, on the Lycean. The inhabitants were a colony of Orchomenians, and called Achai.

ACHAENS, Achai, in Ancient History, the inhabitants of Achaea Propria, so called from Achaeeus, the son of Xuthus, who having been banished from Teffalafy, settled in Athens, married Creusa, the daughter of Erecheus, and had by her two sons, viz. Achaeus and Ion. Achaeeus, putting himself at the head of a small number of Athenian and Egealan forces, made an expedition into Teffalafy, and recovered his grandfather's kingdom: but having committed the crime of manslaughter, he was soon obliged to fly to Laconia, where he died, and where his posterity remained, under the denomination of Achaeeans, till they were expelled by the Doreae and Heraclides. On this occasion they determined to lay claim to Achaia, and to expel the Ionians. They founded their city on their defeat from the elder Xuthus, and enforced it by collecting a number of troops, and arranging themselves under their brave king Tifasenes, the son of Orelles. The Ionians were overpowered, and driven into Attica; and the Achaeeans took possession of the kingdom, which consisted chiefly of twelve cities. These cities were divided between the four sons of Tifasenes: who, uniting with their cousin, the son of Penthillus, and grandson of Orelles, and jointly reigning over this new Achaaian state for some time, agreed to form an alliance with Pregeenes, and his son Patroes, the overreigns of those Achaeeans, who had been banished out of Lacedaemon, and gave them the sovereignty and territories of a city, which from the lat of thence was called Patrae. The Achaeeans fortified themselves so well in their new settlement, after having expelled the Ionians, that they were able to defend themselves against the Heraclids, and to preserve their laws and liberty, even after all the rest of Peloponnese had been subdued by them, and under a series of kings from Tifasenes to Ogygus; after which they formed themselves into a kind of republic, or democracy.

As their country was poor, without commerce, and almost without industry, its inhabitants enjoyed the liberty and equality afforded them by a wise legislature. Strangers to the desire of conquest, and having little connection with corrupt nations, they never employed fraud and falsehood even against their enemies; and as all their cities had the same laws, and the same offices of magistracy, they formed only one body, and one state: and the harmony that prevailed among them pervaded every class of citizens. The excellence of their constitution, and the probity of their magistrates were so universally allowed, that the Greek cities of Italy addressed themselves to this people to become their arbitrators, and some of them even formed a similar confederacy. The Lacedaemonians and Thucleans, who respectively claimed the victory at Leuctra, refused their dispute, in which their honour was so materially interred, and which demanded the most impartial decision, to the determination of the Achaeeans. Having long retained their liberty, they ceased not to assemble, when the necessity of public deliberation required it, even when the revolt of Greece was threatened with wars and pestilence. Polybius observes, that the Achaeeans so far gained the esteem and confidence of all the Peloponnesians, that their name became common to that whole country. The arms which these people chiefly used were slings, in the use of which they were trained from their infancy, and acquired such dexterity, that they struck any object at which they aimed with surprising exactness. The Achaean government continued in its democratic form from the expulsion of Ogygus or Gyges, the last king of Achaia, to the time of Alexander the Great; after whose death this little republic was involved in all the calamities that are inseparable from discord, and was constrained to submit to the Macedonian yoke. The Achaeeans then changed masters as often as Macedonia changed sovereigns, and were frequently enslaved by tyrants of their own. Unable to bear this servile subjection, in the 15th Olympiad, ante Chr. 285, when Pyrrhus invaded Italy, they revived their ancient union. The first affairs of liberty were the inhabitants of Patrae and Dyna, and they were soon joined by those of Agrium, Dunn, and others. The good order that reigned in this little republic, where liberty and equality, with a sincere zeal for justice and the public welfare, were the fundamental principles of their government, induced several neighbouring cities to join them. The Achaean league thus revived, and extending its influence, was first acceded to by the Sicilians, under the direction of Aratus; they were followed by other states not only of Peloponnese, but by all Greece, except the Lacedaemonians, who first entered into a war against the Achaeeans. By the Achaean league, all the cities subject to it, were governed by the great council, or general assembly of the nation. To this assembly each of them had a right to send a certain number of deputies, who were elected in their respective cities by a plurality of voices. As the supreme and legislative power was lodged in this assembly, it was constantly convened, except on extraordinary occasions, twice a-year; on which occasions they enacted laws, dispensed vacant employments, declared war, made peace, and concluded alliances; and the acts of the assembly were binding on all the confederated cities. The chief magistrates of the league, called by the Greeks strategos, and by the Latin prae tor, was chosen by the majority of votes. At first they had two officers of this kind; but they were soon reduced to one, who presided in the diet, and commanded the army. The prae tor, and other magistrates, continued in the same office two years successively. The former was responsible to the general assembly. The demlurgi were next in power to the praetor, and are therefore designated
by Polybius and Livy, the supreme magistrates of the Achaeans. Their number was ten; they were chosen by the general assembly, and their office was to assist the pre-
tor, who was not allowed to propose any measure to the assembly, which had not been previously approved of by the majority of these demiurgi. In some extraordinary cases they were allowed to summon the general assembly. Such was the fundamental constitution of the Achaeans; and they had also several laws, which were religiously observed as long as the republic continued in a flourishing condition. Their peace and prosperity, however, were interrupted by the jealousy of neighbouring states; and particularly by the Lacedaemonians, who, about the year before Christ 227, commenced a war against them, which, from the name of Cleomenes their king, was called the Cleomenic war. The Achaeans, under the command of Aratus, were successively defeated, and reduced to such a state of distress, as to be under a necessity of engaging Antigonus, king of Macedon, to assist them. In a variety of subsequent contests, the Achaeans behaved with uncommon bravery, and Philopoemen distinguished himself above the rest. Cleo-
menes was defeated; and Antigonus received the thanks of the deputies of each city comprehended under the Achaean league; and, by a decree of the council assembled at Argos, was declared protector of Achaea. The Achaeans afterwards took part with the Messenians against the Etolians; and being overpowered by them, returned to Philip of Macedon, who promised to assist them with the whole force of his kingdom. A confederacy was formed, and war, called from this circumstance the confederate war, was proclaimed against the common enemy. This war having terminated first in a treaty between Philip and the Achaeans on one side, and the Etolians, Lacedaemonians, and Eleans, on the other, and soon after in a peace; the Achaeans returned to their ancient manner of life, rebuilt their cities, temples, and altars, restored their worship, and repaired the various damages which they had sustained during the progress of the war. Philip, however, soon changed his conduct towards the Achaeans, and disturbed that tranquillity which he had been the instrument of establishing. As they refused to concur with him in his purpose of subduing the Messenians, who were members of the Achaean body, he availed their resistance to Aratus, whom he contrived to remove by poison, while he was praetor of the Achaeans for the seventeenth time. When Aratus perceived the danger of his situation, he fled to an intimate friend who attended him. “Behold, my dear Cephalion,” the effect of friend-
ship with kings.” This distinguished magistrate closed his life at Aegium, in the 7th year of his age, and was interred with extraordinary pomp and solemnity at Sicyon, the place of his nativity; and the part of the city in which he was buried, was from that time called Aratium, in honour of his memory. The Achaeans also decreed, that divine honours should be paid him, and appointed a priest for that purpose. The conduct of Philip incensed the Achaeans, and when a favourable opportunity occurred they testified their displeasure. In the mean while they concurred with him in carrying on the war with the Eto-
lians, who had formed an alliance with the Romans. Philo-
poemen gained new honours; and in the year before Christ 216, was appointed, for the first time, commander in chief of the Achaean forces. After a very decisive victory over the Lacedaemonians, the Etolians sued for peace, and obtained it; and the Romans also concluded a treaty of peace and amity with Philip and his allies. This peace was not of long duration. The Romans declared war against Philip, who was joined by the Achaeans and Lacedaemonians. It was not long however before the Achaeans formed an alliance with the Romans, to whom they maintained a steady attachment during the whole course of this war. At the conclusion of it, they were put into possession of Corinth; the Greeks were declared free by the Romans; and the Achaeans amongst others, were delivered from every kind of servitude, and allowed to govern themselves by their own laws. Soon after the departure of the Romans, Nabis, who had been left in possession of Lacedaemon, began to raise insurrec-
tions in the maritime cities, which were garrisoned by the Achaeans; and these hostilities obliged them to have recoue
r to the Romans, and to declare war against Nabis. The whole management of this war was committed to Philopoemen. After a defeat by sea, and a very fortunate escape, this illustrious general obtained a complete vic

tory over Nabis by land; and was thus enabled to unite the powerful city of Lacedaemon to the Achaean commonwealth in the year before Christ 191; by which means the Achaeans eclipsed all the other States of Greece. Philopoemen, with a quiet and satisfied spirit, convicted of the value of his contributions to the state and the state of his country, recommended the application of this money to the purpose of conciliating the discontented, he said, to those who wished his acceptance of it, “it is much more advisable to stop an enemy’s mouth than “a friend’s;” and, for me, I shall always be your friend, and “you shall reap the benefit of my friendship without ex-
“pense.” The Achaean republic, by the addition of Lac
edemon, and the protection of Rome, was now become very formidable. But internal disputes about the place of holding their assemblies, which were transferred by Philopoemen from Aegium to Argos, and the more important quarrel with the Lacedaemonians, and their attempt to secede from the Achaean league, produced an interruption of their tranquillity, and exposed them to new dangers. Lacedaemon, indeed, was reduced by the Achaeans; and Philopoem
en ordered them to demolish their walls, disband their mercenaries, drive out all the slaves whom the tyrants had set at liberty, receive the exiles, and renounce the laws of Lycurgus, and for the future govern themselves only by those of Achaea. At this time the Achaean league was in great repute all over the East, and the friendship of a state so powerful was counted by all the princes of Asia. The ancient alliance with Ptolemy, king of Egypt, and with Seleucus, king of Syria, was renewed. But the Romans became jealous of their increasing power, and interfered with their internal government. The city of Messene withdrew from the Achaean league; and Philopoemen, in his endeav
our to reclaim the rebels, was defeated, taken prisoner, and put to death. When he held the cup of poison in his hand, he enquired whether Lycurgus and the Megalopolitan youth, who had accompanied him as volunteers, had got into a place of safety; and being informed, that they had all made their escape; he replied, “That is enough; I “die content.” Upon his death the glory of Achaea began to decline; so that Philopoemen was not improperly called the last of the Greeks, as Brutus was afterwards styled the last of the Romans. Mellese was afterwards re
ferred to the Achaean league; and the Romans imperiously urging the readmission of the Lacedaemonians, the Achaeans were obliged to submit. In the year before Christ 169, when a war broke out between the Romans, and Perseus king of Macedon, the Achaeans declared for the Romans, and Polybius was sent to the Roman general with the resolution of the Achaean diet. However, several of the Achaeans favoured Perseus; and a thousand of them were summoned to appear before the Roman senate. These perfons were kept
kept close prisoners at Rome; and, notwithstanding repeated remonstrances, their trial was delayed. After a confinement of 17 years, 300 of them, who had survived the hardships which they experienced, were sent home. This treatment alienated the minds of the Achaeans from the Romans; and, by degrees, brought on an open war, which ended in the reduction of Achaea, and the dissolution of the Achæan league. Commissioners were sent from Rome, in the year before Chr. 147, who announced the orders of the Roman senate and people, that all the cities which were not formerly of the Achæan league, viz. Corinth, Lacedæmon, Argos, Heraclæa, and Orchomenus, should be sepa-

rated from the general alliance, and governed by their own laws, independently of the confederacy. The Achæan deputes, assembled at Corinth, as soon as they heard these words, left the assembly before Aurelius had finished his speech, and when they informed the people of the Roman decree, the whole city was in an uproar; and both the commissioners and Lacedæmonians were treated with the utmost outrage and violence. The senate was incensed, but sent out new commissioners with proposals of accommodation. But these ambassadors having been treated with disrespect, returned with their complaints to the senate. Four other Romans were deputed by Metellus to negotiate with the Achæans; but their endeavours were ineffectual. The consequence of these unsuccessful efforts was an open rupture, and the declaration of war with Lacedæmon and the Romans. Metellus, without waiting for the orders of the senate, marched towards Achaea; and the Achæans, joined by the cities of Thebes and Chalcis, prepared to receive him. The greater number of them were struck with terror, and sent new deputies to Metellus to treat of peace. But the Achæans, now governed by magistrates, who had no other rule of conduct but their passions, and no other talent for war besides a savage ferocity, and a blind delight of revenge, seemed to be devoted to destruction. On this occasion, after Metellus had in vain endeavoured to settle the affairs of Achæa, Mummius arrived in Greece, and defeated the Achæans; and in the year before Chr. 146, plundered Corinth of its rich spoils, and then reduced it to ashes; and under the ruins of this city the Achæan league seemed to be buried. Ten commissioners were sent from Rome, to regulate the affairs of Greece in general, and of Achæa in particular, in conjunction with the confederacy. These abolished popular government in all the cities, and established magistrates, who were to govern each city according to their respective laws, under the superintendency of a Roman praetor. Thus the Achæan league was dissolved, and Greece reduced to a Roman province, called the province of Achæa; because, at the taking of Corinth, the Achæans were the most powerful people of Greece. The whole nation paid an annual tribute to Rome; and the praetor who was sent thither every year, was charged with the care of collecting it. From this time Achæa was governed like the other Roman provinces till the reign of Nero, who reformed the whole of Greece to the enjoyment of its ancient liberties; but it was afterwards reduced by Vespasian to its former state of subjection. Under Nerva, some shadow of liberty was restored; but it was still governed by a Roman praetor. In this condition the Achæans remained till the time of Constantine the Great, who, in his new partition of the Roman provinces, subjected Achæa to the prefect of Illyricum. Upon the division of the empire, Achæa, with the rest of Greece, fell to the emperors of the East. Under Arcadius and Honorius, all these provinces suffered greatly by the incursions of the Goths, who, under their king Abaric, laid waste the whole country, and reduced the mag-
nificent structures that were then remaining to heaps of ruins. In the reign of the emperor Emanuel, in the 12th century, Peloponæus was divided into seven principalities, and he bellowed them on his seven sons. In the 13th century, when Constantine was taken by the western princes, the maritime cities of Peloponæus, with most of the islands, were allotted to the Venetians. In the 15th century, Constantine Dragos, despot of Morea, being raised to the imperial throne, divided that province between his two sons, bellowing Sparta on one of them, and Corinth on the other. Mahomet II., taking advantage of their divisions, stripped them both of their dominion. The Mahometans having gained possession of Morea, drove the Venetians from the cities which they possessed on the coast, and made themselves masters of that fruitful province, till they were expelled by the Venetians in 1687. By the treaty of Carlowitz, in 1699, the barbarians yielded it to the republic of Venice; but retook it in 1715; and in their hands it still continues, being governed by a Sangiac, under the begler-beg of Greece, who resides at Modon. On the subject of this article, see Polybius Hist. and Excerpt. leg. Index, verb. Achæi, Ed. Cæs. Pauflaniez Graec. Defer. p. 521, &c. 558, &c. Ed. Kühni. Strabo Geogr. tom. ii. Index verb. Acheorum, Achæi and Achæia, Ed. Cæs. Plut. in Arat. Com. et Philop. Livy. to. iv. et v. ubi Index, &c. verb. Achæi. Ed. Drakenb. Jutin. 1. xxxiv. ch. i. Sueton in Neron. et Vespas. to. ii. Ed. Pité. Plin. l. viii. Ep. 24. Herodot. p. 71. Ed. Weißel. Anc. U. H. vol. vii. p. 42—155. Anabathl's Travels, &c. vol. iii. p. 401—406. See also an elaborate discourse on the origin, nature, and object, &c. of the Achæan league, compared with the Bellic and Helvetic confederacies, intitled, Discours qui a remporté le Prix de l'Académie Royale des In Ripetations et Belle Leètres, de Paris, in 1758, &c. by M. J. de Meerma, 4ro. Hague, 1784,—and an abstract of it in the Monthly Review, vol. lxi. p. 531, &c.

ACHÆMENES, in Ancient History, was grandfather of Cambyses, and great-grandfather of Cyrus the First, king of Persia. According to Herodotus, p. 515,—and according to the same historian, p. 109. 548. there was a son of Darius I., king of Persia, and brother of Xerxes, who was of the same name. This Achæmenes governed Egypt, after Xerxes had restored them to their allegiance, and he commanded the Egyptian fleet in the celebrated expedition which proved so fatal to all Greece. Having been sent into Egypt to suppress a rebellion, which occurred after the death of Xerxes, he was vanquished and slain by Inar, chief of the rebels. The term Achæmenius is very common Persian epithet: Stephanus Byzantius says, that Achæmenia is a part of Persia, so called from Achæmenes, son of Ages. According to Herodotus, p. 65, the Achæmenidae were certain tribes from which the Persian kings sprung; and Strabo (vol. ii. p. 1059.) reckons the Achæmenides as one of the three principal nations of Persia. Horace (l. 2. od. 12.) mentions an Achæmenes who was very rich; and who is supposed, by his commentators, to have been one of the Persian monarchs.

ACHÆMENIA, in Ancient Geography, a part of Persia, according to Stephanus Byzantius and Strabo, so called from its first king ACHÆMENES. It is sometimes used to signify Persia in general, particularly by Herodotus, who represents Cambyses, in an oration, calling his people Achæmenides.

ACHÆMENIS, in Botany, a species of the Tey-riium.

ACHÆORUM portus, in Ancient Geography, a harbour of the Chersonesus Taurica, on the Euxine; and another mentioned
ACHÆUS, the son of Andromachus, whose sister was the wife of Seleucus Ceraunus, was offered the crown of Syria, as successor to Seleucus, but declined in favour of Antiochus, the brother of the deceased king, who was afterwards summanded the Great. All the provinces of Asia Minor were committed to the charge of Achæus. In this station he revolted from Attalus, King of Pergamum, all the countries in Asia which that prince had seized, and annexed them to the crown of Syria; when things were formed against him, he feized the crown which he had before refused, and was crowned at Laodicea, in Phrygia, assuming ever afterwards the regal title in all letters to the cities of Asia, and obliging them to give it him in all their addresses. Antiochus having succeeded in several enterprises, directed his attention towards carrying on the war in Asia Minor against Achæus; who being shut up in the caille of Sardis, was delivered to Antiochus, after he had taken the city. This prince was moved with compassion towards a person to whom he had once owed his crown; but motives of state prevailing over his natural tendernes, he ordered him to be put to death in the manner related by Polybius, l. viii. p. 528. Ed. Cantrab. For an account of Achæus the son of Xuthus; see Achæans.

ACHAIA, in Ancient Geography, was used in three different senses. In the earlier ages it comprehended all the provinces of that great continent, which the geographers, strictly speaking, call Greece. It was afterwards confined to that narrow district of Peloponnesus, which was possessed by the Achæans in the more limited sense of the appellation, and which extended westward along the bay of Corinth, that lay to the north, and was bounded on the west by the Ionian sea, on the south by Elis and Arcadia, and on the east by Sicotia. This was called Achailia proper, and it is now denominated România alta, and forms a part of Chersonesus or Chersonese in the Morea. Its metropolis, according to lonic, was Patra, and according to others Aigina. In the Roman times the name of Achæa comprised not only all Peloponnesus, but four other cities beyond the Ilissus as had entered into the Achæan league; upon the dissolution of which Greece was, by a decree of the Roman senate, divided into two provinces, viz. that of Macedonia, containing also Thessaly, and that of Achæa which included all the other states of Greece.

ACHALAE: Prefbyter, Prefectors of Achæa, in Ecclesiological History, those who were present at the martyrdom of St. Andrew the apostle, A. D. 59; and who are said to have written an epistle relating to it. Bellarmine, and other Roman writers allow it to be genuine; but Dupin, (Hist. of Eccl. Writers, vol. i. p. 17) and many others reject it.

ACHAIUS, in British History, the son of Ethwim, who was raised to the crown of Scotland, A. D. 788. At the desire of the emperor Charlemagne, an alliance with him against the English, whose pirates infested the seas and interrupted commerce, was concluded in France upon conditions so advantageous to the Scots, that Achaimus, to perpetuate the memory of it, added to the arms of Scotland a double field fowed with violets. He died in 819.

ACHALCTLI, or, as Buffon has contracted the name, Alaltli, in Ornithology, the Alcelo torquata of Linnaeus and Gmelin, the cinereus king-fisher of Lake Man, and the Colored-bird of Nieremberg, is one of the largest king-fishers, being near 16 inches long. Its specific characters are, that it is short-tailed, half-crested, hoary-bluish, with a white collar, and its wings and tail spotted with white. The upper part of the body is bluish-grey, and this colour is variegated on the wings, with white fringes in falkoons at the points of the quills, the largest of which are blackish, and intermixed with broad white indentings; those of the tail are marked with broad stripes of white; the under-part of the body is chestnut-rufous, dilated towards the breast, and there shaded or mailed with grey; the throat is white, which colour forms an entire circuit on the neck; the whole head and nape of the neck are of the same bluish grey colour with the back. The back is sharp, and about three fingers breadth long; it is red, with a mixture of blackish brown at the base; and the feet are red. This bird is migratory; and at a certain time of the year visits the northern provinces of Mexico; and is also found in Martinique and the Antilles. It feeds on fish, whence its name Acalatli, i. e. devourer of fish.

ACHAM, in Geography, a country in Asia, bounded on the N. by Bontan, on the E. by China, on the S. by Burmah, and on the W. by Hindostan. It is very little known to the Europeans.

ACHAMEI, in Ancient Geography, the name of a people who inhabited that part of Libya interior, which is near the mountain Arvaltes, and on the confines of the equinoctial line.

ACHAMELLA, in Botany. See Acherra.

ACHAN, in Scripture History, the son of Carmi, of the tribe of Judah; who, when Jericho was taken, concealed 200 shekels of silver, a Babylonish garment, and a wedge of gold, in direct violation of a divine prohibition. After the Israelites had been repulsed at Ai, they call lots in order to discover the offender, who had been accesory to this calamity; and when Achain was found to be the guilty person, he and his children were floned to death, and afterwards burned. Joshus, chap. vii. Some have supposed, that Achain alone was put to death, and understand the word " and they floned them," (v. 25) as it is in the Hebrew, and not him, as in our translation, of Achain and his cattle. Grotius in Loc. Others suppose, that Achain's children were accomplices in his crime. St. Aulín vindicates the justice of this act, on the ground of God's having a right to refuse the life he has given, when and how he pleases. Some have alleged, that the severity of this punishment was necessary to keep the people in awe, and to oblige them to a perfect submission to the divine commands.

ACHANDES, in Ethnology, a name given by some to the Remora.

ACHANE, Achaia, an ancient Persian corn-measure, containing 35 Attic mediumi.

ACHAII. See Achem.

ACHANIA, in Botany, from Achaia, not hene, because the corolla does not open; a genus of the mexicifolia perandra class, and the natural order of colourentis. The characters are, that the calyx has a double perianthium, the outer having many leaves, and the leaflets being linear, permanent, and slightly constricted at the base; the corolla is subulate and convoluted; and the petals are five, oblong-oblong, erect, with a lobe at the base of each side, involving the column of flamen: the flammen are numerous flaments, calefcing into a wizhelt tube longer than the corolla, free at top, and capillary; the anthers are oblong; the pistillum has a subglobulig ermen; the style is filiform, of the same length with the tube of the flammen; ten-left at top, the segments spreading, the figmas capitata; the pericarpium is a subglobulig, flathy, five-celled berry; the seeds are lithary, on one side convex, and angular on the other. There are three species, viz. the A. malacarifus, scarlet achaia, or
or bantard hibiscus, which is a native of Mexico and Jamaica, cultivated here in 1714 by the dutchmen of Beaufort, and flowering through the greatest part of the year; the *Mollis*, or woolly achania, a native of South America and the West India Islands, found in Jamaica by Houfton in 1720, and introduced in 1782, by B. Bewick, Esq. and flowering in August and September; and the *Pilosus*, or hairy achania, a native of Jamaica, introduced in 1780 by Mr. G. Alexander, and flowering in November. Achania is generally propagated by cuttings, which are planted in pots of light earth, plunged into a gentle hot-bed, and kept from the air till they take root, when they should be gradually introduced to the open air. They must be preferred in winter in a moderate stove; and kept warm in summer, they will flower, and sometimes ripen fruit. The achania, in the Linnean system by Gmelin, is made a species of Malva-viapus. Martyn's Mill. Dict.

Achao, in the *Materia Medica* of the ancients, the name of an herb much celebrated in many distempers; which some have supposed to be what is called in Egypt Prech, an herb nearly resembling chamomile, but lower, and with broader leaves, approaching to those of feverfew, and of a faint, but not disagreeable smell. Avicenna seems, however, to have meant a different plant by this name, and probably the herb which we call Marum. Proper. Alpin.

Acharaca, in *Ancient Geography*, a town of Lydia, situate between Tralles and Nyfa; in which were the temple of Pluto and June, and the cave Charon, where the patients slept in order to obtain a cure, either by the suggestions of their own minds, or by those of others, who, during their sleep, were directed what effectual remedies to prescribe. Strabo *Geog.* vol. ii. p. 966-1.

Achariston, from α, without, and χαρία, value, a denomination under which Galen describes some compositions of singular efficacy, which cured so quickly, that they were undervalued.

Acharna, in *Ancient Geography*, a town of Attica, near Eretria; the largest of those towns, according to Thucydides, (l. ii. c. 19. p. 111. Ed. Duker) which were called *Fraen*, or villages. Pindar (Nem. Od. ii. v. 25. p. 323. Ed. West and Wellsted) says, it was famous for brave men; and it was particularly celebrated as the birth-place of Themistocles. Corn. Nep. c. i.

Acharon, in *Entomology*, a species of *Sphinh*, of an azure colour, with brown wings, and red anus; found in New Holland.

Achasa, in *Ancient Geography*, a country of Scythia beyond the mountain Imaus.

Achat, in our Low French, signifies a contract, or bargain; especially in the way of purchase. Purveyors were by act of parliament 34 Edw. III. ordained to be thenceforth called Achators.

Achates, in *Biography*, the companion and faithful friend of Uneas, who is celebrated by Virgil, and so called, says Servius, either in reference to some properties of the achates or agate mentioned by Pliny, or from αχατης, the concern he felt on account of Uneas. Virgil, by Malv. v. i. l. 326. n. 178.

Achates, in *Entomology*, a species of *Papilio*, with black wings, red at their base, and the hinder marked with a white spot; found in China.

Achates, in *Ancient Geography*, a river of Sicily, now the Drillo, which runs from N. to S. near, and almost parallel to, the Gela. Silius records it, (l. xiv. v. 229) "Et perlacentem splendenti gurgite Achaten," and Pliny, (H. N. i. xxxvii. c. 10. p. 576, Ed. Hard.) says, that the achates or agate was first found on the banks of this river.

Bochart. (Geog. Sacr. v. i. c. 29. Oper. tom. i. 549. Ed. Villem.) supposes, that the name of the flower and river is derived from the Punic *Typt*, varied or spotted, referring to the varied colours of the stone.

Achates, in *Natural History*, the stone called *Agat*. Achatis, in *Natural History*, a species of *Bulla*, in the class of terebriform worms; with an ovated shell, funguisous, obtunded, aperture, and apex, and a truncated columnella. It has varieties; such as the white with yellow apex; the yellow or white with funguisous columnella; and the white with close bands, and a pale columnella. It is found in the American ocean. This is also the name of the *Cypara amethystea* in the Linnean system, which is found in Madagascar.

Ach Bobba, in *Ornithology*, a bird mentioned by Dr. Shaw (Travels, v. ii. p. 449), of which numerous flocks appear near the city of Cairo in Egypt, and feed upon the carrion and filth that are thrown out of the city. The name, in the Turkish language, signifies white father, and is given to this bird partly from the reverence they have for it, and partly from the colour of its plumage. It is about the size of a large capon. This bird is called by Belon the Egyptian Sacre, and it is a variety of the *Alpin Vultur*, or *Vultur peregrinans* of Linnaeus. It is of a red tawny ash-colour, with dusky spots, and their feet are naked. Belon conceives that it is the Hierax, or Egyptian hawk of Herodotus, which, like the Ibis, was held in veneration by the ancient Egyptians, because both of them eat and destroy the serpents and other noxious reptiles, which infest Egypt. Buffon suggests that it may be the fame with the *Carion Vultur*.

Ache, or Ach, a painful ailment in any part of the body. Aches may be either scabrous, or rheumatic, owing to violent pains, or the like. See Headach.

Ache, in old authors, a name given to the plant called *Apium palustre*, or paludapinus, in English, Smallage.

Acheen, Ache, or Ach, in *Geography*, a kingdom of *Sumatra*, lying on the N. W. part of the island. Its capital, the name of which, is situated on a river which empties itself near the N. W. point, or Achener-head, about two miles from the mouth. N. lat. 3° 22'. E. long. 95° 40'. The town lies in a valley, formed like an amphitheatre by two lofty ranges of hills. The river discharges itself into the sea by several channels, and is very shallow at the bar. The houses, of which there are about 800, are built of bamboo, and rough timber, and they are raised by means of pillars to some height above the ground, in order to preserve them from inundation and damps in the rainy season. In the centre of the town, which has neither wall nor moat, is the king's palace, which is a large though rude edifice, and encompassed by a deep moat and strong walls. Though this place is no longer the mart of eastern commodities, it carries on a considerable trade with the nations of that part of the coast of Holland called *Telingo*; by whom they are supplied with the cotton goods of the country, and who receive in return gold-dust, Japan wood, betel-nuts, pepper, sulphur, camphor, and benzoin. The European traders supply the country with Bengal opium, iron, and other articles of merchandise. The inhabitants manufacture a considerable quantity of a thick kind of cotton-cloth, and of stuff for the short drivers worn by the Malays and Achenees. They also weave pieces of silk, of a particular form, for the Malayan drefs. Acheen is deemed, comparatively, healthy, being less subject to complaints arising from woods and swamps than other parts of the island; and the soil is light and fertile, producing rice and cotton, and a variety of excellent fruits. The raw silk of the country is of inferior quality.
quality. The mountains near Acheen produce a small quantity of gold-dust; but the greatest part is brought from the southern parts of Nalacoo and Sooloo. The fulphur is collected from a volcano in the neighbourhoood, and, besides supplying their own manufacture of gun-powder, admits of a large exportation. The inhabitants are, with respect to their persons, taller, robust, and of a darker complexion than the other Sumatrans; and they are supposed to be a mixture of Buttas, Malays, and Moors from the coast of India. In their dispositions and habits, they are more penetrative and fagacious, more active and industrious, and possefs a greater stock of knowledge than their neighbours. With regard to religion, they are Mahometans; and their mosques and priests are numerous; and the forms and ceremonies of their worship are strictly observed. They are expert and bold navigators, and employ a considerable number of vessels for different purposes. Being defitute of convenient coins, they commonly make their payments in gold-dust, which they carry with them in pieces of bladder; and they use grain or feeds for weights. The government is an hereditary monarchy, and the king has usually a guard of 100 feapows about his person. The grand council of the nation consists of the king, four other officers, eight of a lower degree, who fit on his right hand, and fifteen who sit on his left. The king’s pleasure is communicated by means of a woman, who sits at his feet, to an eunuch near her, and by him to an officer, who conveys it to the whole assembly. Merchants and other strangers introduce themselves by presents to the king and his officers. Whenever an European enters the royal palace, he is obliged to take off his shoes. The royal throne was formerly made of ivory, and tortoise-shell; and, when queens governed, a curtain of gauze was hung before it. After the stranger has been introduced, he is entertained in a separate building with the delicacies of the country, and returns in the evening, attended by a prodigious number of lights. On high days the king goes in great state, mounted on an elephant richly caparisoned, to the great mosque; and he is preceded by officers armed very much after the European manner.

The country under the immediate jurisdiclion of Acheen is divided into three districts; each of which is governed by a Panglemo, or subordinate officer. Crimes are severely punished, and without any commutation by the Achenese laws. Petty theft incurs the suffocation of the criminal from a tree, with a heavy weight tied to his feet, or the cutting off a finger, hand, or leg, according to the nature of the offence. Highway robbery, and house-breaking are punished by drowning, and exposing the body on a stake for some days. If an imam or priest be robbed, the criminal is burned alive. The adulterer is delivered up to the friends and relations of the injured husband, who form a circle round him; and, if he be not so fortunate as to make his escape, he is presently cut to pieces, and buried without being admitted into any house, or the performance of any funeral rites. Notwithstanding these discouragements to iniquity, the Achenese are represented by travellers as one of the most dishonest and flagitious nations of the coast.

For other particulars, we must refer to Mr. Marston’s account of Sumatra. Acheen was visited by the Portuguese in 1509, but they could form no establishment in the country. Captain Lancaster was very differently received in 1602. He made a treaty in behalf of the English East India company, with the king of Acheen, and obtained for the company particular privileges. They had for many years a factory at Acheen. See Sumatra.

ACHEIROPPOIETA, formed of a priv. xup, hand, and

ACH, to make, and denoting made without hands, an epithet given to an image of Christ in the Lateran church at Rome, which is said to have been designed and sketched by Luke, and finished by angels.

ACHELIOUS, in Entomology, a species of Phalana, with ferruginous wings, and the anterior marked with a white point and fachea; it is large, and found in America.

ACHELIOUS, in Mythology, is said to have wrestled with Hercules for Delania, the daughter of King Oeneus, and, affirming the shape of a bull, Hercules is said to have broken off one of his horns, which was restored on condition of his giving the victor the horn of Amalthea, the same with the Cornucopia, or horn of plenty, which Hercules filled with various fruits, and consecrated to Jupiter. For the meaning of the fable, see the next article.

ACHELIOUS, in Hydrography, a river of Acanania, which rises in mount Pindus, and, dividing into three branches, flows from N. to S. into the Sinus Corinthiacus. It was formerly called Thes in account of its impetuosity, and by Homer. (Iliad, l. xxi. v. 194.) the king of rivers. The epithet Acheilus is used by Virgil, (l. i. v. 9.) for gurgus, the reason of which, according to Servius (in loc.) is, that Acheilus, on account of the antiquity of this river, was used by the ancients as a denomination of water in general. The ancient poets called rivers Tauriformer, either from the bellowing of their waters, or from their plunging the earth in the course. The fable in the preceding article is explained by some in this manner. Acheilus being a rapid and winding river, roared like a bull, and often overflowed its banks; but Hercules, by dividing it into two channels, and relining its inundations by mounds and ditches, broke off one of the bull’s horns, and reflored plenty to the country. See Strabo (Geog. l. x. vol. 2. p. 703—4. Ed. Amil.) There are other rivers of this name in Achaia Propria, Thebais, and Asia Minor.

ACHEM, in Geography, a country of Africa, in that part denominated the Slave-coast. The extent of this country is unknown: the negroes assert that it reaches to the coast of Barbary. It is divided into great and little Achem, which were formerly united under one monarchy, but are now two separate republics: little Achem is denominated Acheni, or Akanii. There is a town of the same name, sometimes called Armeni. N. lat. 8. 30. E. long. 0. 30. Most of the gold exported from this country is brought to the European forts at Acre. The negroes of both these districts are of an indolent and haughty character, valuing themselves on the superiority they once maintained in respect of their neighbours; but civil divisions have of late rendered them less formidable.

ACHEMENIS, in Botany, an herb mentioned by Pliny (H. N. l. xxi. c. 4. tom. ii. p. 392.) suppos’d by the ancients to have the property of exciting terror in their armies, and putting them to flight. The fable may probably denote, that soldiers could not prosper in war with plants in their hands.

ACHEMEN, in Entomology, a species of Sphynx, yellow, with glass-coloured wings, black at their apex, and the fore wings yellow at their base; found in Jamaica.

ACHERI, Luke d’, in Biography, a learned Benedictine of the congregation of St. Maur, was born at St. Quintin in Picardy, in 1609, and made himself famous by printing several works, that exalted in M. S. with prefaces and notes; such as Barnabas’s Epistle, the works of Archbishop Lanfranc, the Life and Writings of Guibert Abbot of Nogent, and a collection of curious pieces, begun in 1655, and concluded in 1677, under the title of Speculum, i. e. Gleanings, in 13 volumes 4to. In 1723, it was reprinted by M. de
ACHIL, in Antiquity, a name by which Iliad has distinguished the admired family of the GIAIUS; the characters of which are, that they have two heads situated above the extremity of the abdomen, and three antennae; and that the tars are continued of three articulation. Twenty-eight species are enumerated in the new edition of the Systema Nature. The name of this family food upon the roots of plants. See Coccus.

ACHILUS, or ACHILIS, in Natural History, a town of the province of ANGELOS or TASCALA in Mexico.

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peaceance through the year, a native of the Levant, and cultivated at Chelsea in 1712. All the preceding species have yellow corollas: the corollas of the following are white in the ray:—9. the *mecoleophylus*, or fowice-leaved M. whose leaves resemble those of the common fowice-root, and are of the size of those of the tansy, the scales of the calyx edged with black, the plant, and especially the flowers, frangul like fowice-root; a native of the Alps, hardy, and thriving in any soil, and deferving a place in gardens; flowering in July and Augufit, and cultivated by Mr. Miller in 1759.—10. the *lepifus*, with a flem red at bottom, and terminating in a handfome umbel of white flowers, and the fowets in the my elegantly cut, frequent in Siberia;—11. the flowered, or flerry-leaved M. the ABLF L 1111 X11, fubf, under h e 11, named after the Alps of Switzerland, Austria, Pannonia, and Carithía, cultivated in 1683 by Mr. J. Sutherland:—12. the *ferina*, or fowice-root M. growing wild in all the temperate parts of Europe, found in Britain not uncommonly in meadows, by the fides of ditches, on the banks of cornfields, in moift woods, and fandy places; the fowets are put into fallets, and the roots, being hot and biting, are used for the toothach, whence the plant has been called bafrd pelitory; and, on account of the form of the leaf, goofe-tongue; the powder of the dried leaves used as faufu provokes freezing, whence the name; in Siberia a decoction of the whole herb is said to be successfully used in internal hemorrhages: of this plant there is a variety with double flowers called *lachafon's futtons*; it flowers in July and Augufit, and makes a tolerable appearance:—13. the *ajina*, or Alpine M. resembling the laft, and by fome fuppofed to be a variety of it; a native of Switzerland, Savoy, and Siberia, very hardy, cultivated here by Mr. Miller in 1731:—14. the *ferata*, or mouch-leafed M. appearing like *parvina*, flowering in Augufit and September, and introduced, with the next species, in 1754, by Mr. J. Grefler:—15. the *cififia*, or fender-branched M. a native of the East, flowering here in July and Augufit:—16. the *trata*, or camomile-leaved or black M. found on the mountains of Switzerland, the Valais, and Austria, and introduced here in 1774 by Drs. Pitcairn and Fothergill:—17. the *macelata*, mark M. or Swifs genipo, an excellent fowice-root, but injurious in the plentiful attended with high fever, promising to be serviceable in disorders arising from a deficiency of the solids, and yielding a grateful food to cattle; it grows wild on the high Alps, in Savoy, Piedmont, and Austria, and was introduced in 1775 by Drs. Pitcairn and Fothergill:—18. the *vina*, or dwarf M. found on the high Alps of Switzerland, the Valais, and Savoy, very hardy, thrives in any foil, loves an open expofure, and deferves a place in gardens:—19. the *maja*, great M. or the *Yarraw*, found in Italy, and cultivated here in 1683 by Mr. J. Sutherland:—20. the *milofiathum*, common M. or *Yarraw*, abundant in pastures and by the fides of roads, flowering from June to September; used instead of hops, by the inhabitants of Da*Charla*, in their ale, in order to procure affaunting quality; recommended by Anderfon in his Essays on Aromatic, for cultivation, though thought to be a noxious weed in pastures: the bruited herb tea is recommended by Linneus as an excellent vulnerary and hyperic, and by foreign physicians in hemorrhages, and thought by Dr. Hill to be remarkably efteemed in dysenteries, when administered in the form of a strong decoction; an ointment is made of it for the piles, and for the scab in sheep; and an effectual oil is extracted from the flowers; but it is not used in the present practice:—21. the *labina*, native of Italy, Germany, Switzerland, Narbone, and Turin, and cultivated in 1640 by Mr. J. Parkinson:—22. the *olivaria*, or *olentia*, thought by Gerard and Haller to be a variety of the former, and a native of the fame place:—23. the *Cretica*, or Cretan M. a native of Cretæ:—24. *Ivanoffia*, rough-headed M. introduced in 1775 by Mr. Tholus:—25. the *herbatae*, esteemed among the peafants of the Alps as a fowice-root, or horf-roots; in the Alps, and cultivated in 1759 by Drs. Pittaion and Fothergill:—26. the *hildan*, marjoram-fceded M. having a fcanty fleem, as well as the leaf, like mandlin:—27. the *tanacetolia*, tansy-leaved M. a native of the Grifons, and nut uncommon in the pastures and valeys of the Alps. In the latfe edition of Linneus, Gmelin enumerates 32 species, omitting the *hispantes*, and adding the *labata* and the *loqto*.

All the species of the *Achillea* may be propagated by parting the roots either in spring or autumn. The feeds of many of them may be fown in March or April, and they may be transplanted at Michaelmas. They will flower the following summer. As they are mobly hardy, they will require little care in the cultivation. Miller's Diet. by Martyn.

*Achillea involora*. See *Athanasia*.

*Achillea montana*. See *Senecio*.

*Achillea tanacetolia* of Miller. See *Chrysanthemum*.

*Achillea*, in the *Materi Medica* of the ancients, a name given to the gum, which we at this time know by that of the Sanguis draconis, or *Draco's blood*. The ancient Greeks called this eannabai; and the ufe of the word for the mineral which we now call eannabai, was only because it had the fame red colour with this gum. Avicenna, treating of the *Achillea* says, it is otherwise called Sanguis draconis, and describes it as a real gum, universally known in his time.

*Achillea*, in *Ancient Geography*. See *Leuce*.

*Achileis*, or *Achileis*, in *Literary History*, a celebrated poem of Statius, of the epic kind, in which he propofed to deliver the whole life and actions of Achilles. It only comprehends his infancy; the poet being prevented from proceeding by death. It is a point controverted among critics, whether the whole life of a hero, as of Achilles, be a proper subject of an epic poem?

*Achileon*, in *Ancient Geography*, a town and promontory of the Cimmerian Bofphorus, where anciently was the temple of Achilles; now *Cape di Crono*.

*Achilles*, in *Ancient History*, the fon of Peleus and Thetis, was one of the moft celebrated heroes of Greece. He was born at Phthia in Thellaly. His mother, it is faid, dipped him in the river Styx, by which his whole body became invulnerable, except the heel by which she held him. This raction, however, is not universally received; for it appears by Homer's account, (II. i. xvi. v. 161, &c.) that he was actually wounded in the right arm by the lance of Acheus, in a battle near the river Scamander. He was enthrall'd also by Thetis to the care of the centaur Chiron, who fed him with honey and the marrow of lions and wild boars, in order to fit him for enduring mortal toil, and taught him horfmanship and the ufe of arms. When he attempted, by concealing him among young women at the court of Lycomedes, to prevent his going to the fiege of Troy, where, as the had been warned by an oracle, he would be slain; Ulyfles, being admonifhed by an old prediction that, without Achilles, the enterprise against Troy would be unsuccessful, discovered him, and prevailed upon him to follow the Greeks: his mother having procured for him an armour made by Vulcan, which was impetrable. During his concealment he was faid to have debauched one of the king's daughters, of whom was born Pyrrhus, king of Epirus. Pausanias observes, that Homer has omitted this circumstance as difhonourable to his hero, though it has been
been recorded by all the other poets. At the siege of Troy Achilles distinguished himself by a variety of heroic actions; but being dissuaded by Agamemnon for the loss of Briseis, he retired from the camp. When he afterwards returned to avenge the death of his friend Patroclus, he flew to Hecston, fastened his horse to his chariot, and dragged him three round the walls of Troy. The body was afterwards redeemed by the father with a large sum. At last being wounded in the heel with an arrow by Paris, the brother of Hecston, whilst he was in the temple treating about his marriage with Philoctena, daughter to king Priam, the wound proved fatal to him; and he was interred on the promontory of Sigeum. 

When Troy was taken, the Greeks sacrificed Philoctena on his tomb, in conformity to his requell, that he might enjoy her company in the Elysian fields. It is said, that Alexander, when he saw this tomb, honoured it by placing a crown upon it; exclaiming at the same time, that "Achilles was happy in having, during his life, such a friend as Patroclus, and after his death, a poet like Homer." Achilles is supposed to have died 1184 years before the Christian era. Homer has been blamed for making his hero Achilles of too brutal and unmanly a character. This charge, Dr. Blair apprehends, is unjust to Achilles, and it is founded on an exaggerated representation of his character by Horace, de Arte Poet. p. 55. Ed. Wakefield.

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Achilles, in Geography, is the W. point of the islands of Achl on the W. coast of Ireland. N. lat. 51° 51'. W. long. 10° 45'.

The coast between this head and Sline head is much indented by bays and creeks. Archierluk, or Acharifton point is eight leagues S. of this head, and from thence to Sline head, 8. by the eight miles more. Within land there is between these a height hill, called St. Patrick's hill, which may be seen at sea to a great distance. Achill-head is a very high point, and appears at a distance with a hollow in the middle. Within these are two high mountains; and these three appear at sea like three islands.

Achillini, Alexander, in Biography, a native of Bologna, and distinguished both as a philosopher and a physician. He flourished in the 15th and 16th centuries, and was called, by way of eminence, the great philosopher. His progress in his studies was so rapid, that he was promoted in early life to the honour of being professor in the university. In the year 1506 he removed to Padua, where he filled the first chair of philosophy, and drew to his lectures a great number of students. When the war, in which the republic of Venice was engaged against the league of Cambry, constrained him to leave Padua, he returned to his native country, and was again appointed professor of philosophy in Bologna. He adopted and maintained the sentiments of Averhucis; and was particularly distinguished for his acuteness in the conduct of private and public disputations. To him some have ascribed the discovery of the malice and incus, two small bones in the organ of hearing. Achillini was a man of singular simplicity, and so unacquainted with the common modes of civility and address, that he was often ridiculed by the young scholars who attended him, though much and deservedly esteemed on account of his learning. He was the rival of Pamoracius, who sometimes acquired a superiority over his arguments by his wit and humour. He died at Bologna in 1512 at the age of 42 years; and was buried with great pomp in the church of St. Martin the great, belonging to the Carmelites friars. The following epitaph, composed by Janus Vitalis, was inscribed on his tomb: viz.

"Hospes, Achillinum tumulo qui queris, in iito
Falleres: ille fuso jucundus Arid B(.h)ci
Elyphum colit; et quas rerum hic dicere causas
Vix potuit, plenis uide vidit oculis.
Tu modo, per camerum dux nobilis umbra beatos
Errat, die longum perpetuumque vale!"

He wrote several pieces on philosophical subjects, which he published and dedicated to John Bentivoglio. His works are, 1. In Mundini Anatomia, Annotationes. Venet. 1522; fol. 2. De Humani Corporis Anatomia, Venet. 1516; 1521; 4to. In 1568, a collection of all his works, philosophical and medical, was published at Venice in folio.

Achillini, John Philotheus, a brother of the former, was the author of a poem intitled Il Vindicaro, in which are found the eulogies of several Italian literati, and various lessons of morality. It was printed at Bologna in 1512. He was born at Bologna in 1466, and did in 1538. He was a man of talents and erudition, and conversant with the Latin and Greek classics, with music, philosophy, theology and antiquities; of which latter he has made ample collections.
ACHILLES, Claudius, was grand nephew of Alexander. He was eminent as a philosopher, divine, lawyer, orator, mathematician and poet. He read lectures at Parma, Ferrara and Bologna, the place of his nativity. His hopes of preferment were repeatedly disappointed. At last, however, the duke of Parma appointed him professor of law, with a good salary. He published a volume of Latin letters, and another of Italian poems at Bologna in 1622, which gained him great reputation. He was born in 1574, and died in 1640. Gen. Diet.

ACHILLES, the name of an officer, who prefigured over the practice of medicine at Cairo. His business is to examine for fever, in order to prefix physic in that city, and to license only such as found to be duly qualified. There is, without doubt, the intention of the appointment; but as the Achiltale sells his office of the Biface, the license of practicing physic there is granted to the persons offering the largest fee, and not to those most distinguished by knowledge in their profession.

ACHINOU PASS, in Geography, lies between the island of Negropont and the main in the Archipelago. N. lat. 29° 43'. E. long. 23° 55'.

ACHIOTTE, a red drug from America, used in dyeing, and in the preparation of cochineal. The word is Brinvilian, and properly signifies the tree from this which is procured. Ray writes it Achiotte. Achiotte is the same with what the French frequently call roucou, and the Dutch ruco. It was formerly, and even by Mr. Ray himself, called a kind of amara, or earth; but later observers find it to be a flower, or seed of a tree, which grows chiefly in hot countries, as Yucatan or Campeche, and Guatemala. It is about the size of a plum-tree, only more tufted; its branches being longer than the trunk. The fruit is indeed in a kind like a chufet, except that it is of an oval figure. It begins to open outside from the middle to the top, and falls into four parts; having in the middle a beautiful carnation-coloured flower. The tree has no leaves; but instead of these shoots out filaments like those of afioron, only bigger and longer. Between these grow little soft viniuncule dark-brown, about the size of pepper-cor; which the Indians, separating from the filament, bake in cakes of about half a pound each; in which form the drug is brought into Europe. For the use to which it is applied, and the method of preparing it, see Annatto and Roucou. See also Beta Oriliana.

ACHIROPOLETOIS. See ACHEIROPOLETA.

ACHIVI, in Ancient History, a name given by the Roman poets to the people of Greece, or Achaians. See Achaeans. Homer (ll. i. iii. v. 8.) utes the term to express all the enemies of the Trojans.

ACHLETTEN, in Geography, a town of Germany, in the circle of Austria, on the Danube, four leagues E. S. E. of Ena.

ACHLET, a town of Great Armenia, situated on the north side of the lake Van, or Aeramar. This town, though small, is important to the Turks, because it lies on the frontier of their empire, and is well fortified. N. lat. 39°. E. long. 45°. 20'.

ACHLIS, in Zoology, a name given by Pliny to the species ALCEI, or Elk.

ACHLYS, oxus, literally signifying a kind of cloud, in Surgery, a darkness or dimness of sight. It also denotes a small tear or mark over the pupil, of a light blue colour, and is synonymous with caligo corneae, or blindfolds from opacity of the cornea. It is the leucoschyle of Sauvages, and is described to be a speck of the cornea, somewhat polished, which occasions objects to appear as if seen through smoke, or a cloud, and therefore obscured. By oblique inspection it is discovered to be different from the opacity of the aqueous humour, accompanying some diffuseness of the eye. This species often arises from a various opthalmia, or moist one, or whatever can render the cornea opaque. In infants, as they grow up, it often vanishes spontaneously. The juice of pimpernel, either the blue or purple, dropped into the eye twice a day for a week, and the juice of the common flat-thistle and blue-bottle, are useful. Sugar-candy powdered is often sufficient. Emetic wine, which is the least hurtful, may be dropped into the eye with advantage. The vapours of aniseed, or funnelled water, are of service. See Wallis's Dictionary Medicae Oeconomiae.

In a metaphorical sense, achlys also denotes a disorder of the womb, answering to what Latin authors call affago uteri.

ACHLYS, in Mythology, is applied by some Greek authors to the first Being, who existed before the creation of the world, of chaos, and of the gods.

ACHMET, in Biography, an Arabian author, supposed to have lived about the fourth century, wrote a book on the Interpretation of Dreams, according to the doctrine of the Indians, Persians, and Egyptians. The original is lost, but it has been preserved by curiosity, or superfluous credulity in Greek and Latin. It was published, together with Artemidorus on Dreams and Chromancy, by M. Rigaud, at Paris, in 1653, 400. Gen. Diet. and Gen. Biog.

ACHMET I. emperor of the Turks, was third son and successor of Mahomet III. and ascended the throne before he had attained the age of fifteen. His reign was attended with various circumstances, both prosperous and adverse to the Turkish empire. The Albigue rebels, who took refuge in Perigord, the great effect of the two empires in a war, during the progress of which Bagdad was taken from the Turks, and which lasted, with interruptions, for several years. In this reign Transilvania and Hungary were the scenes of warfare between the Turks and Germans; and the former were assisted by Bethlem Gabor and Potakay. The tranquillity of Achmet was disturbed by various disasters and calamities, which occurred both by sea and land, by a pretender to his throne, and by attempts on his life. His time, however, was chiefly devoted to the gratifications of the harem, in which he had 3000 women, and to the sports of the field, for which purpose he kept 45,000 falconers, and nearly as many huntsmen, in different parts of his dominions. He expended large sums in building, and particularly on a mosque which he erected in the Hippodrome. Achmet was less cruel than his predecessors; but he was haughty and ambitious. His constitution was strong, and his life was active; nevertheless he died at the age of 29, in 1617. His three sons successively ascended the throne after him. Mod. Un. Hist. and Gen. Biog.

ACHMET II. emperor of the Turks, son of Sultan Ibrahim, succeeded his brother Solymah, in 1601. This prince, though devout and inoffensive, cheerful and condescending, just and amiable in private life, was destitute of the talents necessary for the exercise of sovereign power. He was fond of poetry and music, in both of which he made some proficiency. He died in 1695, at the age of 50, requesting his

ACHMÉT II., emperor of the Turks, son of Mahomet IV. was raised to the throne on the deposition of his brother Mustapha II. in 1703. His first object after removing the malecontents, was to annex wealth; and with this view he debased the coin, and laid new taxes. When Charles XII. of Sweden, in 1709, after the battle of Pultawa, took refuge in the Turkish dominions, he was received with great hospitality; and under the influence of the sultan neither war was declared against Czar Peter, which terminated by the peace of Pritsch. The King, however, was at length obliged to quit the Turkish dominions. Achmet recovered the Morea from the Venetians; but in his expedition into Hungary, in 1748, his army was defeated by Prince Eugene, at the battle of Peterswaradin. Achmet was led by his ministers and favourites, and their influence frequently occasioned political revolutions. He is said, however, to have refuted in dignified and public places, in order to discover the sentiments of his subjects. At length a faction among the soldiers caused his dethronement in 1750, and the elevation of his nephew Mahomet V. He was confined in the apartment whence his successor had been taken, and continued immolated till he was removed by an apoplexy in 1756, at the age of 74 years. Achmet was a prince of moderate abilities, and good intentions; but confidence in his vizier obscured the lustre of his reign, and brought it to a speedy termination. Mod. Un. Hist. Gen. Biog.

ACHMÊT-SHET, in Geography, a town in the peninsula of the Cimone, the residence of the Sultan Galga, the elder son of the Khan of Tartary. It stands on the largest river in the country, E. long. 51° 20'. N. lat. 45° 35'.

ACHMÎL, a large town of Upper Egypt, situated on the eastern bank of the Nile: the Chenniss of Herodotus, and Panopolis of Strabo. On a triumphal arch, situate a few 100 yards south of the convent, and built of marble by the emperor Nero, there is a Greek inscription, says Mr. Bruce, εῖς τὸν Καισαρίαν Καίσαρα. The temple of this place, says Abdulfed, is one of the most celebrated monuments of antiquity: being constructed of stones of a prodigious size, on which are sculptured innumerable figures. There may still be traced four concentric circles in a square; the innermost of which contains the sun; the two next are divided into twelve parts, one containing twelve birds, and the other twelve animals almost effaced, which appear to be the signs of the zodiac; the fourth presents twelve human figures, which Savary supposes to be the twelve gods representing the twelve months of the year, as the Egyptians, according to Herodotus, (I. ii.) first divided the year into twelve months, and the angles of the square, on the sides of which they may be distinguished a globe with wings, are occupied by the four seasons. This temple was probably dedicated to the sun; and these various hieroglyphics mark his passage into the signs of the zodiac; whence Savary infers, that the Egyptians possessed the knowledge of astronomy from the remotest antiquity.

The serpent Hariti is the wonder of the neighbouring country. Scheilik Hariti, above a century ago, died in this place; and as he was deemed a saint among the Mahometans, they raised a monument in honour of him, and one of their priests persuaded the people, that the soul of Hariti passed into the body of a serpent. This artful priest had contrived to make a serpent obedient to his voice, and he pretended to perform a variety of tricks, and to cure many disorders by means of this serpent, which he confined to the tomb, and made the instrument of great gain to himself. The virtues of this serpent are acknowledged by the Chris-
ACHRAS, or Sapota-Plum, in Botany, a genus of the
Hexandra Muntingiana class, and of the natural order of
Diosmofe. The characters are; the calyx is a perianthium,
confiding of five ovate, concave, erect leaflets, the outer
broader and shorter, and the inner coloured: the corolla is
one-petalled, ovate, of the same height with the
border cut into five subovate flat divisions, and scales
at the jaws of the corolla, equal in length to the divisions,
narrower, spreading, and margined; the stamina have five
short awl-shaped filaments at the jaws of the corolla, alternate
with the divisions, bent inwards, and the anthers are sharp:
the pistillum has a roundish, flatted germén; the
style is awl-shaped, longer than the corolla, and the
stigma is obtuse; the pericarpium is a glbose, very succulent
pomum, with twelve cells; the seeds are folicate, ovate,
finishing, scarred on one side, and pointed at the base. There
are four species, viz. 1. The mamonja, or mameé lapota,
otherwise called nipple S. or American marmelade, growing
in America to the height of thirty or forty feet, with
leaves a foot long, and three inches broad in the middle,
cream-coloured flowers, and large oval fruit, containing a thick
juiceous pulp, called natural marmelade; this tree is planted
for the fruit in Jamaica, Barbadoes, Cuba, and most of the
West India islands, and was cultivated here by Mr. Miller
in 1739: of this there is a variety, called the bully or riberry
bully-tree, because it is the tallest of all the trees in the
woods; it is esteemed one of the best timber-trees in Jamaica.
2. The sapota, which grows to the height of sixty or seventy feet, without roots or branches, and bears a round, yellow fruit, larger than a quince, which smells
well, and is of an agreeable taste; it is common at Thames,
and some other places in the Spanish West Indies, but not
to be found in many of the English settlements; it was
cultivated here by Mr. Miller, in 1758. 3. The difficata, or
clove-flowered S. cultivated in Malabar for the fruit, which
is of the form and size of an olive, having a pulp of a
sweetish acid flavour; its leaves are used for cataplasm
for tumors, bruised and boiled with the root of curcum and
the leaves of ginger, supposed to be a native of the Philip-
ines islands, and probably growing in China, and found by
Forster, flowering in September, in the island of Tonga-
tabu. 4. The felisfilia, or willow-leaved S. called in Ja-
mica white-bully tree, or galaveta wood, which supplies
good timber; cultivated here by Mr. Miller, in 1755. The
bark of the sapota and mamonja is very aromatic, and is
called cortex Javanesis. This was once supposed to be the
true fennit's bark, but its effect on the negroes has been
pernicious. These trees being natives of very warm cli-
mates, cannot be preserved in England, unless they are
placed in the warmest houses, and managed with great care.
Miller's Dict. by Martyn.

Gmelin has added the balata, with ovate oblong leaves,
hoary underneath, and an oblong ovated pomum.

ACHRIDE. See Ochidea.

ACHHACORDES of Java, in Natural History, one
of the genera of serpents, in the second volume of Count de
Cape's natural history. This genus is described by M.
Hornbltadt, a Swedish naturalist. Its body and tail are
covered with little warts or tubercles; its back is black; its
belly and sides are whitish; the latter are marked with Black
spots; the head is flat, and covered with small scales; each
jaw of the mouth, which has a small opening, is armed with
double row of teeth, but it has no poisonous fangs; the
largest part of the body is near the anus, and the tail is
remarkably slender. The specimen from which this defcrip-
tion was taken measured eight feet and three inches in
length; its tail was eleven inches long; and the greater
diameter of the body was above three inches. It was a
female, and in it were found five young ones, completely
formed, and nine inches long.

ACHROMATIC, composed of a priv. and xepoat, co-
tour, and denoting without colour, a term, says M. de le
Lande, first introduced into his astronomy, to denote te-
kscopes of a new invention, contrived to remedy aberration
and colours. See Achromatic.

ACHRONICAL, in Astronomy. See Acronychal.

ACHSTEDE, in Geography, a small town of the circle
of Lower Saxony, in the duchy of Bremen, two leagues
north of Bremen.

ACHSTETTEN, a town of Germany, in the circle of
Swabia, two leagues N. W. of Augsburg.

ACHTELING, a measure for liquors used in Germany.
Thirty-two achtelings make a heener; four heliums or
feet make an achteling.

ACHTIAR, in Geography, a small commodious haven
near Inkerman in the Black Sea.
ACHTIRKA, a town of Russia, in the government of Charkov, ten German miles W. S. W. of Charkov.

ACHTUBA, a river of Russia, which rises from the Volga, a little above the town of Tverizin, and runs parallel with that river to Kakhnojor, near which place it joins it, and flows with it into the Caspian Sea.

ACHY, a species of Cassia, that grows in Arabia.

ACHYRI, in Geography, a strong town and castle of the Ukraine, subject to the Russians since 1667. It stands on the river Uorkofo, near the frontiers of Russia, 127 mls. west of Kiow. E. long 36° o'. N. lat. 49° 32'.

ACHYRACANTHIA, in Botany, a name given by Dillenius to the ACHYRANTHES of Linneus.

ACHYRANTHA, a species of Ilexacium.

ACHYRANTHES, formed of zygos, chaff, and acis, a flower, in Botany, a genus of the pantanaria monogynia class of plants, belonging to the natural order of mistletoes Linn. and of amoranthi Jaff. The characters are these:—The calyx consists of an outer perianthium, that is threeclefted, lanceolate, acute, permanent; and of an inner one, that is five-leaved and permanent; it has no corolla; the nectarium has five valves, surrounding the germ, bearded at the tip, concave and caduceous; the stamens are filiform filaments, of the length of the corolla, and the anthers are ovate and incumbent; the perianthium has a superior turbinate germ; the style is filiform, of the length of the stamens, and the stigma is bulb and villous; the pappus is capitate, roundish, one-celled, not graping; and the seed is single and oblong. There are eleven species, viz. 1. aphaca, or rough, of which there are two varieties; the Sicilian plant with oblong pointed leaves, growing near three feet high, and the Indian, found in Malabar, Ceylon, Jamaica, and almost every where within the tropics, with broader leaves, and on both sides smooth and green, cultivated here in 1713; 2. inca, or briny, a lofty plant, a native of Malabar and Ceylon, cultivated by Mr. Miller in 1759; 3. murieta or prickly, a native of India, introduced in 1777, by M. Thouin; 4. putica or spreading: 5. alterifolia or alternate-leaved; both natives of the East Indies; 6. corvus, formerly belonging to the Celsia of Linnaeus, a native of Ceylon; 7. dichorona, a native of Virginia; 8. germina, a native of India; 9. nivosa or white, a native of the Canary Islands, introduced here in 1780, by Mr. Maffon, and flowering from May to July; 10. orinaria or tall, climbing up trees to the height of twenty feet, common about Spanish-town and Kingston, in Jamaica, and in the woods of Domingo, and called by Browne bastard hops-withes; 11. papyrosiana, found in Arabia and Malabar. Gmelin enumerates seventeen species; adding the papillosa, lobiflora, or ILEXACIUM longum, pantanaria, capitata, and densiflora, found near York, fl. sg. Arab. The several species have little beauty, and are only preferred in botanic gardens.

ACHYRONIA, in Botany, a name given by Van Royen to a genus of plants called by Linneus ASPALATHUS.

ACHYROPORUS, the name given by Vaillant to the Phytophores of Linneus.

ACIZIB, or ACZIB, in Scripture Geography, a town of Galilee, in the tribe of Asher, nine miles from Ptolemais; probably the same with that called by the Greeks Ezechippa; also, a town in the more southern parts of the tribe of Judah.

ACIA, formed of the vernacular name Aciou in Guiana, in Botany, a genus of the Monadelphia monographia class, and natural order of pomaceae. Its characters are:—The calyx is a one-leaved, turbinate, curved perianthium, with a five parted border, the parts roundish and spreading, the uppermost and two lowest larger, the two middle ones smaller; the corolla has five, oblong, rounded petals; the three upper longer, ascending; the two lower shorter; the stamens consist of twelve unequal filaments, uniting at bottom into a linear filiform membrane, inserted into the calyx between the two smaller petals; the anthers are roundish and small; the pistil has an ovate germen, above the base adhering by the membrane of the stamens to a rib internally prominent from the bottom of the calyx; the style is filiform and curved; the stigma acute; the perianthium is an ovate, fibrous, chipped, large drupe; the seed is an ovate nut, with a bristle shell. There is one species, which is a tree, whose trunk is thirty feet high, and three or four feet in diameter, covered with a smooth grey bark; the fruit is of the size of a walnut, including a large kernel, of an agreeable taste, and eaten by the crocodiles when brought to market in Amazonia; they also extract an oil from it, as sweet as that of almonds; the wood is hard and heavy, and of a yellowish white colour.

ACIA, a term in the Roman Surgery, concerning the meaning of which physicians and commentators are much divided. Celsus, speaking of the healing of wounds, either by future, or by the fossil, says, each is best effected by means of a soft acia, not too much twitted, that it may fit the easier on the body. Boechornius will have the acia to be the acia of the fossil, or that part which is pierced in which view, acia mollis only imported, that it was not fit so as to pinch too much.

ACICOLA, in Botany, an herb that grows in Peru, and is sometimes used instead of the herb PARAGUAY, of which it is said to have all the properties.

ACICULA, in Natural History, a species of Bucesnum, with a smooth, fabulated, very thin shell, transversely frusted with conical spiral windings. It is found in fresh waters. Acicula is also a species of Helix, with an oblong acuminate shell, longitudinally ribbed and transversely frusted, and an oval aperture; found in Coromandel.

ACICULAE denote small spikes, or prickles, in form of needles, with which nature has armed several animals and plants.

ACID, in Chemistry, is used in common language as a generic name for all those substances which impel the organs of taste with a sharp four sensation. Since, however, there are certain bodies destitute of this property, which nevertheless are called by all chemical writers acids, this popular characteristic must be abandoned as essential, for one which is more comprehensive.

Newton's well known definition of an acid, 'that which strongly attracts, and is strongly attracted,' would have required notice only in the history of chemical opinions, if it had not been implicitly adopted by one of the chief chemists of the present age, C. Guyton Moreau. (Dict. Method. art. affe.) Now if any one should ask me, 'what is an acid,' I reply, it is that which of all palpable bodies has the most powerful solvent, which acts on the greatest number of other bodies; that, as Newton has so well expressed it, which strongly attracts, and is strongly attracted. It is a greater fault for a definition to be too comprehensive than too circumscripted, and that which has been just quoted not only includes alkales as well as acids, as indeed Moreau allows, but all the active chemical agents, such as water, alcohol, hydrogen, oxygen, &c. for they are all powerful solvents, act on a great num-
out of other bodies, strongly attract, and are strongly attracted. In fact, there is no one property peculiar to the genus acid, and which belongs to each species, so that it is not possible to give a definition of the term; nevertheless, by combining together the general distinguishing qualities of acids, and noting at the same time the exceptions to these, a description may be produced more illustrative than the most laborious definition.

Previously to the consideration of the general properties of acids, it will be an advantage to give a sketch of the opinions held by the old chemists concerning their origin and mode of action, and to examine more at large the theory of Lavoisier upon the same subject.

When the mechanical system was in vogue, according to which the chemical action of bodies was explained by the suppos’d figure and size of their respective molecules, acids were supposed to be a genus of fluids, composed of extremely small and sharp spicules, which readily penetrated into the minutest pores of the substances subjected to their action, and thus separated from each other their component parts; while, at the same time, the acid became neutralized by its points being dashed in the pores of the body with which it was mixed. This explanation was, however, ably contested by Boyle, and by Stahl in his work on fats: and, at length, together with other chemical phenomena, the solvent power of acids was arranged by Macquer and his contemporaries, under the general laws of elective attraction.

After a few of the acids were discovered, it was suppos’d by Paracelsus, and several chemists of his age, that there existed an universal saline element, or principle of acidity common to all acids, which therefore differed from each other rather in mode than essence. Becher, though he allowed the unity of the cause of acidity, yet affirmed it to be composed of water, and variable earth, and therefore not entitled to rank as an element. Stahl, in his valuable researches into the existence of phlogiston, and the composition of fats, was induced to believe that the sulphuric acid, or as it was then called the vitriolic, was the original acid, of which all the rest were only modifications. A similar opinion was held by Sage and Landriani, except that the former suppos’d the phosphoric acid, and the latter the carbonic acid, to be the primary one. The discovery of dephlogisticated air (oxygen gas) having been made by Priestley in 1767, a multitude of experiments were soon after instituted by the chemists of Europe on this interesting substance; and, in 1773, a memoir was presented to the royal academy of sciences at Paris, by Lavoisier, on the composition of the acid of fagat. In this, after having described the method of preparing the acid of fagat by means of nitrous acid, he concludes, that the conversion of nitrous acid into fagat gas, is owing to the abstraction of part of its oxygen by the fagat for the fagat substance, and that the fagat in consequence of its union with oxygen acquires the properties of an acid. Proceeding afterwards to generalize this inference, he maintains that oxygen is the universal acidifying element, and that by combining in certain proportions with combustible bakes without decomposing them, it thereby converts them into peculiar acids. This doctrine, simple and elegant, and plausible as it was, did, however, at first meet with general concurrence; but, in the course of the controversy, it gradually acquired, and merited new advocates from the accumulated testimonies of experiment in its confirmation. The publication of Lavoisier’s Elements of Chemistry, in 1789, contributed more than any thing else to settle the opinion of chemists upon the subject; in this work he demonstrates that phosphoric and charcoal, and sulphur, being separately inflamed in oxygen gas, combine with its bakes, acquire an additional weight equivalent to that of the air consumed, and are converted into the phosphoric, carbonic, and sulphuric acids.

Besides the analytical arguments above alluded to, the Lavoisian theory is supported by an equal number of analytical experiments, in which most of the known acids are decomposed into oxygen, and one or more combustible bakes. The most elegant experiments of both kinds of proof is furnished by the nitrous acid: if purified nitre (nitrate of potash) previously deprived of its water of crystallization, be exposed in a silver retort to a low red heat, a large quantity of gas, containing of oxygen and azote, in the proportion of about 80 of the former to 20 of the latter, will be given out, and pure potash will remain in the retort, whole weight together with that of the gasses will be equivalent to that of the original nitre; the mixed gasses are wholly distillate of acid properties, but by being forced into union by means of the electric spark, their volume is gradually diminished, and at length the whole is reduced to an acid liquor,possessing all the qualities of nitrous acid; if this and the potash remaining in the first process be mixed together, chemical union immediately ensues, and nitre is reproduced.

Three of the known acids are incapable of being decomposed by any method that we are at present acquainted with; it is therefore only from analogy that they are supposed to contain oxygen for their acidifying principle; this circumstance, however, is no peculiar objection to the theory of Lavoisier, for since all the decomposable acids may be resolved into oxygen and a simple or compound combustible base, it seems consistent with the principles of chemical philosophy to establish that as a general law, to which in the present state of our knowledge, there is not a single exception.

Substances, whole mutual affinity is indeterminate, may combine with each other in various proportions, and the resulting compounds will vary in their properties accordingly: this is the case with all the known acidifiable bakes which in their lowest state of oxidation exhibit no acid properties whatever; nor is the development of an acid an evidence of the complete saturation of its base with oxygen, there being several acids capable of combining with additional quantities of oxygen, and thus acquiring new and more decided acid characters.—It is even suppos’d that some bases may be oxygenated in three different degrees, preferring in each the equivalent qualities of acids; hence results an important arrangement of acids according as they are oxygenated in the first, second or third degree. The reform’d chemical nomenclature on the principles of Lavoisier and Moreau, has ingeniously distinguished these. It is by the terminations ox and oxi, and the prefixes ho (for oxygenated); thus sulphur, at the lowest state of oxygenation in which it acquires acid properties, is called sulphurous acid; when fully oxygenated it becomes sulphuric acid; thus also, nitric acid, when raised to the third degree of oxygenation, becomes oxy-nitric acid.

The old chemists divided acids into mineral, vegetable, and animal, according to their supposed origin; this, however, is not only an incorrect, but an incorrect method of arrangement, as many of these bodies are found in all the three natural kingdoms. Upon the whole, perhaps, the best way of arranging them is the following:—

States
The chemists of the last century seem to have been acquainted only with the three mineral acids, as they are called, viz. the sulphuric, nitric, and muriatic, and with the acetic acid or vinegar: the accuracy and industry of the moderns have increased the number of species to twenty-nine; how many more may be hereafter added to the list it is impossible to ascertain. Without adverting to the possibility of discovering new acidifiable bodies, it is by no means improbable, however, that many of the simple combustible bodies as the metals, or the compound ones as phosphorous hydrogen, sulphurated hydrogen, the metallic phosphates, &c. may be so far saturated with oxygen, as to become peculiar acids.

The characteristic properties of acids, i.e. the peculiar laws and effects of their action on other chemical substances, yet remain to be mentioned.

1. When taken into the mouth they occasion a sour taste.
2. They change native vegetable blues to red.
3. They have a stronger affinity for alkalies than these have for any other substance.
4. They combine with earths, with alkalies, and with metallic oxides, forming the numerous and very important classes of earthy, neutral, and metallic salts, most of which are incapable of crystallization.
5. The property of incombusibility has been generally attributed to acids as a characteristic, but certainly very erroneously. The most incombusible of the acids are no more so than the fixed alkalies, the earths, and the perfect metallic oxides; and all the acids with two or three radicals, and those with simple radicals in the first state of oxygenation, are, strictly speaking, combustible, that is, they unite at a certain temperature with oxygen gas, during which combination heat, and in some cases light also are extracted.

The medical effects of acids are considerable, and vary according to their degree of concentration; the most active, when pure, or nearly so, are used externally as caustics and ephoratics, and as powerful stimulants in some cases of palsy; if largely diluted with water, they may be safely employed internally in fevers, inflammations, and hemorrhages, as refrigerants and allurants.

For the particular acids, see them under their specific names.


ACIDALUS, VALENS, in Biography, an eminent grammarian and critic, was born at Wittloch in Brandenburgh, and after visiting several academies on the continent, fixed his residence at Breilaw. Being disappointed of employment, he became a Roman Catholic, and was chosen rector of a school at Niefa. Thunius informs us, that he was a very close student, and that his nocturnal studies, which were unreasonably prolonged, whilst he was composing his conjectures on Plauto, occasioned a delirium that terminated in his death, on the 25th of May 1595, when he was just turned of 28. He wrote a Commentary on Quintus Curtius; Notes on Tacitus; on the twelve Panegyrics; besides speeches, letters, and poems. A small piece, printed in 1595, and intitled, Mulieres non esse homines, or that "women were not of the human species," was falsely ascribed to him. He only accidentally found the MS. and printed it. It is said, that in order to appease the wrath of some ladies, who reproached him as the author, he declared his opinion, that the author was a judicious person, the ladies being certainly more of the species of angels than of men. M. Baille, who admits him among his Eniens celebres, says, that his comment on Plauto was written when he was not more than seventeen or eighteen years of age, and that he composed several Latin poems about the same period.

ACIDILUS, the name of a fountain in Orc, menos, a city of Boeotia, in which the Graces, who are sacred to Venus, bathed; hence the epithet Acidilus, given to Venus. See Virgil, Æn. i. v. 724.

ACIDAVA, in Ancient Geography, a town of Dacia, towards the country of the Jazyyi.

ACIDIFIABLE base, ACIDIFICATION, in Chemistry. The general theory of the formation of acids has already been explained under that term. An acidifiable base or Radical is any substance, whether simple or compound, that is capable of uniting without decomposition, with such a quantity of oxygen as thereby to become possefts of acid properties. All acids agree with each other in containing oxygen, but differ from each other in their radicals; hence it is the acidifiable base that determines the species of acid. This term was unknown in chemistry; previously to the discoveries of Lavoisier on the composition of acids, because these bodies that are now proved to be convertible

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The states of oxygenation are:

- Acetic
- Tartaric
- Citric
- Oxalic
- Malic
- Gallic
- Benzoic
- Succinic
- Saccharic
- Formic
- Sebaceic
into acids by combination with oxygen, were suppossed by Stahl and his followers to be already acids united to phlogiston: thus sulphur, which according to the present theory is a chemical element, and capable, by combination with oxygen, of being converted into sulphuric acid, was, by the Stahlians, considered as a compound of sulphuric acid and phlogiston.

The object of the reformed chemical nomenclature is to denote, as much as possible, the composition of bodies in the names appropriated to them; thus sulphur, carbuncle, and phosphoric acids express the perfect saturation of their respective bases, sulphur, carbuncle and phosphorus, with oxygen. This rule, however, has by no means been uniformly adhered to, and the young student in chemistry, reading of the benzoic, succinic or sebacic acids would on this account be led into an error if he suppos’d that benzoe, amber, or fat were the acidifiable bases of the acids that bear their names. Almost all substances are capable of combining with oxygen, but it does not therefore follow that they are acidifiable bases; that the process of acidification may take place a large proportion of oxygen seems essentially necessary, otherwise the result is only an oxyd. Hence oxysulphuric substances may be divided into those which are capable only of a low state of oxydation, or proper oxysulphuric bases; and into those capable of a further combination with oxygen by which they acquire acid properties, or acidifiable bases. Acidification may be performed in various ways according to the temperature and the affinity of the base for oxygen. The two great refinements from which nature procures her oxygen for the composition of acids are water and atmospheric air, the former confining of oxygen and hydrogen, and the other of oxygen and azot. The chemist employs principally oxygen gas and atmospheric air at a high temperature, as in the formation of carbonic and phosphoric acids by combustion of charcoal and phosphorus, or the nitric acid as in the formation of the sulphuric and oxalic acids. The acidifying processes of art are generally more rapid than those of nature.

ACIDITY, the quality which constitutes or denominates a body an acid, or that sensation of sharpsnes and sourness which acids excite upon the organ of taste.

ACIDON, a river of Peloponnesus, called also Acidus, which united with Jardanus, near Argus.

ACIDOTON, in Botany, a genus of the monoecc pistachio class and order; the characters of which are, that it has male and female flowers on the same, or a different tree; the calyx of the male is a five-leaved perianthium, and the leaflets are ovate-lanceolate and reflex; it has no corolla: the flamina are numerous filaments from 3 to 40, placed on a globular receptacle, the outer shorter, the inner longer and upright: the androdes are cordate-ovate, upright and small: the calyx of the female is a six-leaved perianthium: the leaflets linear-lanceolate and spreading; no corolla: the pistillum is a three-corned germen: the style short, acute, thick and trifid at the top: the stigmas are tormentose and reflex: the pericarpmum is a three-grained, hilifuse, threecelled capsule; and the seeds are solitary and ovate. There is one species, viz. A. urticae, a native of Jamaica, described by Sloane, though he never saw the flower and fruit, which grows to the height of eight or nine feet. Miller’s Dict. by Martyn. This, in Gmelin’s edition of Linneas, is a genus of the polyandria monogynia class and order.

ACIDOTON is also a species of Abelia.

ACIDULA, in Ancient Geography, a fountain of Italy, near Linturnum, to the waters of which, probably impregnated with fixed air, or carbonic acid, Phryg affixes a salutary effect, as an antidote to stone and gravel.

ACIDULUM, a species of mineral waters, distinguished by their sparkling appearance when poured from one vessel into another, and by their brisk acidulous taste; they contain a considerable quantity of free carbonic acid to which these properties are owing.

ACIDULATUM, a term denoting any thing blended with acid juices, in order to give it a acridis and brillantis.

ACIDULUS, a term applied to a thing that is slightly acid: it is synonymous with the word jal-acid.

ACIDULUM, Acidity, a term used in the new chemical nomenclature, to express a genus of native compound acids, in which the alkaline base is superacified with acid, and which therefore are employed in various chemical processes, and for economical purporses as acids. We are at present acquainted with two species, the tartaricus aciddnum, or aciddulum tartartite of potash, and the oxalic acidulum, or aciddulam oxylal of potas.

ACIDUMPINGUE, Cauficum Acidum gratus. Fr. Feu-faure Germ.

In the year 1764, when the abilities of Macquer, Bergman, Black, and Scheele, had already discovered many important chemical facts, which were with difficulty explicable on the Stahlian theory, and when the rigorous method of demonstration so honourable to the present age had not as yet been universally admitted to, there appeared in German a volume of Essays on the subject of Lime, by Fred. Meyer an apothecary of Oldenburg, announcing the discovery of a new chemical agent, the acidum pingu, with an extensive theory dependent upon it, and, in many respects, essentially contrary to the conclusions of Dr. Black, from his admirable experiments on the same subject. Several of Meyer’s countrymen became the zealous advocates of his system, and it was soon taught publicly in many of the German schools. At length, in 1769, Jacquin published an able vindication of Black, intitled Examens chimicae doctrinae Meyerianae de acido pingue, et Blackianae de acido pingue, &c. Vindobonae. This work brought out in the course of the following year a reply by Grütz, and another by Pourchot, both of them strenuously defending the doctrine of Meyer. It does not appear that any thing more was expressly written on either side, but by the accumulation of the splendid discoveries of Lavosier, Priestley, &c., the theory of Meyer was generally overthrown and the conclusions of Black unequivocally established. Nearly the same hypothesis was afterwards revived by Sasse in the effects attributed to him by an imaginary principle, the igneous acidum, (acide igné) but which has not been since recognized by any chemical writer.

The facts upon which Meyer’s doctrine is founded are the following. Mild calcareous earth being kept at a full red heat for a certain length of time is converted into quicklime; this change, which at present is accounted for by the volatilization of its water and carbonic acid, was by Meyer supposed to be owing to the combination of the acidum pingu with the calcareous base, and the consequent disengagement of its water; hence originated a caftic earthy salt soluble in water: if to this lime water, a mild alkali, be added, a decomposition takes place, the acidum pingu unites by preference with the alkali, making it caustic, while the calcareous earth combines with a portion of water, becomes insoluble, and is precipitated in the state of mild col. So far the theory of Meyer was supported by facts which, however equivocal and imperfect, had at least some plausibility. But, in his attempt to raise this caHydrate to the rank of an acid, and of a prime agent in chemical phenomena, he deviates into the wildest conjectures without the shadow of a fact in their support. The following are the chief
chief of the properties which he ascribes to it. It is a compound elastic subtile sub stance, analogous to sulphur, nearly approaching to the purest matter of fire or light, indecom posable, confining of a saline acid principle and fire, com and, capable of penetrating all veils when red-hot, and sensibly heavy. It has an afflicting force, and com bines by means of fire with calcareous earth and the alkalis, and with metals when in the state of calx; from its uniting with sulphur, oils, and calcareous earth, he infers, that the acid is united with something fat or oily, (hence its name acidum perspicuum) and this oil so far the/its properties as to prevent the acidity of its tafte, &c. Hence it is evident, that the properties of this imaginary substance are in part purely fictitious, and for the rest a mixture of dis cordant qualities selected from those of the pure alkalies, oxygen, and carbonic acid.


Acidum aurifaciunfum. See Sulphoric Ether.

ACTIA, in Ancient Geography, a little or small town in Arabia Felix, on the Persian gulf, from which, according to Pliny, (H. N. v. i. p. 338.) the Scirce Sabaii fet fail for India. This is a different place from Oeces, or Oecia.

ACILIS, an a district of Armenia, situate between Mount Taurus and the Euphrates, where it bends its course southwards towards Mesopotamia. Strabo, vol. i. p. 799.

ACILUS, Gallicius Marcus, in Antiquity, a confid of Rome, who distinguished himself by his military skill and brave way on several occasions, and particularly in the victory which he gained over Antiochus the Great, king of Syria, at the straits of Thermopylae. He built the temple of Piety at Rome, in consequence of a vow which he made before this battle.

ACINA, in Ancient Geography, a town of Africa, mentioned by Pliny H. N. vol. i. p. 345.

ACINACAE, the name of a people inhabiting Bactria.

ACINACES, in Antiquity, a kind of cutials or cem tera, in use among the Persians.

ACINACIFORM leaf. See Leaf.

ACINARIA, in Botany, a name given by some to the marab shrub-berries, or vaccinia palustris.

ACINASIS, in Ancient Geography, a river of Asia, at the southern extremity of Colchis, which discharges itself into the Euxine sea, between the Bathysea and the Isus.

ACINCUM, a city of Pannonia, the situation of which is not precisely known. Some suppose it to have been at or near Buda.

ACINI, in Botany, small grains or berries, growing in bunches, after the manner of grapes. The berries of the elder, privet, ivy, &c. are of this kind, and so called. Anatomists have called some glands of a similar formation, acini glandulosi.

ACINIFORMIS Tunica, the same with tunica vasa of the eye. It is also called acinosa tunica.

ACINIPPO, in Ancient Geography, a town of Batista, of which the ruins called Ruins de la Vige are to be seen near Arunda, in the kingdom of Granada.

ACINODENDRON, in Botany, the name given by Burman, in his Theaurus, to a genus of plants, afterwards called Melastoma. It is also the trivial name of a species of this genus.

ACINOS, stone or wild Basil. See Thymus.

ACINTLI, in Ornithology. See Quachilto.

ACINUS, in Botany, properly signifies the grape. It is also the name of the Staphyloma.

ACIOJA. See Acia.

ACIPENSER, in Ichthyology, a genus of fish of the order of Chondropterygi; the characters of which are, that the head is obtuse, that the mouth is under the head, recti ficd, and without teeth; that the four circles are below the snout, and before the mouth; that the aperture of the gills is at the side; and that the body is elongated, and angulated with many series of spiny or feby pro bances. There are five species, viz. A. Storius, or Sturgeon; A. Rythemus, or Strellet; A. Huns; A. Schilz; and A. Stellatus, or Koster.

ACIPHERAS, in Ancient Geography, one of the four cities of Phocis, on the river Pindus.

ACIPHYLLA, in Botany, a species of Lasipticum.

ACIRIS, in Ancient Geography, a navigable river of Italy, not far from the city of Herculea, mentioned by Strabo, vol. i. p. 405. now a rapid, irregular torrent, called Agri.

ACIS, in Entomology, a species of Papilio, with his edated wings, the lower part of the fore-wings being green, sprinkled with gold; the hinder golden, spotted with green and black; found in Burinam.

ACIS, in Geography, a town of France, in the department of l'Aube, on the river Aube. N. lat. 48° 25'. E. long. 4° 16'.

ACIS, in Mythology, a beautiful shepher of Sicily, the son of Ecorus and the nymph Simeathis; who, being beloved by Galatea, incurred the rage of Polyphemus, and had his brains dashed out against a rock by this giant. He was afterwards changed by Galatea into a river of the same name. The Sicilian authors say, that Acis was the name of a king, that reigned in this part of the island in a very ancient period; and, to this purpose, they allege an inscription found near the river Acis, Acis Cibello. He is said to have been slain in a fit of jealousy by Polyphemus, one of the giants of Etna; and thus they trace the origin of the fable.

ACIS, a river of Sicily, celebrated by the poets, viz. Theocritus, (Idyll. i. v. 69) Ovid, (Fasti, i. 6. v. 468) and Silius (l. xiv. v. 222) which flows from a cold spring at the foot of mount Etna, and runs into the sea at the distance of about a mile from its source. From the rapidity of the arrow, with which it purifies its course between verdant banks, its name is derived. Bochart, (Geog. Sac. l. i. c. 28. apud op. tom. i. p. 529. Ed. Villet.) deduces it from the Syrian ἀκις, acies, to boister, or to be fierce. Its water is clear, and so cold as to be dangerous to those who drink it; and never freezes, though it poises a degree of cold greater than that of ice. It is said to acquire a poisonous quality from the vitriol with which it is impregnated; though it was formerly celebrated for the sweetness and fulness of its waters; which, according to Theocritus, were always held sacred by the Sicilian shepherds.

"Quique per Ἀκιςας Ακις κατά οὐρανόν, ΕΤ ὕδαι γραματοι νεκρίδων περιπλεύτων".


This river is now called Il Fiume Freddy, and Acis, Iaci, or Chiari, according to the different Sicilian dialects. Antinouphini calls it Acinos. Acis is also the name of a hamlet at the mouth of the river. There are several places in this district that take their names from the unfortunate shepherd Acis; such are, Acis Aspinello, Acis Castrillo, Acis Terra, &c. Drydene's Tour, vol. i. p. 118.

ACISANTHERA, in Botany, a species of Rhytia.

ACITANI, in Ancient Geography, a people of Spain, supposed to be the same with the Lacetani of Pliny.

ACITANUS, or Acithius of Ptolemy, a small river of Sicily, now Bergh.
ACITLI, in Ornithology, the common Mexican name for the Columbae erithaca, or great cerulean Green, common to Europe and America, and called by authors the Lifer argentatus, or water heron.

ACKEN, in Geography, a bailiwick of Magdeburg, in Germany, to which belongs a town of the same name, situated on the Elbe. It formerly belonged to the dukes of Saxony, and was hence called Agra Saxonica. The revenues of the fivutches of this town are at present levied by the dean of the cathedral of Magdeburg; but the church was given in 1711, to the Camellines, Buffaloing.

ACKER Sound, lies north-east from the Naze of Norway, and north-west by west from the island of South Wolfgang. Sitter's Island is also west by north from Acke four leagues; and behind it is the small port of Grafwick.

ACKHMETCHID Gulph, is on the west side of the Crimea, and the sea through which ships pass to Precop, and the north-west part of the Black Sea. Its west cape is N. lat. 45° 34' and E. long. 52° 20'.

ACKLIN's Key lies about 50 miles south-east from Long island, or Yuma, one of the Bahamas islands, having Long Key twelve miles to the north-west; and on the south-east side a chain of rocks. N. lat. 22° 10'. W. long. 73° 30'.

ACKNOWLEDGMENT Money, a sum paid in some parts of England by tenants on the death of their landlords, as an acknowledgment of their new lords.

ACKWORTH, a small village near Pontefract, in the county of York, which deference mentions on account of the beneficent institution supported in it for the education of the children of the Quakers. The original projector of this institution was Dr. Fothergill, who promoted a subscription for purchasing, improving, and furnishing an appropriate building, and an estate of eighty acres of land; and who, by his will, endowed it with a liberal bequest. This institution accommodates more than 500 children of both sexes under the same roof, who are cunnified with all the necessary conveniences and comforts of life, properly clothed, and educated in every branch of knowledge, adapted to the situations in which they may be placed. It is conducted by a number of chosen guardians of ability, and of exemplary character, with a degree of order and decorum, which affords pleasance to persons of every description who occasionally visit it. The children are taught habits of regularity, of decency, and of respectful subordination to their superiors, of forbearance and affection to one another, and of reverence to their maker; and they are accustomed to that kind of silence and recollection, which was practised in some of the ancient schools of philosophy, and which give a peculiar and distinguishing character to the members of this society in the maturity of life.

ACLIDES, in the Roman military art, a kind of milifive weapon, having a thong fixed to it, by which, after calling it out of the hand, it might be drawn back again, Servius describes the acilde as full of spicule, or crenences. As it was formed with spikes, it would injure both where it struck, and when it was withdrawn. Each warrior seems to have been furnished with two. Voss. Etym. Aquin. lex. Mil. t. i. p. 14. Pitisc. Lex. Ant. t. i. p. 17.

ACLOWA, in Botany, the name of a plant common in Guinea, and used by the natives to cure the itch. They rub it on the body, as we do our ungents. Petiver accounts it a species of colutea, and has named it the Guinea sporiloide colutea, with leaves like the gum tragacanth shrub. Phil. Trans. No. 268. abr. v. iv. p. 2. p. 322.

ACME; the height or top of any thing. The word is Greek, signifies point, and is more specifically used to denote the height, or utmost vehemence of a disturbance.

Accordingly some infallition-writers have divided diseases into four states or periods: 1. Arche, the beginning or first attack: 2. anaesis, the growth: 3. aeme, the height: and 4. arame, which is the declension of the distemper.

ACMELLA, or ACHAMELNA, in Botany, a plant which grows in the island of Ceylon and Tenente, of which there are three species noted by botanists; two of which were formerly referred to the genus Verbeekia, in the Linnean system. It is commended in nephritic disorders, but very rarely used. It is the Splantbous Amello with ovate, ferrated leaves, a frant item, and radiated flowers. It became known in Europe by the letters of Hortus, addressed to the Royal Society in 1701. Phil. Trans. vol. xxii. p. 763.

ACMOIDE, in Ancient Geography, seven islands in the British sea, supposed by some to be the Scilly islands, but by others, with greater probability, those of Heland and Shetland near the Orkneys, on the coast of Scotland. Pliny, H. N. vi. i. p. 223.

ACMON, in Ancient History, the name of one of the Dactylid Idae according to Strabo, vol. ii. p. 726. Bryant says, (Mythology, vol. i. p. 513) that Acmon was a Cyclopian deity, under which title he was worshipped in Phrygia, whence the name of Acmonia. He was also revereued by the Amazonians, and there was a sacred grove upon the Thermodes called aemonum, and held in great repute. He is represented by Callimachus (Hymn. in Dian. v. 145.) as the tutelary god of Tyrs, an ancient city of Greece, whose towers are said to have been built by the Cyclopians.

ACMONIA, or in Peutinger's map Agmonia, in Ancient Geography, a town of Phrygia major, now in ruins. Cicero, pro Flacco, cap. 15. calls the inhabitants Acmonites, and the city Civitas Acomonita. There are many medals of this city in gold, bronze and silver. There was also a city of the same name, according to Tolemy, in Dacia upon the Danube, near the capital Sarmitz, which was the position of the Roman colony, called Ulphi Trogian.

ACNIDA, formed of a priv. and with, a nettle, Virginian hemp, in Botany, a genus of the dioica order, and pentandria class of plants, of the natural order of febride and airiples of Julliau, the characters of which are as follow: the calyx of the male is a five-leaved perianthium, and the leaflets are ovate, concave, acute, and membraneous on the edge; it has no corolla; and the stamens are five, capillary, very short filaments; and the anthers are vertical, bilocular, and forked each way; the calyx of the female is a many-leaved, linear, deciduous involucre; the perianthium is two-leaved, linear, very small and permanent; it has no corolla; the pistillum has a superior, ovate germen; the styles are five, long, reflex and pubescent; the stigmas are simple; the pericarpium is an ovate, compressed, many-angled fruit, furrowed, and covered with the succulent calyx; the seed is solitary, round and compressed. There is one species, viz. A. canadina, which is a native of Virginia, and some other parts of America, but seldom cultivated in Europe. It has little beauty, and is applied to no use. Martyn's Miller. In the Linnane system by Gemlia, it is a genus of the pentandria pentagynia class and order.

ACNUA, in Roman Antiquity, a measure of land about the quarter of an English acre.

ACO, in Geography, a town of Peru in S. America, in the jurisdiction of Guanuco. It is also a river of Africa, that rises in the mountains of Abyssinia, runs in the south-east direction, and discharges itself into the Indian ocean.

Aco, in Ichthyology, a name given to a fish found in the Mediterranean, called also aqua, jarachus and Jarachus.

ACOEMETAP, or ACOMETI, formed of a priv. and 1.
agnus, to lie down, or sleep in bed, a name given to certain monks in the ancient church, who flourished particularly in the 17th and 18th centuries, and who were thus called, because they had a service, performed, without interruption, in their churches. They divided themselves into three bodies, each of which officiated in its turn, and relieved the others; so that their churches were never silent, either night or day. The Stylists were also sometimes called acolytes. Wetstein (Proleg. N. T. vol. i. p. 10) adopts the conjecture of Casimir Oudin, that the Alexandrian MS. was written by an Acolyte, because it contains a catalogue of the psalms that were to be sung at every hour, not only on the day but also on the night. These monks are particularly described by Helyot in vol. i. c. 29, of his "Histoire des Ordres Monastiques," &c. in 8 tomes 4to. Paris, 1720.

There is a kind of acolytes still subsisting in the Roman church; the religious of the holy sacrament may be properly included under this denomination, because they maintain a perpetual worship; some or other of them praying before the sacrament, day and night.

ACOLA, in Ancient Geography, a town placed by Ptolemy in Media, on the borders of the Hyrcanian Sea.

ACOLA, Cala Bini, in Geography, the most southern cape or point of land of the island of Minorca, S.W. of fort St. Philip, or the entrance of Mahon harbour, seven or eight miles.

ACOLASTRE, in Geography, a river of France, which runs into the Loire, two leagues above Nevers.

ACOLCHICHI, in Ornithology, the Mexican name of a bird described by Nielemberg under the name of the Pentaphialus Indicus. It is the Oriolus plumicolor of Linnaeus. The acolchi of Seba is the Oriolus Nova Hispania of Gmelin, the Icterus Mexicana of Buffon, and the Mexican Oriole of Latham. Its specific characters are, that it is yellow: the head, throat, wing-quills, and tail are black; the greater quills of the wings are yellow at the tip, and the lesser are wholly black. This bird has a long yellow bill; and the tail and wings are ornamented with small feathers of a golden colour, which have a fine effect on the dark ground. Seba reckons it an American bird; and Gmelin refers it to New Spain.

ACOLCHUACAN, in Geography, one of the three imperial cities of the ancient kingdom of Mexico.

ACOLIN, a river of France, which runs into the Loire, two leagues below Decize.

ACOLIN, in Ornithology, the name of a bird of the partridge kind, common in the Spanish West Indies. It is no larger than a starling; its legs and feet are of a pale greenish colour, and its toes very long; its back is yellow, and somewhat long; its head small; its breast and belly are white; its sides are spotted with brown, and its back and tail of a dusky yellow brown; its tail is very short, and both that and the back have some black spots, and some narrow streaks of white. It frequents the sides of lakes, and is suppos'd to feed on flies, worms, and other insects, which are found about watery places. It is a tolerably well-tailed bird.

ACOLUTHI, or ACOLITHI, in Antiquity, a term applied to such persons as were ready and immovable, in their resolutions.

The word Acolithi is compounded of the privative a; and λίθος, stone, way; and implies their firm perfiling in their way or course.

For this reason, the Stoics were called acolythi; because nothing could induce them to abandon their principles or alter their purports.

Among the Ecclesiastical Writers, the term acolythus, or acolythos, is peculiarly applied to those young people, who in the primitive times aspired to the sacerdotal; and for that purpose, continually attended the bishops: which affection occasioned their being distinguished by the appellation.

In the Roman church, acolythi were of longer continuance; but their functions were different from those of their first institution. They were such as had only received the first of the four lesser orders, whose business it was to light the tapers, carry the candelsticks, the incense-pot, and prepare the wine and water.

At Rome there were three kinds of acolythi: viz. palatini, who waited on the pope; fluminarii, who waited in churches; and regionarii, who, together with the deacons, officiated in other parts of the city.

ACOLITHI, or ACOLITHUS, was also a title in the Grecian empire given to the captain or commander of the Varangii, a body of guards appointed for the security of the emperor's palace.

ACOLITHUS, Andrew, in Biography, was an arch-deacon, and professor of the Oriental language, at Breflau, his native city, and member of the academy of Bern. He published, in 1682, a Treatise De Aquis Amariis, in 4to. At Leipzic he published, in 1685, a Latin translation of the Armenian version of the Prophecy of Obadiah. He died at Breflau in 1704.

ACOLYTHIUM, in the Greek church, denotes the office, or order of divine service.

The same name is also given to the prayers, ceremonies, hymns, and the like, wherein the Greek service is composed.

ACOMA, and ACOMACH, in Geography. See ACO MA and ACCOMACH.

ACOMAS, in Botany. See Homalium.

ACOMINATUS, Nicetas, in Biography, secretary to Alexius Comnenus, and to Isaacus Angelus, who wrote a history from the death of the former in 1118, where Zonaras ended his, to the year 1203, which is much approved.

ACON, an instrument used in the ancient exercises, like the discus.

ACON gave name to an ancient order of knighthood, who were afterwards united to the knights Hospitallers.

ACONE, in Ancient Geography, a small town of Bithynia, near Heraclea.

ACONCAGUA, in Geography, a village or town of Chili, in S. America, which gives denomination to a fertile province at the foot of the Cordilleres, situated on a river of the same name, that discharges itself into the Pacific Ocean. N. lat. 33°, W. long. 75° 30'.

ACONCORA, in Botany, a name given by the natives of Guinea to a plant, growing wild with them, and in great esteem for its virtues in the small-pox. They give an infusion of it in wine. The leaves of this plant are opaque, and as fluff as those of the phillipery; they grow in pairs, and stand on short foot-stalks; they are small at each end and broad in the middle; and the largest of them are about three inches in length, and an inch and a quarter in breadth in the middle. They somewhat resemble those of our bay. They are of a dusky colour on the upper side, and of a pale green underneath.

ACONE, in the Natural History of the ancient world, the name of a stone used as a whetstone, and for several other purposes; but more usually known among the Romans by the name coticula. It signifies also a mortar for the purposes of levigation.

ACONITE, in Botany. See ACONITUM.

ACONITE, Winter. See HELLEBORUS.

ACONITES, in Ancient Geography, a people placed by Strabo, (tom. i. p. 344) in the mountains of the island of Sardinia.

ACONITI,
ACONITI, *aconitum*, is an appellation given to some of the ancient *Atillaex*, but differently interpreted. Mercurialis understands it of those who only anointed their bodies with oil, but did not smear themselves over with dust, as was the usual practice. Mr. Dutert will have it to signify those who conquered cally without dust, q. d. *atillaex, aconitum*, with little trouble.

ACONITUM signifies not pilfered, and is a name given to veolves not fixed within.

ACONITUM, *aconitum*, Wolf’s-bane, or Monk’s-hood, in Botany, a genus of plants of the *irigina* order and *polyandra* class, and pertaining to the natural order of *multiflora*. Some have derived its name from Acon, a city of Bithynia, where it grew in great abundance. Pliny ascribes its etymology to *acon*., a whetstone. But the most probable origin of the appellation is *aconita* without dust; because this plant grows on rocks destitute of soil, agreeably to the description of Ovid;

"Quo qua in ascendit, duras vivacia cætus,
Agrestes Aconita vocant.
"

The characters of this genus are, that it has no calyx: the corolla consists of five unequal petals, opposite in pairs; the highest being helmet-tubed, inverted and obtuse; the two lateral broad, roundish, opposite and converging; and the two lowest oblong, and bending downward: the nectaries are two, concealed under the first petal, futilous, nodding, with mouth oblique, and tail recurved, fitting on long pubescent peduncles; in the same circle with the nectaries there are five little, very short, colored scales: the stamens are futilous and small: the pistil has three (five) oblong germs, ending in styles the length of the staminal; the filaments are simple and reflex: the pericarpium has as many capsules as the styles, ovate-futilous, straight, one-valved, gaping inward: the seeds are many, angular and wrinkled. The species, enumerated and described by Prof. Martyn in his edition of Miller’s Dictionary, are as follow: 1. *A. hyacinthum*, great yellow monk’s-hood, or wolf’s-bane, of which there are two varieties, viz. that of Linneus with a bluish ash-coloured flower, and the *aconitis alatimium* of Miller. The common form grows upwards of three feet high, but this, in gardens, is above four feet; its leaves are also broader and smooth, and the spikes of the flowers are longer. They both flower about the middle of June, and in a moderate season continue to blow till August. In Sweden it is reckoned among the earliest spring flowers. The mountains of Sweden, Lapland, Switzerland, Germany, Austria, Carniola, Italy and Siberia produce it in a wild state; and it was cultivated in this country by Gerard in 1556. A decoction, or powder of the root is used for destroying flies and other insects; but it is eaten in a province of Sweden without injury. It is milder than some of the other species, and eaten by goats and hares. The ancients believed that it was fatal to those who slept under it; and they dipped their venomous arrows in the juice of it. See Smith’s *Linnei Flori. Lappon. p. 187.* 2. *A. japonicum*, or Japanese monk’s-hood, is a native of Japan, where it is called *Sas Hufa*. 3. *A. nectarus*, common monk’s-hood or wolf’s-bane, is found wild in Sweden, Switzerland, France, Germany, Austria, Carniola, Italy, Siberia, and Virginia; and was cultivated here in 1756 by Gerard. It blows in August, and would merit a place in every garden, if it were not for its noxious quality, which renders it dangerous to children and ignorant persons. There are two or three varieties with white, rofe-coloured, and variegated corollas. The forms which have blue flowers are more powerful than those with yellow or white flowers. The variety called by Miller *pyramidale* is the most common in English gardens, being preferred on account of the appearance of its long spikes of blue flowers, which are above two feet long. The plant rises to the height of near four feet, is hardy, and will grow in any soil or situation, and as it multiplies greatly by its roots, it has been admitted into most gardens and plantations of shrubs. It flowers in May and June; and the seeds ripen in September. 4. *A. pyramidalis*, Pyrenean or fennel-leaved monk’s-hood, grows wild on the Pyrenees, and also in Tartary and Siberia, and was cultivated with us in 1759 by Mr. Miller. It grows to the height of about four feet, and the spike nodas before the time of flowering, which in our gardens is July. This species may be admitted among shrubs, to which children have no access. The four preceding species of *aconitis* have three capsules, the following have five. 5. *A. aurantiacum*, salutaris monk’s-hood, as it has been erroneously called, has a root consisting of from two to four angular, fleshy, bulbs, and a stem which rises from a foot to 12 inches in height. The flowers, which continue in beauty from the middle of August till the middle of September, though not so large as some of the other forms, are of a sulphur color, and make an agreeable appearance in the borders of the flower garden. This species grows naturally in the Pyrenees, the Alps, Austria, Siberia, &c. and was cultivated here in 1556 by Gerard. There is a variety of this with a white flower. 6. *A. variagatum*, variegated or small blue monk’s-hood, is a native of Italy and Bohemia, and was cultivated here in 1752 by Mr. Miller. It flowers at the end of June, and seldom grows to a greater height than two feet, with spikes of flowers much shorter than those of the first form: the corollas change from variegated to plain. 7. *A. album*, white wolf’s-bane, was found by Tournefort and Rivard in the royal garden of Paris. Mr. Miller cultivated it here in 1759, and says, that he has seen it upwards of six feet high, and he characterizes it by its tall stem, palmate leaves, and large white flower. 8. *A. cammarum*, purple monk’s-hood, has flowers of a paler blue, a much longer helmet, and a shorter raceme than the *A. nectarus*. Its stem is also taller, rising even to six feet. This species is found wild in Switzerland, Austria, Sturia, Piedmont, &c. and was cultivated in 1748 by Mr. Miller. Haller found it with a white flower, and others have observed it in Switzerland with flowers of a pale blue, variegated with white. The variety named by Mr. Miller. *A. alpinum*, will grow in good ground to the height of five feet, with large flowers of a deep blue colour. 9. *A. neocinatum*, American monk’s-hood, is a native of Pennsylvania, with leaves approaching to those of the third form, and blue flowers resembling those of the last. It was cultivated in 1770, by Mr. James Gordon. In the last edition of Linneus by Gmelin, this genus comprehends 14 species; the five following being added to those above recited, viz. nana, *fischeriana*, *tuticarum*, *nonstopium*, and *cercaea*. Culture. All the sorts of monk’s-hood are hardy perennial, require little attention, and as they bear handsome spikes of flowers, are desirable plants for shrubberies and wilderness quarters, where they are guarded from the access of those who are unapprehended of their pernicious qualities. They are propagated by seeds, sown in autum, in a shady situation. The ground should be kept clean from weeds, and the plants should be watered in dry weather, till they are fit for being transplanted into shady borders, at the distance of 1.5 inches. If they are watered till they have taken root, they will require no other care, besides being kept free from weeds till the following autumn, when they may

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may be removed to the places where they are to remain. The stalks should be cut down in autumn, after they have done flowering. The common monk's-hood will grow under the shade of trees, and increase by means of its creeping roots. The other sorts may be propagated in the same way; but they will not thrive under the drip of trees, though they delight in shade.

Quantities. Most of the species of aconite have been deemed poisonous. The patients were so surpried at their pernicious effects, that they were afraid to touch the plants; and hence sprang many superstitious precautions about the manner of gathering them. Theophrastus relates that there was a mode of preparing the aconite in his days, so that it should only destroy at the end of one or two years. But some have questioned whether the aconite of Theophrastus, Dioscorides, Pliny, and other antient writers be the same with ours, or should be referred to the genus of Ranunculus. Vid. Reinhold, Diff. § 1. It is confidently afirmed, that the huntmen on the Alps, who hunt the wolves and other wild animals, dip their arrows into the juice of these plants, which renders the wounds occasioned by them mortal. A decoction of the roots has been used to kill bugs; and the powder disguised in bread or some other palatable vehicle has been employed to destroy rats and mice. The A. napellus, or common monk's-hood has been long known as one of the most virulent of all vegetable poisons. Linnaeus says, that it is fatal to swine and goats, but does no injury to hores that eat it dry. He also informs us from the Stockholm act, that an ignorant surgeon died in consequence of taking the fresh leaves, which he preferred to a patient. The effluvia of the herb in full flower have produced fwooning fits and a temporary los of sight. The leaves and flowers of this plant, used as fadl instead of celery, have proved fatal in feveral instances. But the moft powerful part of the plant is the root. Matthiolus relates that it was given by way of experiment to four condemned criminals, two at Rome in 1524, and two at Prague in 1561, two of whom foon died, and the other two, with great difficulty, were recovered. The juice applied to the wound of a finger, not only produced pain in the arm and hand, but cardingia, anxiety, fene of suffocation, syncope, &c. and the wounded part fpleaded before it came to fuppuration. Dodonaeus fays, that five perftons at Antwerp died in confecuence of eating it by mistake. The effects of this plant are convolutions, giddiness, infancy, violent evacuations, both upwards and downwards, faintings, cold sweat, and even death itself. Nevertheless it has been used for medicinal purposes. The Indians are faid to use acornis, corrected in cow's urine, with good success against fevers. There is one species of it which has been deemed an antidote, to those that are poisonous, called oulera, and thofe that are poisonous are called thor. The taste of the root of the species denominated amboza, is fweet, with a mixture of bitterness and acrimony, and the smell is pefiant. It purges violently when fresh, but loses its qualities when dried. This is poifonous as well as the others, thogu fhortly after the daily, and is difputed in the prefent practice. The firit perfon who ventured to introduce the common monk's-hood into medicine was Dr. Stoeck; though it has been fuppofed by Haller and Bergius from the taste and figure of the plant which he used, that it was not the napellus but the A. cammarum, which much refembles it. But others have since maintained, that Stoeck's plant was the A. napellus. He found that the extract given to the quantity of 10, 20, and even 30 grains, excited a sweat without inconveniently, and by perfing it in the use of it, great relief was obtained in fixed rheumatic and arthritic pains, feirrous glandular tumors, venereal nodes, anerylfores, amaurosis, and other similar complaints. Other practitioners, after the publication of Stoeck's Extrains in 1762, have experienced the fame good effects in some degree, and the Edinburgh college has received the extract as an officinal. In this, as in all the other medicines of fuipicious and dangerous properties, it is most expedient to begin with very small doses, and increafe them as they can be borne. Stoeck recommends two grains of the extract to be rubbed into a powder, with two drams of sugar, and to begin with 10 grains of this powder two or three times a day. The extract is often given from one grain to ten for a dufe; and some have confiderably increafed the quantity. Instead of the extract a tincture has been made of the dried leaves, macerated in fine times their weight of spirits of wine, and 40 drops given for a dose. Martyn's, Miller's Dict. Lewis's Mat. Med. 1784, Woodville's Med. Bot. vol. i. p. 19. Murray's Appar. Med. vol. iii. p. 6. &c.

ACONTIA, in Antient Geography, a town of Spain, which Strabo (Tom. 2. p. 228.) places near the Duria, and calls a city of the Vaccei.

ACONTIAS, a name used, by some authors, for a fort of comet, or meteors, whose head appears round or oblong, and its tail very long and slender, resembling a javelin.

It takes its denomination from a serpent thus called, frequent in Calabria and Sicily; where it is also named jutetone (from fugitiva, an arrow) by reason of its flying at passengers like an arrow; in order to which, it winds itself up a tree, to spring thence with the greater violence. For the like reason the Greeks call it acontias, of acornis, a dart, or arrow.

It differs from the xiphias, in that it is longer, and more like a dart; and the other is shorter and broader in the middle.

Acontias, in Zoology, the name of the Angus Juculus, a species of serpent, called also JACULUM, or the dart-snake, from its manner of vibrating its body in the manner of a dart. Bellonius found one of these in the island of Rhodes, which he described in this manner: it is about three hands-breadth long, and the thickness of one's little finger; its colour is a milky grey on the back, variegated with small black spots, like fo many eyes; and on the belly it is perfectly white; the neck is wholly black, and from that two milk-white streams run all the way along the back to the tail; the black spots also are each surrounded with a small circle of white. It is found in Egypt and Lybia, and in the islands of the Mediterranean. It is also called cnebroei, and cnebroae. Ray.

ACONTISMA, in Antient Geography, a city of Macedonia, between the Strymon and Nestus.

ACONTIUM, in Antient Writers, a kind of Grecian dart, or javelin, somewhat resembling the Roman fium.

ACONTIUS, or ACONZIUS, JAMES, in Biography, a celebrated philosopher, civilian and divine, born at T creat the 16th century. He embraced the protestant religion, and was favourably received in England by queen Elizabeth, who granted him a pension as an engineer, which he respectfully acknowledges in the dedication of his well-known work, "The Stratagem of Satan." This treatise was first printed at Bafil in 1565; and the author died in England. Another edition of it was published in the same city by James Grafferus in 1610; at Amderam in 1674, and a French translation was published in 1619, and reprinted at Delft in 1624; in the above edition is inserted Acontius's letter to Wolfa, "De ratione edendorum librorum," containing excellent advice to authors. He wrote also a treatise.
treatise on method, intitled "De Methodo, sive de Recta
avigilantiarum tradendorumque artum et scientiarum ra-
tione;" which was published at Basle in 1558, and infected
in a collection of dissertations, "De Studiis bene inlu-
tuendi," printed at Utrecht in 1658; an Italian work on
fortifying cities, translated by himsclf into Latin, but never
published; and a treatise of Logic, which he did not live to
finish. His religious principles differed from those of Cal-
vin; and he was an avowed friend to toleration. He has
been charged with scepticism in theology, and referred by
Izaac Junius, minister of Delft, to the same clafs with So-
cinus and the Remonstrants, who represents him as a per-
son detritus of reducing all sects into one, and including
them in the same ark, as Noah preferred all animals in his,
thoough they lived on different food. Arminius says of him,
"Acantis est divinum prudentia, ac moderationis lumen;" and
Amelius gives him this character. "Iedem Acantis est
enim verus divini, qui samento ecclesiae anglicane

Acontium, in Ancient Geography, a city of Pelopon-
nesus in Arcadia, which derived its name according to Pa-
finas, from Acontus, the son of Lycean. There was
another town of the same name in the island of Euboea.

ACONTIUS Monc, a mountain of Beocia in Greece,
in which was built the town of Ochonomes. Strabo.
T. i. p. 637.

ACOFTAN Island, in Geography, lies north-east from
the point of Onenak, or the south-west point of the con-
tinent of America; and between these is a channel.

ACOPA, in Botany, a name given by Dioscorides, and
some other authors, to the MEXANTHEM triphyllata, or BUCK-
bean.

ACopa, derived from a privative, and meat, waving,
in Medicine, is also used to denote remedies against the
ill consequences proceeding from latitude, occluded by
violent labour, excessive, or the like; such as tenuons,
tumors, pains in the bones, &c. some being of a warm, and
others of a mollifying nature. But the title is improperly
applied to medicines, as none are adapted to this purpose,
except by a general quality. Cullen's Mat. Med. vol. i.
1768.

ACOPIS, or Acopos, a substance classed by Pliny among
the genus of which he gives the following account. Acopos
resembles Natron, is porous, and stained with golden drops.
Oil that has been boiled upon this, is used as an ointment
to prevent the effect of fatigue. Pliny, Nat. Hist. xxxvii. 54.

ACOPOS, a plant mentioned by Pliny, said to be the
same with the ANAGIRS of Dioscorides, which Gerard
says is the bean-trefoil; it signifies also LABURNUM.

ACOR signifies fumace or scroxy.

ACORACA, in Ancient Geography, a town of CHALY-
BOXISTES, a pretecture of Syria.

ACORDINA denotes Indian turky.

ACORIS, a small town of Egypt, in the nome of Cy-
nopolis, in the province of Heptanomia.

ACORN, in Natural History and Agriculture, denotes
the fruit of trees of the oak kind.

The acorn, according to Dr. Grew, is the nut of an oak,
with this only difference, that besides the cup it stands in,
it has only a leathern or parchment cover, instead of a
shell. And hence it is, that whereas the kernel of a nut is
sweet, that of an acorn is of a very rough and bitter taste:
the aspher parts of the sap, which in a nut are drained off
into the shell, being here imbibed by the kernel itself.

Writers on husbandry give directions concerning fermaries
or nurseries of acorns, and the method of propagating, by
sowing or planting them. For timber, those acorns are to
be chosen as seed, which are most solid and heavy, and not
those which are the largest. See OAK.

In the Phil. Trans. vol. viii. p. 75, we have a curious
and important memoir by John Ellis, Esq. containing a
method of preferring acorns in bees-wax for a whole year,
in a flake fit for vegetation, by which other seeds may also
be preferred; and such as are valuable may be brought from
the East Indies, for the purpose of planting them in other
countries. See Seed.

Acorns were the food of the first ages; but when corn
was cultivated, acorns were neglected. They are of little
use with us, except for fattening hogs and other cattle,
and poultry. The hogs that are fattened by them will be sub-
tect to coniplication, and the diseas called the garget, unless
they are given sparingly, and mixed with some laxative subs-
fances; and, during the use of them, the hogs should be
allowed to run at large; for if they are confined to the flye,
they will not grow fat with this kind of food. Among the
Spaniards, the acorn, or GLANS thericae, is said to have long
remained a delicacy, and to have been served up in the form
of a dessert. In dialects, acorns have been some times dried,
ground into meal, and baked as bread. Bartholin relates,
that they are used in Norway for this purpose. The inhabi-
tants of Chio held out a long siege, without any other food;
and in a time of scarcity in France, A. D. 1769, they recur-
ted to this food. But they are said to be hard of diges-
tion, and to occasion head-achs, ventihties and colics.

In Scotland, however, many instances occur, in which they
have supplied a salutarv and nutritious food. With this
water they are previously boiled in water and separated
from their hulks, and then dried and ground; and the powder
is mixed with about one half of the third part of corn-flour.

A decocion of acorns is reputed good against dysenteries
and colics; and a purgative of them is said to be useful in
immoderate fluxes of the menses. Some have recommended
the powder of acorns in intermitent fevers; and in France,
they mix it with warm ale, and administer it for pro-
cucing a sweat in cafes of the erysipelas. Acorns roasted
and bruised have refrained a virulent diarrhce. For other me-
cial uses to which they have been applied, see Murray's
Appar. Med. vol. i. p. 166.

From some late reports of the Academy of Sciences at
Peterburgh, we learn that acorns are the bell substitutive to
coffee that has been hitherto known. To communicate to
them the oily properties of coffee, the following proces is
recommended. When the acorns have been toasted brown,
add fresh butter in small pieces to them, while hot in the
ladle, and stir them with care, or cover the ladle and make
it that the whole may be well mixed: The acorns of the
holm oak are formed at Venice into cups, about 1 inch in
diameter, and somewhat less in depth. They are used for
dressing leather, and, instead of galls, for dying wooden
cloth black.

ACORN, in Sea-language, denotes a little ornamental piece
of wood in the shape of a cone, fixed on the top of the
spindle on the main-head, above the vane, to keep it from
coming off the spindle in a whirlwind, or when the ship
leans much upon one side under sail.

ACORN-shell. See LEPAS.

ACORUS, derived from κόρος, the pupil, because it was
considered good for disorders of the eye, Calluna Aroma-
tiacata, Sweet Flag or Sweet Rush, in Botany, a genus of the
monogynia order, and hexandria class of plants, and
b elonging to the natural order of pipirite. The characters
are, that the calyx is a cylinb, simple spadix, covered
with sphiules, without spatha or perianthium; the corolla
is of six petals, obtuse, concave, lofe, thicker at the
top,
top, and in a manner truncate: the stamina are thickish filaments, somewhat longer than the corolla, and the anthers are thickish, twin, terminal and adnate; the pistillum is a gibbous germ, rather oblong, and of the length of the stamina; without style; the stigma is a prominent point; the pericarpium is a short triangular capsule, attenuated to both ends, obtuse and three-celled: the seeds are many and ovate-oblong. There are two species, 

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A. vulgaris, European sweet root, sweet smelling flag, or calamus aromaticus, and the Veron fii Africannus, Indian sweet root, or calamus aromaticus. The common calamus aromaticus is sufficiently distinguished by its long lword-shaped leaves, resembling those of the flag, but narrower, of a brighter green, and yielding, when broken, a strong aromatic scent; and also, by its oblong cylindric spike of flowers, proceeding from the side of the stem at the edge of the leaf, which spike is generally single, sometimes double, and more rarely triple and quadruple. It grows naturally on the banks of rivers, and in shallow flowing waters; and is found in many parts of England, on Hounslow-heath, near Norwich and Lynn in Norfolk, near Cambridge, in the Avon, near Perkshire, and in many places of Cheshire, &c.; but it is more plentiful in the flowing waters of Holland, and is common in many other parts of Europe. The Indian calamus, which grows not only in marsh ditches but in more elevated and dry places in Malabar, Celeon, Amboyna, and other parts of the East Indies, differs little from the European, except that it is more tender and narrow, and of a more hot and pungent taste. 2. A. graminaceous, roots long, sweet root, or Chinese sweet grass, has the roots in tufts, with a few thread-like fibres. The whole herb has an aromatic smell when bruised, much resembling our English sweet flag, from which the present species is distinguished by the shortness of that portion of its stalk, which is above the papex, as well as by all its parts, except the florets, being five times smaller than in that plant. It is probably a native of China, and cultivated for the sake of its smell, in pots near the habitations of the Chinese, whence Mr. Aiton obtained it in 1786. It flowers in the spring.

Culture. The sweet flag will succeed very well in a garden, if the ground be moist, but never produces its spikes unless it grows in the water. It loves an open situation, and will not thrive well under trees. The flowers appear towards the end of June, and continue till August. In a proper situation it will increase by its creeping roots. The Chinese sweet grass must be kept in a dry stone, without any great degree of heat.

Medicinal Properties. The dried roots of the calamus aromaticus are commonly imported from the Levant, though those of our own growth are equally good. The best are those which are greenish without, and reddish within; the pulp white, and taffe bitter. They have a strong aromatic smell, and a warm pungent bitterish taste; and their flavour is much improved by drying. The powdered root might supply the place of foreign spices, and indeed it is the only native aromatic plant of northern climates. It is carminative and stomachic, and often used as an ingredient in bitter infusions. But it communicates a nauseous flavour to these infusions; and Neumann observes, that its agreeable flavour, as well as distinguishing taste, are owing to an essential oil; the residue after distillation having a nauseous flavour unlike that of the calamus. It appears that water is the most perfect menstruum of the bitter matter, as rectified spirit is of the aromatic, and the smell of the calamus is covered or suppressed by spirit. The tintures in both menstrua are of a yellow or brown colour, as they are less or more saturated.

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The root is an ingredient in the mithridate and thyrene of the London pharmacopoeia, and in the aromatic and flowery tinctures, and compound arum powder, of that of Edinburgh. The Turks candy it, and regard it as a preservative against contagion. It is also said that it has cured agues, when the Peruvian bark has failed; and it has been recommended in Vertigo, proceeding from a vitiated humour. Some have pretended that it is efficacious in febrifugal and hemorrhagic complaints, to which little credit will be given, and much less to its axilipharmic power. The preparations of it, enumerated by Murray, are a dry confection of the roots, a distilled water and oil, a spirituous and aqueous extract, and the elixir vitriolic and vitriolic Myrsinum. The leaves have a sweet fragrant smell, resembling that of the roots, but weaker. No cattle whatever will eat any part of the plant. Martyn's Miller. Lewis's Med. ed. Woodville's Med. Bot. vol. iii. p. 473; Murray's App. Med. vol. v. p. 39.

ACORUS, or BLUE CORAL, in Natural History. The true acorus of this kind is very scarce: some of it, however, is found on the coasts of Africa, particularly from Rio del Red to the river of the Camarones. This coral is part of the merchanize which the Dutch trade for with the Camarones; that of the kingdom of Benin is also very much esteemed. It grows in form of a tree on a rocky bottom. Acrorus is also a name for the greater galangal root.

ACORUS Adulterus, in the Materia Medica, the name of the root of the iris fatae palustris, or common yellow water-flag-flower.

ACOSTA, Gabriel, in Biography, a canon and preceptor of theology at Coimbra, who died in 1616, and whose large Latin commentary on part of the old testament was printed in fol. 1641. Lugd. Bat.

ACOSTA, Joseph, a celebrated Spanish author, born at Medina del Campo, about the year 1540. He was a missionary and provincial of the Jesuits in Peru, and died at Salamanca in 1600. Before his "Natural and moral history of the West Indies," first printed in Spanish in 8vo. A.D. 1591; and printed in French in 1600: he also wrote a treatise "De Procuranda Indorum Salute," 8vo. Salam. 1588, "De Christo Revelato," 4to. Rom. 1599, and "De vera Scripturis interpretandi ratione," in the commentary of Menochius, &c. The decreals of the council of Lima are also ascribed to some persons to this author. Acosta says Dr. Robertson, (Hist. Amer. vol. ii. p. 459.) is the first philosopher who endeavoured to account for the different degrees of heat in the old and new Continents, by the agency of the winds which blow in each. This theory was adopted and improved by M. Buffon.

ACOSTA, Uriel, was born at Oporto near the close of the 16th century. Having been educated in the Roman religion, though descended from one of those Jewish families which had submitted, as it were by constraint, to Christian baptism; he continued in the profession of it till the age of 25 years. His mind, however, had been perplexed by doubts previous to this period, in which he became treasurer in a collegiate church. At this time he directed his attention to the books of Moses and the Prophets, and the result was a conviction, that Judaism was the true religion. Fearing openly to profess it during his continuance in Portugal, he determined to resign his place, and embarked for Amsterdam with his mother and brothers, whom he had instructed in the principles of the Jewish faith. In this new situation they became members of the synagogue, and were circumcised according to the Jewish custom; and he changed his name of Gabriel for that of Uriel. He soon perceived that the Jews did not conform, either in their
their rites or morals, to the law of Moses; and disapproving of their conduct, he avowed his sentiments, and incurred the resentment of the chief of the synagogue. By them he was excommunicated and forbidden to hold any intercourse even with his own brothers. In these circumstances he wrote a book in his own justification; in which he endeavours to shew that the rites and traditions of the Pharisees are contrary to the writings of Moses: and he was soon led to adopt the opinion of the Sadducees, from a peroration that the functions of the Jewish law related merely to the present life. Acosta was reputed an ascetic, and became an object of general odium and persecution. With the concurrence of the magistrates of Amsterdam he was thrown into prison; all the copies of his work were seized, and he was fined 300 guilders. His scepticism increased, and he proceeded to think that the Mosaic law was a political invention. With these ideas he hastily determined to forsake his connection with the Jewish church after having been 15 years excommunicated, recanted what he had written, and subscribed what was enjoined. Accused by his nephew of not conforming to the laws of Moses in his private conduct, he soon found that the phylarchous deputation of principle was of little avail; he was summoned before the grand council of the synagogue, and again expelled from their communion.

After living in wrecks and misfortunes for seven years, he declared his purpose of submitting to the sentence of the synagogue; and contrary to the expectations which he had been encouraged to entertain, he underwent a very severe penance. After making a public recantation, and a very humiliating acknowledgment of his offence, he was stripped to the waist and received 30 lashes with a whip. He was then abjured from the excommunication, and laying himself down at the door of the synagogue, all who came out walked over him. This account is extracted from his treatise, intituled, "Exemplar humanae vitae," published and refuted by Limborch, in his "Amica Collatio cum erudito Judaeo de vitate religiosi christiani." This treatise he is supposed to have composed a few days before his death.

Having failed in his attempt to kill his principal enemy, he put an end to his own life with a pistol in 1647, according to some, but as others say in 1640. Such was the termination of a life disgraced, not by the change of sentiments, in consequence of inquiry and conviction, but by a want of integrity, and by a mean and daillardly avowal, for purposes of fame and interest; of principles which he did not believe.

Gen. 45:11. ACOUSTAN, in Geography, a mountainous island in the North Sea, between Asia and America, observed by Capt. Cook.

ACOTLEDONES, in botany, denote seeds without lobes, and of course when they vegetate, they produce no seminal leaves.

ACOUEZ, in Geography, the name of an Indian nation in Canada.

ACOUS, the principal, though small town, in the valley of Ape and county of Bear in France. Near this place are several cold springs, particularly those of Escoft. N. lat. 43° 5′ E. long. 0° 50′.

ACOUSMATICh from acous, to hear, an appellation given to such among the disciples of Pythagoras, as were still under the probation of five years. They are also called by Latin writers acoustici. The acousmaticus stood opposed to the mathematicus, who were initiated into the secrets of science; and the acousmatic philosophy to the mathematicus. These distinctions corresponded to the exoteric and esoteric. To pertons of this class, it was sufficient to appeal to the authority of Pythagoras, "Ams 13:8, ipse dixit," which decided every dispute. Some have denied the appellation of Pythagoreans to be due to the acousticians; because many of these had their learning, not immediately from Pythagoras, but from Hippasus, who, according to some, was of Crotona, but according to others, of Metapontum.

ACOUSTIC, formed from acous, to hear, denotes in general any thing that relates to the ear, the sense of hearing, or the doctrine of sounds.

ACOUSTIC Duct, in Anatomy, is applied to the external passage of the ear called also STATUS audiovis.

ACOUSTIC INFLUENCES, or Auricular tubes, are such as are adapted to supply the defect of hearing. See also DEAFNESS AND TRUMPET.

ACOUSTIC Nerves. See AUDITORY Nerves, and INNER.

ACOUSTIC VIBRATIONS, in the ancient theatres, were a kind of veils made of brass, shaped, as some have said, like a bell, which being of all tones within the pitch of the voice, or even of instruments, rendered the sounds more audible, so that the actors could be heard through all parts of the theatres, which were even 400 feet in diameter. Vitruvius. The acoustic vales, mentioned by Vitruvius as harmonically tuned, and placed in different parts of the ancient theatres, have been tried in the Opera-house at Turin, and other parts of Italy; but without the effect expected from them of augmenting the tone of the human voice, or of the instruments to which they were tuned.

ACOUSTICS, or Acoustic Medicines, are remedies against the impecunions and disorders of the ear, or of the sense of hearing. Such general terms as acoustics, says Dr. Cullen (Met. Med. vol. i. p. 163,) serve to mislead rather than instruct, and should, therefore, never be employed.

ACOUSTIC is that branch of general science which illustrates the origin, propagation and perception of sound. Some writers have divided acoustics into acoustics, which explains the properties of those sounds that proceed directly from the resonant body to the ear, and echo-acoustics, which treats of reflected sounds. Sound originates in the percussion and vibration of the parts of an elastic substance; and it is transmitted by means of the elasticity of the air, or of some other more subtle medium, in a similar manner. How it is produced and how it proceeds, and with what velocity it proceeds, are subjects of discussion which will be particularly investigated and explained in their proper places, under the article Sound. The reverberation of sounds will be illustrated under the articles Echo, Trumpet and Whispering places. For the manner by which they impress the organs of hearing; see Ear and Hearing. See also CHORD, PHONICS, STRING, VIBRATION, and VOICE.

Acoustic is properly the theoretical part of Music: it is that which gives, or ought to give, reasons for the pleasure which we receive from harmony and melody, which determines the relation of harmonical intervals, and which discovers the affections or properties of vibrating chords, &c. Roussel, For an account of the amusing contrivances, connected with this branch of science, see EOLUS'S Harp, Armornica, Communicative BUSTS, Automatous Harpsichord, Solar Sonatas, Convertible STATUS, and Versatile Symphony. See also Hooper's Recreations, vol. ii. p. 202, &c.

ACOS, in Geography, a small town at the foot of the Pyrenees, in the department of Arriege, and late province of Foix in France, and so called from its hot waters. N. lat. 43° 42′ E. long. 1° 34′.

ACOS, or DAX, Aqua Tarsellina and Aqua Augusta, is also the name of a city of France, in the viscounty of the same
fame name, and in the district of Auribat, on the river Adour. It is a bishop's see. In this place are six convents, one college and an hospital. In the neighbourhood are warm baths. N. lat. 43° 47', E. long. 1° 8'.

ACQUA, a small place in Tuscany, noted for its hot baths. N. lat. 42° 45'. E. long. 11° 12'.

ACQUA della Fico, a town of Italy, in the kingdom of Naples and province of Calabria Ultra, 15 miles West of Squillace.

ACQUA Negra, a town of Italy in Mantua, 2 miles N. N. E. of Caneto. There is another town of the same name near the conflux of the Adda and Po, 3 miles West of Cremona.

ACQUACKACKNACK, or ACQUAKINACK, a town of America, on the W. side of Passaic river, in the county of Essex in New Jerfey; 10 miles N. of Newark, and 17 N. W. from New York.

ACQUAPENDENTE, a large town, now almost defolate, though a bishop's see, and containing 16 churches and convents, situate on a rocky eminence in the territory of Orvieto in Italy. N. lat. 42° 43'. E. long. 11° 53'.

ACQUARA, a town of Italy in the kingdom of Naples, 13 miles S. W. of Cangiano.

ACQUARIA, a small town of Italy in Frignano, a district of Modena, famous for its medicinal waters. N. lat. 44° 24'. E. long. 11° 17'.

ACQUA Spartia, a town of Italy in Umbria, 10 miles W. of Spoleto.

ACQUAVIVA, an inaccessible town in the county of Bari, a district of Apulia in Italy. N. lat. 41° 10'. E. long. 16° 20'. Another town of this name lies 8 miles N. N. W. of Rome, and another in the kingdom of Naples, 10 miles W. of Molife; and again another in the Marquisate of Ancona, 10 miles N. E. of Aecoli.

ACQUEST, or ACQUIST, formed of Fr. acquérir, from acquérere, to acquire or get, is understood in a legal sense of goods or effects, acquired either by purchase or donation. The French laws make a great difference between accquests and hereditary effects. The civil law allows none. See Heir.

ACQUEST is also popularly used for conquét, or a place acquired by the sword.

ACQUETTA, in Geography. See Aquetta.

ACQUI, a fortified town and bishop's see in the duchy of Montferrat in Italy. It is situated at a small distance from the Apennines, about 25 miles N. W. from Genoa, and has its name from its warm baths. N. lat. 44° 40'. E. long. 8° 30'.

ACQUIDA, a small Dutch fort to the E. of Ancobar river in the gold coast of Africa. N. lat. 4° 32'. long. nearly the same with that of Greenwich.

ACQUETANDIS, in law, a writ of false testimony lying for a writ against the creditor that refuses to acquit him after the debt is paid.

ACQUETARE, in ancient law-books, signifies to discharge or pay the debts of a person defecct; as the heir thofe of his father, &c.

ACQUISITION, the act of procuring a right or title to the enjoyment or property of a thing. Acquisition is also sometimes used for an acquëst.

ACQUITTAI, a discharge, deliverance, or setting free of a person from the guilt or fulpiion of an offence. Acquittal is of two kinds; in law, and in fait. When two persons are accused or indicted for felony, one as principal, the other as accessory; the principal being discharged, the accessory is, by consequence, also freed; in which case, as the accessory is acquitted by law, so is the principal in fait.

When a person is acquitted of a felony, and is questioned again for the same crime, he may plead in acquit; as his life cannot be twice exposed to danger for the same offence. But in murder, acquittal does not prevent an appeal; and the principal or accessory, may be either remitted to prison or haled by the court, till the year and day of appeal be passed. If a person is lawfully acquitted on a malicious prosecution, he may bring his action for damages, after he hath had a copy of the indictment.

ACQUITTAI, is also used where there is a lord mesne and tenant, and the tenant holds lands of the mesne, and the mesne holds over the lord paramount; here, the mesne ought to acquit the tenant of all services claimed by any other for the same lands; the tenant being to do service to the mesne only, and not to divers lords for one parcel of land.

ACQUITTANCE, or QUIETTANCE, a release or discharge in writing, for a sum of money or other duty, which ought to be paid or done. No person is obliged to pay without an acquittance, and the acquittance of a servant accustomed to receive money for his master, is a good discharge. The verb acquit, the participle, acquitted, and the noun acquittal, do all signify a discharge from an offence objected. In which case we meet with acquitted by proclamation.

ACRA, in Ancient Geography, one of the hills of Jerusalem, on which stood the old or lower city; as the new or high city, called also the city of David, was situate on mount Zion, to the south of Aera. This is supposed by some to be the same with Mount Moriah, on a part of which Solomon built his temple; and they alllege, that Moriah in Hebrew, and Aera in Greek, have the same meaning, and signify an eminence. Wells's Sacr. Geog. vol. iii. p. 76.

As there was a citadel or fortress built on this hill by Antiochus, in order to annoy the temple, which was afterwards taken and razed by Simon Maccabaeus, it is not improbable that the name was derived from this circumstance. Anc. U. H. vol. ii. p. 488. The Armenians, not satisfied with having razed the citadel built by the Syrians, lowered the top of the mountain, and filled up the valley towards the sea, by which means the ground on which the temple stood, or Mount Moriah, became higher than Aera, and thus the communication between them was rendered more easy.

ACRA, in Syria. See ACRA.

ACRA Point. See HANDISILAR.

ACRABA, a town of Mesopotamia in Asia, situate near the river Chlaboras, about 36° 20'. N. lat.

ACRABATA, a town of Asia, towards the limits of Samaria.

ACRABATENE, the name of two districts of Judea: one extending itself between Scechoem, now Naplola, and Jericho,
Jericho, about 12 miles in length; and another on the frontier of Idumaea, towards the southern extremity of the Dead Sea.

ACRACANUS, a river of Asia in Abydene, supposed by Eusebius to be the same with Maarrara.

ACR. DINA. See ACHRADA.

ACR. E., an ancient town of Sicily, founded according to Thucydides (lib. 6. p. 381. Ed. Duker) 70 years after Syracus, built upon an eminence, as Silvus Italics (lib. 14. v. 207.) describes it, and inhabited by a people whom Pliny (H. N. vol. i. p. 163.) denominates Acrones. It was situated about 24 miles to the south of Syracuse, not far from the sea, and near the monastery which the Sicilians call Santa Maria d'Africa, between the cities of Noto and Avola. There are medals of this city in bronze, gold and silver.

ACR. ESFANDIAS, a district of Spain, S. E. of the monitory of Artabrum.

ACR. E. S. was also an epithet of Diana, who was generally worshipped in high places.

ACR. E. A., a surname of Juno of Corinth, who had a temple in the citadel of the Sicilian Acr.; and also a surname of Fortune for the same reason.

ACR. EPHIA, ACRASPHIUM, or ACRASPAS, a district of Pausania (lib. 9. c. 23. p. 755. Ed. Kuhl) calls it, Acrasphium, was a city of Bariot, situated on Mount Pooe, where was a temple of Apollo. This place, according to Pausania, afforded refuge to the Thebans, when Alexander demolished their city.

ACR. EUS. was a surname of Jupiter, who was honoured by the inhabitants of Smyrna in a temple on an eminence near the sea.

ACRAGAS, a town of Sicily, built upon a mountain, at the confluence of the rivers Agarac and Hypsea, and within two miles of the sea, by the people of Gela in the year before Christ 584. It took its name from the river Acragas, now called Fiume di Gergeri; and whence other cities, enumerated by Stephanus (de Urb. vol. i. p. 53.) were denominated Acraganates. Acragas was very strongl fortified. The inhabitants were luxurious in their diet, and magnificent in their dwellings; and they are represented by Empedocles, says Diogenes Laertius (tom. i. p. 532.) to be persons, who lived to-day as if they were to die to-morrow, and who built, as if they were to live for ever. The adjacent country abounded with vines and olives, the produce of which afforded a lucrative commerce with Carthage. Acragas has been more generally distinguished by its Roman appellation Agrigentum. The medals of this city were gold, silver and bronze.

ACR. JAFFA, a promontory in the kingdom of Naples, to the S. E. of Otranto, where was formerly a town, now in ruins, on the Ionian Sea, opposite to the Monte acrocoraum of Epirus. Ptolemy called it Salentina, and it is now denominated Copo di San Maria di Leuce.

ACR. OF SCILAX, an island on the coast of Numidia, that forms the modern part of Harthgoone, under which vellets of the greatest burden may lie in safety. Stephanus (de Urb. vol. i. p. 53.) enumerates 10 cities under the appellation of Acr.

ACRAMAR, or VAN, in Geography, a town and lake of the Greater Armenia in Asia. N. lat. 36° 30'. E. long. 44° 14'. The town, which is the capital of the government of Van, is situated at the foot of the mountains of Diarbekir, and is said to have been built by Semiramis. It is large, populous and commercial. In the adjoining lake, which abounds with fish, there are two small islands, inhabited by religious Armenians.

ACRASIA, formed of a priv. and τυπομακινον αι, is used by some writers in Phys. for the excess or predominant of one quality above another, either in artificial mixture, or in the constitution of the human body. The word is used by Hippocrates, and other Greek medicinal writers, to express excess of any kind, intemperance and imbecility.

ACRASUS, in Ancient Geography, a town of Asia Minor in Lydia. There are some imperial Greek medals of this city, which were sent under the pretors, in honour of Severus, Plautilla, Geta, Julia Paula, Alex. Severus and Caracalla.

ACRATH, a town in Mauritania Tingitana, supposed to be the present Fesia de Gamarra.

ACRATISMA, in Antiquity, a breakfast among the old Greeks, consisting of a mortar of bread soaked in pure unripe wine.

ACRATOMELI. See MULSUM.

ACRATOPHORUS, a surname of Buceach, under which he was honoured at Phigalia, a city of Arcadia.

ACRaTOS, from a priv. and περιομακινον αι, signifies simple or uninixed. This term is very often used by Hippocrates, and applied to excretions of different forts, and is always of very bad preface. Thus, in his Premonitions, he observes, that in all painful disorders of the plures and lungs, the spittle should appear mixed and yellow; and that it is a dangerous symptom, if it be altogether yellow, without any mixture: and he adds, that if the spittle be fo unmixed, as to appear black, it is a very bad preface.

ACR. E., or ACR. E., in Geography, a sea-port town on the Phcenician coast in Syria. Its ancient Hebrew name was Asco or Acho, under which appellation it is mentioned as a place of considerable strength in the book of Judges, ch. i. v. 31 and it is still called by the Arabs Akka. It was after the denominated Ptolemais, from one of the Ptolemys in Egypt, and Acr. on account of its fortifications and importance: whence the knights of St. John of Jerusalem called it St. John d'Arc. The situation of Acre possesse every possible advantage both of sea and land: as it is encompassed on the N. and E. by a spacious and fertile plain, on the W. by the Mediterranean, and on the S. by a large bay, extending from the city to Mount Carmel. This city successively under the dominion of the Romans and afterwards of the Moors, was for a long time the theatre of contention between the Christians and the Infidels in the progress of the crusades. It was taken by the victorious Saladin in 1187; and surrendered to the united arms of Philip Augustus of France, and Richard I. of England in 1191, after a siege of two years, which confirmed a great multitude of forces, both of Europe and Asia. Although the Europeans thus acquired a strong town and convenient harbour, the advantage was very dearly purchased. It is said (see Gibbon's Hist. vol. xi. p. 144. 8vo.) that on this occasion more than 100,000 Christians were slain; that a far greater number was lost by disease or shipwreck; and that a small portion of an army, consisting of five or six hundred thousand perons, returned in safety to their native countries. After the loss of Jerusalem in unsuccessful attempts for recovering the Holy Land from the possession of the Saracens, renewed by St. Louis with the co-operation of our Edward I. and other powers, Acre became the metropolis of the Latin Christians, and was adorned with strong and stately buildings, with aqueducts, an artificial port and a double wall. Its population was increased by an influx of pilgrims and fugitives; and the trade of the East and West was attracted to this convenient station. At this time, however, the inhabitants were extremely corrupt; and the government, though exercised by many foreignees, feeble and ineffectual to any purpose of salutary restraint. Adventurers fission from this city, under the banner of the crois, to plunder the Mahometan villages;
and though nineteen Syrian merchants were robbed and ignominiously put to death, satisfaction was withheld. The Sultan Khalil retented this conduct, and marched against Acre, at the head of a large army, furnished with a tremendous train of artillery. After a siege of 33 days the double wall was forced, by the Moslems, the principal tower yielded to their engines, the city was stormed, and death or slavery was the lot of sixty thousand Christians. The fortresses of the Templars was destroyed, the grand mallet killed, and of 500 knights, 10 only survived: who probably suffered on a scaffold (says Gibbon,) in the unjust and cruel proscription of the whole order. Few of the fugitives, among whom were the king of Jerusalem, the patriarch, and the great master of the hospital, escaped the dangers of the sea, and safely arrived in the island of Cyprus. This disastrous event happened (says Maunder in his journey, &c. P. 55.) on May 19, 1291. He adds, that the abbeys of the nunery, in order to avoid that violation which was apprehended from the licentiousness of the Saracen victors, ordered the young nuns under her care to mangle their faces, setting an example in her own person, that they might thus become the objects of averton instead of brutal desire. The Saracens, disappointed and inflamed with resentment, put them all to the sword.

After the expulsion of the crusaders, Acre exhibited a scene of magnificent ruin, and remained in a great degree defoliated and deforested until about the year 1750, when it was fortified by Daher, an Arabian sheik, who obtained the appellation of Prince of St. John of Acre, and maintained his independence against the whole force of the Ottoman empire, till the year 1775, when he was safely assassinated by order of the Ottoman Porte, at the advanced age of 86 years. He was adored by his people (says Savary, Letters, vol. ii., p. 200,) whom he had through life defended against the tyranny of the Pacha, and yet by this tyrant he was betrayed and murdered.

At a later period Acre has been rendered, by the works of Djezzar, one of the principal towns upon the coast. The mole of this Pacha is much admired. The bazaar, or covered market, is not inferior to the bazars of Aleppo, and its public fountain is superior in elegance to those of Damascus. These improvements were designed and executed by the Pacha himself. The place, however, though its fortifications had been often repaired, was very weakly defended; and in the spring of 1799, it was found necessary to strengthen its fortifications, in order to guard against the apprehended alluvial of the French army under Bonaparte. The Pacha Djezzar, who had actually evacuated Caifas, a town at the foot of Mount Carmel, surrounded with a good wall, and flanked with towers, and who had disarmed the caifal which defended the fort and road, had reason to distrust his security at Acre. He was therefore preparing to make good his retreat, and to convey away his women and treasure, when Sir Sidney Smith anchored in the road of Caifas with an English squadron, and deputed a French engineer (Col. Philippeaux) to aid him in fortifying the town. This engineer caused the fortresses to be repaired, which was fortified after the mode of the 12th century, with courstins flanked with square towers. The Pacha, thus affrighted and animated, determined to co-operate with the English squadron in the defence of the town. Kleber, however, with the French advanced guard, had taken possession of Caifas; and Bonaparte had completed the investment of Acre, when his battening-pieces and flares fell into the hands of the English. This loss decided the fate of the town; and though the French renewed and varied their attacks, they were repeatedly repulsed by the garrison in concurrence with the marines of the English squadron, under the command of the Commodore, Sir Sidney Smith. After multiplied and irreparable losses, it was found almost impossible to reduce a place, defended with so much intrepidity, and possessing a variety of advantages which it holds in our purpose minutely to detail. Bonaparte at length determined to raise the siege, and announced his resolution to the army, which began its march on the 20th of May, the 6th day after breaking ground. Djezzar did not perceive for two days that the trenches were evacuated, so that the French army had an opportunity of continuing its march without molestation, ravaging the country, burning the hawels, and destroying the defences of the ports, the magazines, and all the resources which the Turks might have used in approaching the frontiers of Egypt. Kleber formed the rearward with his division, which, after having crossed the defait, embarked at Tyre for Damietta. Bonaparte left a strong garrison at Cattich, and entered Cairo with the rest of the army, 26 days after the raising of the siege.

The aspect of the field of carnage on this occasion was horrible. The ditches and the reverses of the parapets were filled with corpses, and the air itself was infected for want of an opportunity to remove the wounded whom the Turks left uncontrolled, and to bury the dead. Notwithstanding the singular spirit and very extraordinary exertions manifested in this siege, by both the assailants and the besieged; humanity on both sides was fraught with the aggravating circumstances of cruelty and diffidence that attended it.

The principal articles of commerce at Acre, are corn and cotton; but the trade is monopolized by the Pacha in his own hands. The French have usually had a consul in this place, and Russia a resident. Acre is situated 27 miles S. of Tyre; and about 70 miles N. of Jerusalem, L. lat. 32° 40'. E. long. 39° 25'.

Acre is used in the dominions of the Mogul, with regard to his revenues, in the same fene with land, for the fame of 100,000 rupees: eight rupees being equal to about one pound sterling.

Acre denotes a quantity of land, containing four square rods, or 160 square poles or perches.

The word, perhaps, is formed from the Saxon acer, or German aek, field, or the Latin aget. Salmaeus derives it from aera, used for aetna, a land-measure among the Ancients, containing 10 feet. The term acre formerly meant any open ground or field, as Caile-acre, Weal-acre, and not a determinate quantity of land.

By the customs of countries, the perch differs in quantity, and consequently the acre of land: it is commonly 16¼ feet; but in Staffordshire, it is 24 feet; in other counties 28 feet; and in some parts of England 18, 21 feet.

According to the statute 34 Hen. VIII. concerning the lying of wax, it is declared, that 160 perchs, i. e. 16 in length, and 10 in breadth, or in that proportion, make an acre; and the ordinance for measuring land, 35 Edw. I., agrees with this account. And therefore, as the statute length of a pole is 5¼ yards, or 16½ feet, the acre will contain 4840 square yards, or 43,560 square feet. Moreover, as the chain, used in measuring land, is four poles or 22 yards in length, the square chain will be 484 yards, and the acre will be 10 square chains. And a mile being 1760 yards, or 80 chains in length; the square mile will be 1760 x 1760 = 3,097,600 square yards, and contain 80 x 80 = 6,400 square chains, or 640 acres. Some old farmers distinguish between need-aces and flat-aces; the former being a vague measure, determined by the proportion of feed used in fowing it, and therefore depending on the fertility or barrenness of the soil.
The Scots acre contains 4. Scots roods, and bears proportion to that of the English by statute, as 100,000 to 78,679, regard being had to the difference between the Scots and English foot. One square rood is 40 square feet; one square foot, 36 square inches; one square feet, 9 square inches; and a square foot, 144 square inches. The Scots acre is also divided into ten square chains; the measuring chain being 24 ells in length, and consisting of 100 links, each link 8.928 inches; and each square chain will contain 10,890 square links. The English statute acre is about 3 roods and 6 falls, standard measure of Scotland.

The French acre, _apent_, is different in various provinces; the acre of Paris contains 100 square perches, the perch being 18 feet, or 3 toises; in some places the perch is 22 feet, and in others 24. Allowing the proportion of the English square foot to be to that of the French, as 1000 to 1165, the acre of 100 square perches, at 18 feet each, will be 32,400 French square feet, or about 36,774 English square feet, and the perch being 22 feet, the acre will be 39,400 French square feet, or about 45,500 English square feet; it will be very easy to estimate the proportion of the one to the other. The Strafsburg acre is about half an English acre. The Welsh acre contains commonly two English ones. The Irish acre is equal to 1 acre, 2 roods, 19 perches or 1 English acre.

Houghton gives a table of the number of acres to a houfe in each county of South Britain, which is found to vary in the English counties from 31 acres, the proportion in Middlesex, and 173 in Surry, to 49 acres in Southampton; in the Welsh counties, from 51 acres, as it is found in Flintshire, to 193, as in Merionethshire.

Dr. Grew attempts to ascertain the number of acres in England; which, according to him, amounts to 46 millions and 80,000. Phil. Trans. No. 230, or Abr. vol. ix. p. 450. Sir William Petty reckons not 28 millions; others 29 millions. And by an account of the number of acres in each county, supposed to be taken from some old registers, the number of acres in England amounted only to 39½ millions. Others estimate the number of acres in England and Wales at about 46,916,000; and in Scotland 26,000,000.

Hylland others again affirm, that England and Wales contain no more than 38,500,000 acres; and that Scotland with its adjacent islands, contains about 21 millions of acres. Allowing with Zimmermann, (Political Survey, p. 192.) that England and Wales contain 54,412 square miles, and Scotland 25,000 square miles; the number of acres in the former will be 34,531,680, and in the latter 16,384,000.

Ireland, comprehending 21,216 square miles, will contain 13,578,240 acres.

The United Provinces are said to contain 4,382,000 acres, but reckoning with Zimmermann (Political Survey, p. 164.) the area 12,000 square miles, the number of acres will be 6,400,000; and the province of Holland is estimated at one million of acres, or according to the same writer, 1,280,000 acres; and they were thought formerly to contain 2,400,000 perches, but according to a public account given in 1783, 2,757,652 perches. If England were as well peopled in proportion, it is said that it would contain 46 millions of inhabitants, i.e. about seven or eight times as many as it now contains.

The area of France, according to the statement of Necker, is 157,592 square miles; and if this estimate be just, it contains 1,011,071,360 acres. Spain, according to Lopez's map, contains 1,184,48 square miles; and consequently 93,067,720 English acres. Portugal comprehends 27,376 square miles, or 17,579,340 acres. The whole of Turkey in Europe, Asia, and Africa, estimated at 800,000 square miles, contains 512,000,000 acres. The European part of Russia is said to contain 1,193,676 square miles, and consequently 761,784,620 acres; and Admiral Ruskin supposed to be 3,605,024 square miles, includes 236,815,760 acres. If Sweden contains 216,000 square miles, as Bichfing states it, its extent in English acres will be 138,240,000. Denmark, comprehending 18,240 square miles, will contain 116,735,600 acres. Poland and Lithuania, estimated at 165,800 square miles, will contain 193,912,000 acres. The kingdom of Prussia, including the countries that are independent of the German empire, supposed to contain 57,000 square miles, comprehends 46,861,000; and Prussia alone containing 22,144 square miles, includes 21,172,160 acres. Germany, estimated at 154,571, square miles, contains 122,605,440 acres. Switzerland, containing 15,296 square miles, has 97,800,440 acres. Italy, containing 90,000 square miles, has 57,600,000 acres.

The territory of the United States of America, according to the measurement and computation of Mr. Hutchins, geographer to the States, contains 580 millions of acres, exclusively of water, which is computed at 51 million more. Morse's Geog. p. 35. See Political Arithmetic.

By a statute of 13 Eliz. it was ordained, that if any man erected a new cottage, he should add four acres of land to it; but this statute was repealed by 15 Geo. III. c. 32.

Acre-Fight, is an old sort of duel, fought by single combatants, English and Scotch, between the frontiers of their kingdoms, with sword and lance; and this duelling was also called camp-fight, and the combatants, champions, from the open field that was the stage of trial.

Acre-Tax, a tax laid on land at so much per acre. In some places this is also called acre-shot. Impositions on lands in the Great Level are to be raised by a proportionable acre-tax. 20 Car. II. cap. 8. An acre-tax of 25. 6d. per acre, for draining Hadham level. 13 Geo. I. cap. 18.

ACRE, in Ancient Geography, a town placed by Ptolemy in Sicily. N. lat. 36°. 42' E. long. 39° 15'. See ACRE.

ACREDULLA, in Zoology, a species of the Mus, in the Linnaean sytem; the migratory mouse of Pallas, with pouches to the cheeks, furred small ears, a grey body, with the lower part white. It is four inches long; with an annulated tail, the upper part of which is brown, found in the Orenburg district of Siberia, near the river Urag.

ACREL, Gof., in Biography, was born the 26th of November 1717, in a parish in the neighbourhood of Stockholm, where his ancestors had been ministers ever since the year 1380. He commenced his studies at Upsal; and in the year 1738, translated into the Swedish language some of the works of Boerhaave. He then went to Gottingen, where he continued his studies, and afterwards to Strafsbourg, and thence to Paris. In the year 1744, he served one campaign in the French army in Germany, whence returning to Stockholm, he was admitted a member of the surgeons' company there. In 1746, he was elected into the academy of sciences; in 1751, he was made one of the foreign associates of the academy of surgery at Paris. In 1764, he was advanced to the degree of doctor of the faculty of medicine at Upsal, and admitted to the royal college of physic at Stockholm. He was in great reputation, and had a considerable share of practice, principally in surgery, and has left several works, all written in his own language, which
which are in great request among his countrymen. The
titles translated into English are, 1. A Treatise on Wounds.
2. A Discourse on the best method of constructing an
Hospitall. He read this discourse at a meeting of the royal
academy at Stockholm when he was elected their pro-
fident. 3. A Discourse on the Method of depressing the
Catarrh, 8vo. 1759, 1775, Stockholm. In this
discourse he defends his practice against professor Wallborn,
who had opposed him. A Discourse on some alterations
and improvements in performing certain operations in Sur-
gery, and the instruments used in performing them, was
read by him to the royal academy on his being elected president
a second time.

ACRENE, a term sometimes used in ancient law-books
for ten acres.

ACREON, in Entomology, a species of Papilio, with
brown wings, the under part black and ocellated; the
binder wings having a white margin, marked with a red band
and ridge of gold-coloured points. It is found in the
southern part of Russia.

ACRI, in Geography, a town of Naples, in Calabria.
Citra, five miles east of Scalea.

ACRIA, in Ancient Geography, a sea-port town of Laconia,
situate near the mouth of the Eurotes, opposite to Trimithii,
and not far from Gythium.

ACRIBEIA, a Greek term ακριβεία, literally denoting
an exquisite or delicate accuracy; it is sometimes used in
our language for want of a word of equal significance.

ACRID, in Natural History, denotes anything sharp
or pungent to the taste. Ancient Naturalists distinguish two
kinds of acid tastes; the first proceeding from hot and dry,
as that of pepper; the second from that of hot and moist,
as that of garlic. Acid, according to Dr. Crew, properly
belong to the class of compound tastes. It is not
simply four or pungent, as there are bodies not acid, which
nevertheless are pungent, e. g. arum; nor is it simply hot;
for there are many hot bodies which are not acid, as the
roots of zedoary, yarrow, and contrayerva. The character-
sitic, therefore, of acidity consists in pungency joined
with heat. Acid bodies applied to the skin inflame and
exacerbate it; when chewed, they produce fialva, and when
passed, fusing. Acids may be divided into clusses, ac-
cording to the manner in which they yield their acrimony.
1. By distillation, as horde-radilis, mustard, &c. 2. By
inflation, as the greater Celandine, &c. 3. Neither by in-
flation nor distillation, as arum, &c. Acid medicines, as to
their general effect, serve to stimulate the vessels, and dif-
fuse tenderous and viscid juices. In leucophagmatic hab-
its they are powerful expectorants, dephlegmatics, diuretics,
and emmenagogues: and if the patient be kept warm, fu-
dorifics. In hot biphous temperaments, pethoric habits, in-
fammatory dilemptics, and in cafes where the juices are too
thin and acidimonic, or the virescent unford, acids are in-
juries. See Stimulants.

Some vegetables, which are either inodorous, or emit a
weak smell, excite a local inflammation when applied fresh
to the skin, but lose their faculty in drying. When recently
gathered, and inwardly taken, they produce poisonous
effects. Of this kind are the fresh roots of squills, the
leaves of fox-glove, of wild anemonie, of virgin's bower,
of wolf's-bane, of monk's-hood; the roots of blue orris, of
aphodel, of king's spear, of meadow fawning, of white bry-
ony, or wild vine, and of wake-robinn; and the fruits of
wild cucumber. As these substances lose their acrimony by
being well dried, the acid matter which produces their
irritating effect appears to be volatile; and this is farther
confirmed, by its being communicated to water and spirits of
wine, abstracted from them by distillation. Hence it may
be inferred, that this volatile matter is a particular, pro-
ximate, acidulent part, belonging to the vegetable kingdom;
and in order to distinguish it from other principles of a
similar kind, it has been denominated the acid matter of plants.
Its acrimony is not destroyed by acids nor by alkales, and it is
not ammonia in any form. In the antagonistic plants,
such as furrug-grass, water-cribillies, garlic, onions, horse-
radish, common radish, and mulled-beef, this acid prin-
ципle is combined with oily particles of an ethereal
nature, and its effects seem to be weakened by this union.
There are other plants which are not deprived by extractio-
operation of the power of producing local inflammation, when
outwardly applied to a living body; and in those plants it seems
to originate from their poisonous parts; such as emor-
bum, or wart-wort, various plants of several species of
the daphne, of the capricum annum, or Guinea-pepper, of
the miller of Spain, &c. The acid matter of Spanish flies
is essentially distinct from the acid matter of vegetables, as
it is not elipted by drying, and cannot be extracted by
water; though it may be obtained by spirit of wine and
ether. It resembles the latter kind of acid matter, and
seems to be of a ruminous nature. See Green's Principles of

Acid substances constitute one class of Condiments in
the Materia Medica of Dr. Cullen, vol. i. p. 427. He di-
tributes them into two kinds, viz. aromatic, imbued with
peculiar and pretty strong odours, and the more simple
acrids possessing little peculiar odour. Besides the Aroma-
tics, the acid substances employed as condiments, are
especially taken from the class of terebrydyac plants: and
they are chiefly the mustard and horseradish. These stimu-
late the stomach and afford digestion; and as they promote
perpiration and urine, they correct the putrescent tenden-
cy of the system, and hence vegetables of this class have been
denominated Antiscorbutic. Because they possess this
quality, they are proper to be used with our animal
food, as the aromatics are the suitable condiments of our vegetable
aliments. The plants of the garlic tribe are ended with a
similar acrimony. Those of the milder kind, as the onion
and leek, more especially when deprived of their acrimony,
afford a considerable quantity of nutritious matter; and
these, together with the echalot, and others, arc very pro-
per condiments. Garlic, used for the same purpose, strongly
stimulates the stomach, and promotes digestion. All the
plants of this order, as they serve to promote perpiration
and urine, are very properly joined with our animal food,
and may be referred to the class of antiscorbutics. Alka-
losides may also be recommended as a condiment, that is
useful in promoting digestion. Of the more simple acidis,
the capsicum, or pepper, is the most commonly used. The
cuting of acid food, with a view to the effects above enume-
rated, was particularly called by the Greeks drimaphagia,
formed of ἀρείως, acid, and ἀετὶ, to eat.

ACRID, in Entomology, the name by which Lin-
naeus has distinguished the first family of the Gryllus,
the Tettigides of Fabricius, or the cricket, properly so
called; the characters of which are, that the head is conical
and longer than the thorax, and the antennæ eniform or
sword-shaped. Of this family there are eight species, none
of which are found in Britain. The insects of this family
feed on other insects.

ACRIDOPHAGI, composed of ἀρείως, lecith, and
ἀετὶ, to eat, in Ancient Geography, a nation or people
of Ethiopia, inhabiting near the defects, &c. who are said to
have
have fed on loculls. These people, as Diodorus Siculus (lib. iii. c. 29. tom. i. p. 195. Ed. Weiseling.) describes them, were of a low stature, and a meagre black aspect. In the spring they provided themselves with a supply of large loculls, by setting fire to wood and other combustible materials, which they deposited in a large and deep valley, so that when swarms of loculls were driven by the south-west winds over this valley, they were suffocated by the smoke. These loculls, which covered the ground to a considerable extent, were collected and salted, and in this state furnished a supply of food for the whole year; and, indeed, it was the only food upon which they subsisted, as they had neither hens nor flocks; and being far from the sea, they had no supply of fish. They were an active people, and ran with great swiftness; but the duration of their lives was short, not exceeding forty years; and they generally fell sacrifices to a malady of a very peculiar kind. They were devoured by winged insects of different species, and of very hideous forms, which were generated in their bodies, and which filled forth in various parts, occasioning exquisite torture, and at length a very painful death. Whether this dreadful malady was owing to the food of the people, or to the peculiar air of the climate in which they lived, it is not easy to determine. See Strabo, (Geog. l. xvi. tom. ii. p. 1118.) and St. Jerome against Osvianus, lib. ii. and on St. John, cap. iv. Pliny (H. N. tom. i. p. 609. Ed. Harl.) also speaks of Acridophagi, in Partia, and St. Jerome, in Lybia. Although the circumstances of these people may in some respects be fabulous; yet may the Acridophagia be true; and to this day they are said to eat loculls in some parts of the eall. This is confirmed by the accounts of the Danish mission, in Niebuhr’s description de l’Arabic, p. 150, &c. In Abyphinia loculls are eaten, both fresh and salted. Some of them are dried in the sun, and thus prepared for use. In Arabia also, as Niebuhr informs us, they preserve them in the same manner. Dr. Shaw (Travels, &c. p. 188.) observes, that the Jews were allowed to eat them; and that when they are sprinkled with salt and fried, their taste resembles that of our fresh water cray-fish; and Ruffel (Hill, Aleppo, p. 62.) says, that the Arabs salt them, and eat them as a delicacy. From Haflequeil, who travelled in Syria and Egypt so lately as the year 1752, we learn, that when corn is scarce, the Arabians grind the loculls in hand-mills, or stone-mortars, and bake them in the form of cakes, which they use as bread; and that he has frequently seen them boiled and reamed with butter, and made into a kind of flat bread. Amongst the Hotentots, as Dr. Sparrman informs us, (Voyage to the Cape, vol. i. p. 36.) they are made into a brown coffee-coloured soup, which acquires from the eggs of the females, that are chiefly used for this purpose, a fat and greasy appearance. These people compensate themselves for the damage done by the flights of loculls, by converting large quantities of them into a nutritious food. These facts remove every difficulty in determining the food of John the Baptist, who is said to have lived on loculls, ἀκρίδας, and wild honey. Matt. chap. iii. v. 4. Yet the rendering of ἀκρίδας by loculls, as the English translators have done, has been much controverted. Isidore of Pelusium, in his 123d epistle, speaking of this food of St. John, says, it was not animals, but the tops of herbs; and even charges those who understand the word otherwise with ignorance: but St. Augustine, Beda, Ludolphus, and others, are of a different opinion. Accordingly the Jefuits of Antwerp reject, with contempt, the opinion of the Eboniters, who, for ἀκρίδας, put ἄκρυσσίης, a delicious diet prepared of honey and oil; that of some other innovators, who read ξυπερίς or ξυπερίδας, and that of Boza, who reads ξυπερίδας, wild peares. The term ἀκρίδας says Dr. Shaw, (ubi supra) does not denote the tops of plants, as some have contended, but it is applied to the locull upon account of its appetite for such food. The word is used by Ariosto (Hift. Anim. lib. vi. c. 28.) and other historians in the same sense. The Septuagint interpret Φῆσις, ἀκραβάς, by the same name; and therefore the writers of the New Testament may be supposed to have taken it in the same signification. He adds, if loculls appeared in the Holy Land, during the fasting, as they did in Barby, it may be presumed that St. John entered upon his mission, and σβέους ἑαυτής to Ἰερακί (Luke i. 20.) at that season. ACRITOLIUM, in Botany, signifies any prickly leaved plant.

ACRII Montes, in Ancient Geography, mountains of Sicily, called also Hercol. ACRILLAE, a city of Sicily, between Acrae and Agrigentum, not far from Syracuse. This is probably the same with Accila, mentioned by Plutarch in Marcellus. See Livy, i. xxiv. c. 35. tom. iii. p. 890. Ed. Drakenb. ACRIMONY, that quality of substances which renders them acrid to the taste. The acrimony of the bile is supposed to be the cause of divers disorders; and a carathea is represented to be a delusion of acrimonious humour. The Britol water is recommended by Dr. Randolph for tempering the bad effects of acrimonious blood. This he mentions as its first and principal virtue in his inquiry into the medicinal virtues of Britol water, 8vo. 1735.

ACRIMONY, in Medicine, means a state of the fluids of the body, which may become the cause or effect of several diseases. This state of the fluids or humour has been affirmed by the humoral pathologists, of which effect Boerhaave may be considered as the last and most respectable teacher, in order to explain eruptions on the surface of the body, Scurvy, Rheumatism, Gout, Hectic Fever, &c. At present the existence of such a cause is considered as hypothetical.

ACRIOTERI, in Ancient Geography, a marsh of Asia Minor, in the greater Phrygia, upon the frontiers of Pidadia.

ACRIS, άκρις, signifiques a locull, the top of a mountain, and the extremities of fractured bones.

ACRISUS, in Fabulous History, a king of Argos, who, being warned by the oracle that he should be killed by his grandchild, shut up his only daughter Danae in a brazen tower; but Jupiter descending to her in a golden shower, she was delivered of Perseus; who, having slain the Gorgons, carried Medusa’s head to Argos, and transformed Acrisus into a statue of stone. This golden shower was probably a bribe to those who guarded the tower. Some suppose that her uncle Peritas found means to corrupt them, and to get admittance to Danae. Acrisus is said to have been buried in the Acropolis at Argos. The name, (says Dr. Bryant,) is a metathesis of Acritis, or Areatis, by which is meant the great Arkite, the perfon there worshipped.

ACRITAS, in Ancient Geography, a promontory of Melfenia, now Capo di Gallo, between Methone to the west, and Corone to the eall, where the Sinus Coronus begins. It is also the name of a cape of Thithymia, north of the gulf of Attacus.

ACRIVIOLE, in Botany. See Nasturtium Indicum.

ACROAMA,
ACROMA, from ἀκρομα, to hear, in Antiquity, a name given by the Romans to amusing tales, which they recited at their repasts. The appellation was also given to those who played on musical instruments, in contradistinction to those who sung.

ACROMATIC, in a general sense, denotes a thing sublime, profound, or abstruse; and in this sense it is opposed to exoteric. There are few facts or professions, that have not two modes of teaching, if not two sorts of doctrine; an acromatic for adepts and proficients, and an exoteric for novices. We find traces of this distinction among the heathens, as well as among Christian divines, philosophers, and chemists. Hence proceeded the ceremonies of initiations and abductions, and the discipline of secrecy; and hence also the origin of fables, enigmas, parables, lymbols, &c.

ACROMATIC is sometimes also used for any thing kept secret, or remote from popular use; in which sense Reman gives the title Bibliotheca Acromatica, to a description of the MSS. in the library of Vienna, abridged from the vast commentaries of Lambecus and Nefcius.

ACROMATICI, in Philosophy, a denomination given to the disciples or followers of Aristotle, &c. who were admitted into the secrets of the inner or acromatic philosophy.

ACROATHON, in Ancient Geography, a town situate on the top of Mount Athos, where, according to Mela, cited by Cclarius, the age of the inhabitants was half as long again as that of those who lived in other countries. It is called by the modern Greeks, Ατραθών, and by the Italians, La Cima di Monte Santo.

ACROATICS, a name given to Aristotle's lectures in the more difficult and curious parts of philosophy, to which none but his disciples and intimate friends were admitted; whereas the exoteric were public or open to all: but there are other differences. The acroatic were set apart for the higher and more abstruse subjects; the exoteric were employed in rhetorical and civil speculations. Again, the acroatics were more simple and exact, as they aimed at evidence and demonstration; the exoteric chiefly aimed at the probable and plausible. The former were the subject of the morning exercises in the Lyceum, the latter of those in the evening. Besides, the exoteric were published, whereas the acroatics were kept secret, being either entirely concealed, or if they were published, it was in such obscure terms, that few but his own disciples would be the wiser for them. Hence, when Alexander complained of his preceptor for publishing his acroatics, and thus revealing what should have been referred to his disciples: Aristotle answered, that they were made public and not public, because none who had not heard them explained by the author, ὅσον δέοι, would understand them. Plut. in Alex. Stanley's Hill. Philos.

It has been supposed, says Dr. Gillies, in his translation of Aristotle's Ethics and Politics, that, in these two kinds of lectures, the Stagyrite maintained contradictory doctrines on the subjects of religion and morality. But the fact is far otherwise: his practical tenets were uniformly the same in both; but his exoteric, or popular treatises, nearly resembled the philosophical dialogues of Plato, or Cicero; whereas his acroatic writings contained, in a concise energetic style, peculiar to himself, those deep and broad principles on which all solid science is built.

ACROBATATES, in Antiquity, a name given to performers: of these there were four sorts: the first vaulted or tumbled on a rope, sometimes suspending themselves by the neck or foot, &c.: the second slid from a high station along a rope, upon which their breast rested, and with their arms and legs extended, as if they flew: others ran along a rope, which was obliquely extended from a low to a high station: and those of the last sort, danced, leaped, and performed other kinds of feats on a rope stretched horizontally many feet above the ground.

ACROBATICA, or Acrobaticum, formed of ἀκροβατής, high, and περατός, and περάω, to pass, an ancient engine, by which people were raised aloft, that they might see more conveniently about them. This was the same among the Greeks, with what they call scenarium among the Latins.

Authors are not agreed as to the use of this engine. Turnebus and Barbarus suppose, that it was of the military kind, raised by besiegers high enough to overlook the walls, and discover the state of things on the other side. Baldus rather supposes it to be a kind of moveable scaffold, or cradle, contrived for raising painters, plasters, and other workmen to the tops of houses, trees, &c. Some suspect that it might have been used for both purposes. Vitruvius and Aquinas.

ACROCEAANEA, in Ancient Geography, so called from ἀκρος, high, and τρέχω, to run, because they were lofty, and often thunder-built; mountains in Epirus, running out into the sea, under N. lat. 45° 25' extending from W. to E. as far as Piraeus, and separating the Ionian sea from the Adriatic, now called Monti delle Chimera. Virgil (Georg. i. 332. and Aen. iii. 566.) calls them Chimæa. They derived their name from the town of Acroceana, now called Chimera, which is at the foot of the mountain, in the gulf of Chimera. The inhabitants, called Chimerians, are savage robbers; they give their name to a promontory of the Adriatic sea.

ACROCHIRISMUS, ἀκροχίρις, among the Ancients, a kind of gymnastic exercise, wherein the two parties contended only with their hands and fingers, without clothing, or engaging the other parts of the body.

The word is also written acrobatis, and acrobath: it is originally Greek, formed from ἀκρος, the part employed in this combat, which some would needlessly restrain to the tips of the fingers; though the etymology does not make this necessary.

Some make this a distinct exercise from wrestling, and suppose it to have given the denomination acrobatis to a peculiar sort of athlete who professed it. Others with more probability consider it only as a species of wrestling: some will have it to have been properly only a prelude to a wrestling match, wherewith the athlete began to try each other's strength, and bring their arms into play. This exercise made part of the panathenaia. Pausanias speaks of a famous personage, named Sotocrates, who got the surname of Acrochiris, or Acrobati, from his having overcome all his antagonists at the acrobath.—It appears to have been in use in the age of Hippocrates, who ascribes to it a virtue of extenuating the rost of the body, and making the arms fleshy.

ACROCHORDON, a painful species of wart, very prominent and pendulous, having a large head with a small pedicle, or base.

These are also called pedunculated warts, or hanging warts, and from distinguished from feloids verrucae, or mycetoma. Others describe the acrochordon, as a harder, rougher sort of wart, growing under the cutis, very cavernous and umbilical of the same colour with the skin: small at bottom, and bigger upwards, but rarely exceeding the size of a bean.

ACROCOlia, ἀκροκολία from ἀκρος, extreme, and κολία, a knot. These are the extremities of animals, which are used
ACROCOMES, in Antiquity, a people of Thrace, so called, from ακρος, head, and ως, hair, because they had long hair before like females, in contradistinction to the Albantes, who wore their hair long behind.

ACRO-CORINTHUS, in Ancient Geography, a high hill hanging over the city of Corinth, on which was erected a citadel, called also by the same name. This mountain separated the two continents of Greece and Peloponnesus, so that the fortress cut off all communication by land from the inner part of the ilithmus of Corinth, and when well garrisoned, kept all Greece in awe; on which account Philip of Macedon used to call it the letters of Greece. Antigonus took this fortress by surprise, with a design to enslave Peloponnesus; but Aratus recovered it by an action equal, in the opinion of Plutarch, to any of the most celebrated enterprises of the ancient heroes of Greece. Having secured the citadel, he went into the city, and assembling the people in the theatre, acquainted them with the particulars of the Achean league, and exhorted them to accede to it. They unanimously agreed to join in the alliance; upon which Aratus restored to them the keys of the city, which had not been in their power since the time of Philip, the father of Alexander. On the top of this mountain stood a temple of Venus, and from a lower part issued the fountain Pyrene.

ACROE, in Botany, the name given by the natives of Guinea to a kind of shrub, which they use in wine, as a restorative and anæsthetic. It is of the trifoliata kind, and has somewhat of the appearance of the corallodendrons, but it is not prickly; the middle end or leaf stands on a pedicle of an inch long, the two other leaves have no pedicles at all. Phil. Trans. N° 232.

ACROLISSUS, in Ancient Geography, a fortress of Illyria, in Dalmatia, situated on a mountain to the north of Lifius, of which it was the citadel. Polybius says, it was impregnable by Philip king of Macedon.

ACROLITHEUS, in Antiquity, a colossal statue placed by Mausolus, on an eminence, in the temple of Mars, in the city of Halicarnassus.

ACROLOCHAS, in Ancient Geography, a promontory of Egypt; which, according to Strabo, was near the isle of Pharos.

ACROMION, Acronium, in Anatomy, the upper proceeds of the scapula, or shoulder-blade.

The word is derived from ακρος, highest, and ως, shoulder, q. d. the extremity of the shoulder.

Some have thought the acronion of a nature different from other bones; because, during infancy, it appears no more than a cartilage, which adjust by little and little, and about the age of twenty years becomes hard and firm, like a common bone.

ACROMONOGRAPHICUM, from ακρος, head, and γραφα, letter, in Poetry, denotes a kind of poem, or composition, wherein each subsequent verse commences with the letter with which the verse preceding terminates.

ACROMPHALION, from ακρος, extreme, and ως, the navel; the tip of the navel.

ACRON, in Biography, a celebrated physician of Agrigentum, in Sicily, where he practised physic in the time of Empedocles, is said to have restrained the plague at Athens, by purifying the air with large fires, and by burning perfumes in the manner practised by the Egyptians.

When he required, some years after, as a reward for his services, that a piece of ground should be allotted him in the city for his tomb, Empedocles, with whom he had disputed, prevented his obtaining it. He lived about the middle of the fifth century before Christ. Snudas mentions two tracts written by him, in the Doric dialect, the one a general treatise of physic, the other on abstinence or diet.

ACRON was also the name of an ancient scholiast on Horace, in the seventh century, whose work is still extant in an old edition of Horace, printed at Basal, in Svo. in 1527.

ACRON, in Botany, among the Ancients, was used to signify the capitulum, top, or flower of plants of the thistle kind.

ACRON, in Geography, a district on the Gold coast of Guinea, extending along the sea eastward from Fantin to the mount called Monte del Diabolo, or the Devil's Mount. It is divided into Great and Little Acron; the former, which is the interior country, is a kind of republic; the latter, bounded on the south by the sea, is a pure monarchy. They are independent on each other, and yet strictly united under the protection of the Fantins, who derive from the fertile Acrons a principal part of their maintenance. The only European settlement in this kingdom is a Dutch fort, built at Afam, in 1657, called Patience, from the difficulties they encountered whilst they were building it. Apam is a small village, and inhabited only by fishers. The natives of Acron live in peace, cultivate their lands, and pursue their employments in security. Every year affords a plentiful harvest, which enables them to supply their protectors and adjacent countries with corn. The country abounds with game, with which the Dutch fort is plentifully supplied. The people, however, are poor, notwithstanding their industry and the fertility of the soil, and extremely ignorant.

ACRON, in Scripture Geography. See ACRON.

ACRONIUS LACUS, in Geography, a small lake formed by the Rhine soon after its rise out of the Alps, and after passing the greater lake, called Venetus, and now Bodensee, or the lake of Constance.

ACRONYCAL, Achronical, or Achronial, in Astrology, is applied to the rising of a star or other point, above the horizon, when the sun sets; or its setting when the sun rises. This is one of the three poetical risings and settings of the stars; and stands distinguished from Cosmical and Heliocical.

Among ancient writers, a star was properly said to be achronical, or to rise achronically, which rose in the evening when the sun was set. Greek writers, it is true, use the term achronikos indifferently, in speaking either of evening or morning, by reason both are considered as ακρος ως the extremities, of the night. And hence, among them we find achronical applied to the rising and setting of the stars, either in the morning or evening. But the ancients were more distinct, and by the achronikos rather meant the first beginning or approach of night, than the end or period of it; and accordingly among them, the stars which rose in the evening, not those in the morning, were said to rise achronically.

This word is sometimes ignorantly spelt achronal, from a mistaken notion of its being derived from α, and ως, time.

ACRONYCHIA, in Botany, a species of LAWSONIA.

ACRONYCTAE, stars rising in the twilight about sun setting.

ACROPOLIS, in Ancient Geography, the citadel of Athens, which derived its name from the eminence on which
which it was erected, and which is accessible only at the entrance. The fummit is fortified by a wall, built on its extreme edge, and encompassing the whole upper surface, which is nearly level. The natural strength of its situation is said to have induced the first inhabitants to settle there; and as their number increased, they began to build on the adjacent ground, till the Acropolis, being surrounded on every side, became the fortaleza of a large and populous city. It was richly adorned by the Athenians, in the days of their prosperity, with temples, statues, paintings, and votive gifts to their divinities, but is now in a most ruinous condition: though the remains of the famous Propylæa, the little temple of victory without wings, the Doric temple of Minerva, called Parthenon and Heçonpomedon, erected in the time of Pericles, under the direction of Phidias, and the Ionic temples of Erechtheus and Minerva Polias, with the cell of Pandroseus, are still to be seen. Its walls have, at different times, been rudely repaired, or rather rebuilt, as little of the ancient masonry remains; but numerous fragments of columns, cornices, and sculptures, are seen in several parts, which exhibit a ruinous appearance. The Turks keep a small garrison here; and it is the residence of the Diadóchos, or governor of the fortresses, and also of the Alap Ághs, and other inferior officers. The Acropolis formed one of the three divisions of Athens, the other two being the town and the port.

Acropolis was also the name of a city in Libya, and also of Ætolia, mentioned by Stephanus de Urbibus, vol. i. p. 54. There was a city of the same name in Albania, mentioned by Dion Cassius. Hist. Rom. lib. xxxvii. tom. i. p. 112. Ed. Reimar.

ACROPOLITA, George, in Biography, one of the writers in the Byzantine history, was born at Constantinople in the year 1226, and educated at the court of the emperor John Ducas, at Nice. Having made a very distinguished proficiency in mathematics, logic, rhetoric, and poetry, he was employed in the most important affairs of the empire. Ducas deputed him to negotiate peace with Michael of Ephesus, at Larissa: and he was appointed judge to try Michael Comnenus, on a suspicion of being engaged in a conspiracy. Having been advanced to the government of the western provinces of the empire by Theodore Lascaris, the son of John Ducas, he engaged in a war with Michael Angelus, in 1255, and was taken prisoner by him. In 1260, he was liberated by the intervention of the emperor Palæologus, who appointed him ambassador to Complantis, prince of Bulgaria. Upon his return, he devoted himself wholly to the education of youth, in which employment he acquitted himself very honourably for many years. In 1272 he was one of the judges in the cause of John Vecchus, patriarch of Constantinople; and, in the following year, he concluded a reconciliation between the two churches with pope Gregory, and swore to it in the name of the emperor, at the second council of Lyons, in 1274. In 1282, he was sent ambassador to John, prince of Bulgaria, and died soon after his return. His works are, “A Continuation of the Greek history from the taking of Constantinople by the Latins, in 1202,” to its recovery by Michael Palæologus, in 1261,” which forms a part of the Byzantine history: “A treatise concerning faith, virtue, and the soul;” and “An exposition of the sermons of Gregory Nazianzen;” together with some other pieces. Gregorius Cyprius, the patriarch of Constantinople, says of Acropolita, in the extravagance of praise, that he was equal to Aristotle in philosophy, and to Plato in divine things and attain eloquence. His son, Complantis, flourished under Michael Palæologus, and Andronicus his son, by whom he was made Logothete, or chancellor, in 1294. He defended the cause of the Greeks; and wrote several books. Bayle. Fabr. Bibl. Græc. l. v. c. 5. § 10. tom. vi. p. 448.

ACROPORA, in Natural History, a name given by some writers to two species of the Madrepora, viz. the Acroria and Oculata of Linnaeus.

ACROPONTHIA, ἄκροπονθία, or ἄκροπονθις, from ἄξορη, extreme, and ςυνθος, the prepuce, or skin, which covers the glans of the penis, denotes the extremity of the prepuce, which is cut off in circumcision.

ACRORIA, in Ancient Geography, a country given to the Elyte, in Greece, where Xenophon places the city Thasium.

ACROSPERLOS, a name given to the wild-oat grafts, or BROMUS.

ACROSPERMUM, in Botany, a genus of the cryptogamia fungi class: the characters of which are, that the fungus is very simple, sub-erect, and discharging seeds at the apex. There are six species.

Acrosperrnum, is also a species of the Sphera.

ACROSPIRE, in Natural History, &c. the same with Plumule.

ACROSPRIRED, or Acrospire, is used in respect of barley; which, in the operation of making malt, is apt, after coming, or sprouting, at the lower or root-end, to become aceo sprired, i. e. to sprout also at the upper or blade-end.

By 6 Geo. I. cap. 21. Malt-makers are forbid to wet or water their malt when on the floor, or couched; or to permit it to acrospire.

ACROSTIC, in Poetry, a kind of poetical composition, the verses whereof are dispersed in such a manner, as that the initial letters make up some person's name, title, motto, or the like. The word is derived from the Greek ἀκροστις, στής, that which is at one of the extremes: and ὑπερβαίνειν, to pass over. There are also acroflics, where the name or title is made up by the initial letters of the middle words, or the left of the final ones: and others which go backwards; beginning with the first letter of the last verse, and proceeding upwards. Some refiners in this trifling way, and in the exercise of this species of idle wit, have even gone to Pentaacrostics; where the name is to be repeated five times. The Sibylline oracles were written, according to Cicero, in a kind of Acrostics. See Sibyls.

Acrostics is also an appellation given by some authors to two ancient epigrams in the first book of the Anthology; the one in honour of Bacchus, the other of Apollo. Each consists of 25 verses, the first whereof is the proposition, or argument of the whole, and the other 24 composed of four epitaphs, beginning with each the same letter, and thus following in the order of the 25 letters of the Greek alphabet; so that the first of the 25 comprehends four epitaphs beginning with Α; the second as many, with Β; and so of the rest to Ω; which makes 96 epitaphs for each god.

Among Ecclesiastical Writers, acrostics denote the ends of verses of psalms, which the people sang by way of chorus, or rejoin to, to the psalmist, or leader of the psalm. This is also called singing acrostics, acrosticha, which was a species of psalmody usual in the ancient church.

Acroitic, in this sense, amounts to the same with hypopsloma, diaspilama, acrotaliation, and ephymonium, which are all terms of the same signification.

Though an acrostic properly signifies the beginning of a verse, yet it is sometimes also used for the end and close of it; as by the author of the confutations, when he orders one to sing the hymns of David, and the people to sing after him the acrostics, or ends of the verses.

It does not, however, denote precisely the end of the verse,
verse, but something added at the end of a psalm, or some-
thing frequently repeated in the course of a psalm, anfwer-
ing to our gloria patri.

Some pretend to find acrostics in the psalms, particularly
in those called abecedarian psalms.

ACROSTICUM, formed of ακροτηρία, συμμονή ὀρὸς,
σταύροςδέντρον, or forked firm, in Botany, a genus of the
cryptogamia filices cladem order; the character of which is,
that the fructifications cover the whole inferior surface of the
front or leaf. Professor Martyn, in his edition of Miller’s
Dictionary, enumerates 44, and Gmelin 45 species, which are
distributed into different classes, comprehending those with a
simple frond, undivided and divided; and those with a com-
posed frond, pinnate, sub-bipinnate, bipinnate, and supra-
decomposed. Under the first distribution with a frond
simple, undivided, are included, A. lanceolatum, cirriferum, be-
terophyllum, cirriferum, pedatum, palmatum, lingua, and dadatum :
and those with a frond simple, divided, are A. sphenophyllum,
caesalna, psammophyllum, dactylatium, digitatum, ferrugineum, and
polypodiodes. Under the second distribution, are com-pre-
hsended the pinnate, viz. A. aureum, virium, pustulatum, for-
bifolium caeruleum, marginatum, sanctum, platnerioid, and
trifoliatum; the sub-pinnate, viz. A. filipendulum, thallicrroid-
marus, lanceolatum, eucernen, and social tum; the bipinnate,
viz. A. acutatum, cruciatum, barbarum, cabalenum, viviparum,
valleum, simplex, petalotium, latifolium, villosum, unico-
formum, fruticatum, gramineum, and subbursatum. Gmelin omits
the viviparum, introduces the longifolium and filare, makes
some difference in the arrangement of the species, and refers
the acutatum to a class with a supra-decomposed frond.

Of these species, two only are natives of Great Britain, viz.
A. sphenophyllum, forked or horned fern, with fronds, naked,
linear, and lanceate, or jagged; the fructifications, in an
immature state, are in short indistinct lines or dots, resem-
bling an asplenium, but in an adult state, the lower surface
of the leaf is totally covered with brown dusty capsules;
from two to five inches high; found in clfts of rocks, and
old walls in Yorkshire, Wolvermore, Wales, and Scotland;
and A. ilexifera, or hairy fern, the POLYPODIUM
ilexifera of Withering, with fronds sub-bipinnate, the pinnae or
wings oppositely coaractate or united, obtuse or blunt, hir-
fute or hairy underneath, and quite entire at the base; the
ripe or Item is greenish, and not blackish purple, scarcely
more than a finger’s length; called A. alpinum by Bolton;
perennial, and flowering from July to September, found on
rocks in Wales. The A. marcesce, with fronds sub-bipinnate,
the pinnae oppositely coaractate, very hirtute underneath,
and a little toothed at the base, is a native of the southern
countries of Europe; but all the rest belong to hotter climates,
as the East or West Indies, Africa, and the southern prov-
ces of North America. The A. pustulatum, with fronds
heart-tongued, acuminate, quite entire, dotted above, resem-
bles harts-tongue, and is probably rather a species of poly-
pody. It is used medicinally in China, where it was
first remarked by J. Fothergill. Few of the species have
been introduced into gardens. Those of Europe may be
preserved in pots, filled with gravel and lime-rubbish, or
planted on walls and artificial rocks; but most of them, be-
ing natives of very hot climates, must be planted in pots,
and plunged into the back-pit. Martyr’s Miller.

ACROSTICUS is also a species of POLYPODIUM,
called Thylotepis, and a species of CANOTTIUS, called
Canopyara.

ACOSTLUM, in Ancient Naval Architecture, an
ornament of the prow, or forecafl of a ship, chiefly of
war; sometimes copied as a buckler, a helmet, or an ani-
mal, but more frequently a circular or spiral. The ancients
had divers decorations or additional parts to their ships,
called by a general name ἄφιετα; those on the prow were
more particularly called ἀφίετον, of which the extreme part
alone was denominated acrofotium.

To the acrofotia may be referred the ανταρκτας, men-
tioned by Bayius; and also those polished steel pieces re-
sembling a duck’s neck, used by the Venetians at the heads
of their gondolas.

The acrofotia were torn from vanquished ships, and fast-
ened to the conqueror’s, as a signal of victory. We fre-
quently find them represented on the reverses of ancient me-
dals. An acrofotium is also seen in the famous sculpture of the
apotheosis of Homer. The acrofotium was an ornament
on the medals of maritime towns, such as Sidon and Arados,
and designed to express naval victories.

ACROTADUS, in Ancient Geography, an island of
the Perian gulf, mentioned by Plato; suppos’d by others to
be Athothades, or a desert island, mentioned by Nearchus,
according to Arrian, and called Calcandrus.

ACROLEUTIC, from ακροτηριον and τος, end, among
Ecclesiatical Writers, denotes the end of a verse or psalm; or
something added thereto to be sung by the people.

In which sense acroleutic amounts to the same with acro-
felic, hypofosma, duplasma, epote, &c.

The gloria patri is by some writers called the acroleutic
to the psalms; because always used to be repeated by the
people at the end of each.

Hence the word acroleutic is sometimes also used as fy-
nonymous with doxology.

ACROTERI, in Geography, a small town in the is-

ACRTERIA, or ACROTERS, formed of ακροτηριον,
in Architecture, small pedestals, usually without bases, ancient
placed at the middle, and the two extremities, of pef-
ments; and serving alto to support statues.

Those at the extremes ought to be half the height of the
tympanum; and that in the middle, according to Vitruv-
s, should be one eighth part more.

Acroteria, sometimes also signify figures, whether of
stone, or metal, placed as ornaments, or crownings, on the
tops of temples, or other buildings.

Sometimes they also denote those sharp pinnacles, or
spicier battlements, which stand in ranges about flat build-
ings, with rails and ballasters.

Acroteria, among ancient Pluteæans, were used to de-
ote the great extremities of the body, as the head, hands,
and feet.

Aristotle also uses acroteria, for the tips or extreme parts
of the fingers, covered by the nails; sometimes also for the
eminentes of the bones.

ACROTERIASM was anciently used for the ampu-
tation of any extremity.

ACROTHYMA, in Surgery, the name of a large tu-
mor in the flesh, rising in the shape of a wart, though some-
times depressed and flat, called thymus. Heifier. See NÆVUS.

ACROTYNI, in Ancient Geography, a town placed
by Stephanus Byzaunt. on the top of Mount Athos. See Ac-
THEON.

ACRYDIUM, in Entomology, a name given by Deeger
to the Gryllus brevicornis, and the G. serratus of the Lin-
nean system. The former, is found in South America;
and the latter, at the Cape of Good Hope.

ACSA, a measure of capacity in ule both in Asia and
Egypt. See Log.

ACSOR, in Geography, a town on the river Nile in
Egypt, famed for its carthen ware.

ACSTED,
ACT

ACSTED, a town in the Duche of Bremen, in Germany, 24 miles N. of Bremen.

ACS is the name of a small town of Asiatic Turkey, in Natalia, 5 leagues west of Hick.

ACT, Actus, in general, denotes an effective exercise, or application of some power or faculty. In this sense all hands opposed to power, potentis, which is only the capacity of acting, but not the exertion of that capacity.

Though the word act, properly and primarily, he only applicable where the power might exist without being drawn forth into act; yet the schoolmen extend it further; defining it by the presence of any power or perfection, even though it could not be absent. In which sense, God himself is said to be a most pure act; because his perfectedness is always and necessarily present. And thus, form is called an act: inasmuch as the presence hereof completes the power and perfection of matter.—Even existence is termed an act; because, when this is given to a being, nothing further is wanted. The Greeks sometimes call all deinitus, a term denoting an actual possession of perfection, by the Latins usually rendered perfitubia.

Act and power are distinguished by writers on Ontology three ways: viz., as actual being is distinguished from a power to be; actual doing or action, from a power to do; or actual suffering or passion, from a power to suffer. See Watts's Ontology in Works, vol. p. 617.

Metaphysicians give various divisions of act; viz., into infinite, as the act of creating; and finite, as the act of moving.

—Trent, or those exercised in other beings, as heating; and inmanent, which remain in their own subject, as thinking.

See Action.

Act, in Logic, is particularly underfund of an operation of the human mind. Thus to discern, examine, and judge, are acts of the understanding; to affirm and infuse, are acts of the will. There are voluntary and spontaneous acts; the former are produced by the operation of the soul, the latter without its privity or participation.

Act, in a legal sense, is an instrument, or other matter in writing; of use to declare, or justify the truth of a thing. In which sense, feets, records, decrees, fentences, reports, certificates, &c. are called acts, authentic acts, solemn acts, &c. See Deed.

Act, in the University, a thesis maintained in public by a candidate for a degree; or, to shew the capacity and proficiency of a student in the University.

The candidates for a degree of bachelor and master of arts are to hold philosophy acts; those for bachelor of divinity are to keep divinity acts, &c.

At Oxford, the time when the masters or doctors complete their degrees is also called the act; which is held with great solemnity; at Cambridge they call it the commencement.

All is also a collegiate appellation for the person who proposes questions that are the subject of disputition in the exercises of the university schools. The persons with whom he contends in these questions are called opponents; and the disputation is propofed under the direction of the moderator at Cambridge. The distinguished men of the year appear eight times in this manner in the schools; twice as acts, and six times as opponents. One act and three opportunities are kept before the summer; and one act and three opportunities in the term following the summer vacation.

Act of faith, Auto da fe, in the Romish church, is a solemn day held by the inquisition, for the punishment of heretics, and the abolution of the innocent accused.

They usually contrive the auto to fall on some great festi-
to high, that the top of the flame seldom reaches higher than the feat they sit on, so that they rather seem roasted than burnt. There cannot be a more lamentable spectacle; the sufferers continually crying out, while they are able, misericordia por amor de Dios: yet it is beheld by all sexes, and ages, with transports of joy and satisfaction: this joy is not the effect of natural cruelty, but of the spirit of their religion; for the deaths of other malefactors are tenderly commemorated and lamented. Geddes's Mfe. Tracts, tom. i. p. 442. Limb. Hist. Inq. lib. iv.

Act of Grace. See Grace.

Acts also denote the deliberations and resolutions of an assembly, senate, council, or convocation; taken down by clerks, notaries, actuates, or the like, and entered in a register. Acts are also matters of fact transmitted to posterity in certain authentic books, or memoirs, as the acts of the Apostles, of the Martyrs, &c. to this general class belong acts of parliament, which are called statutes; acts of the Royal Society called transactions; those of the late royal academy of sciences at Paris, called memoirs; those of the societies of Leipfic, &c. called simply acts, acta eruditorum, &c.

Acts of the Confabolary, acta consiliorii, the edicts and declarations of the council of state of the Roman emperors. The senate and soldiers often swore, either through abject flattery or by compulsion, upon the edicts of the emperor, as we do upon the Bible; and the name of Apidian Merlin was erased by Nero from the register of senators, because he refused to swear upon the edicts of Augustus.

Acts of Council, differed from canons, in that the latter contained only the results, or the laws and regulations agreed on, and drawn up in form; whereas the acts included the preceding debates, motions, &c.

In the first collections of councils, only the bare canons were delivered. Afterwards they began to give the acts as well as the canons.

Hence we have two kinds of synodical collections: one containing all the acts, or transactions, relating to matters of faith and doctrine; the other, containing only the canons relating to discipline, is called the book of canons.

Acts of the people, acta populi, among the Romans, were journals or registers of the daily occurrences, as assemblies, trials, executions, buildings, births, marriages, deaths, &c. of illustrious persons, and the like.

These were otherwise called acta publica, and acta diurna, or simply acta.

The acta only differed from annals, in that only the greater and more important matters were in the latter, and those of less note in the former. Tacitus Annal. xiii. 31.

Their origin is attributed to Julius Caesar, who first ordered the keeping and making public the acts of the people; some trace them higher, to Servius Tullius, who, to discover the number of persons born dead, and alive, ordered that the next of kin, upon a birth, should put a certain piece of money into the treasury of Funo Lucina; upon a death, into that of Venera Libitina; the like was also to be done upon assuming the toga virilis, &c. Under Marcus Antonius, this was carried farther; persons were obliged to notify the birth of their children, with their names and surnames, the day, confin, and whether legitimate or spurious, to the prefects of the erarium Saturni, to be entered in the public acts; though before this time the births of persons of quality appear to have been thus registered. Suetonius. Pith. Lex.

Acts, Public. The knowledge of public acts has been erected into a peculiar science, called the diplomatic, of great importance to an historian, statesman, chronologer, and even critic. The preservation of them was the first occasion of erecting libraries.

The style of acts is generally barbarous Latin. Authors are divided as to the rules of judging of their genuineness, and even whether there be any certain rules at all? F. Germon will have the greater part of the acts of former ages to be spurious. Fontainis affirms, that the number of forged acts now extant is very small. It is certain there were severe punishments inflicted on the forgers and falsifiers of acts.

The chief of the English acts, or public records, are published by Rymer, under the title of Padrata, and continued by Sunderland: an extract whereof has been given in French by Rapin, and translated into English, under the title of Acta Regum. Great commendations have been given to this work, and some exceptions made to it: as that there are many spurious acts, as well as errors in it; some have even charged it with falsifications.

The public acts of France fell into the hands of the English after the battle of Poitiers, and are commonly said to have been carried by them out of the country. But the tradition is not supported by any sufficient testimony, and has even been shewn by M. Bruffel to be false.

Acts of the Senate, acta senatus, among the Romans, were minutes of what passed, and was debated in the senate-house.

There were also called commentarii, and by a Greek name ἐφηµερία. They had their origin in the confabulation of Julius Cæsar, who ordered them both to be kept and published; and there was an officer, who was himself a senator, whose province it was to compose these acts. The keeping them was continued under Augustus, but the publication was abrogated. Afterwards all writs, relating to the decrees or sentences of the judges, or what passed and was done before them, or by their authority, in any cause, were called by the name acta. In which sense we read of civil acts, criminal acts, interventive acts, acta civitatis, criminalis, interventiemi, &c.

Acts, Clerk of the, is an officer of the navy. See Clerk.

Acts of the Apostles, a canonical book of the New Testament, which contains great part of the lives of St. Peter and St. Paul, and of the history of the Christian church; commencing at the ascension of our Saviour, and continued down to St. Paul's arrival at Rome, after his appeal to Cæsar, comprehending in all about thirty years. St. Luke has been allowed by all antiquity to be the author of this book, and his principal design in writing it was to furnish an authentic history of the first plantation of Christianness; and it thus serves to obviate the false acts, and false histories, which were afterwards differeled through the world. The exact time of his writing it has been ascertained with a very considerable degree of accuracy; for it must have been at least two years after St. Paul's arrival at Rome, because it informs us that St. Paul dwellt two whole years in his own hired house; perhaps he wrote it while he remained with St. Paul, during the time of his imprisonment.

It was written, according to Mill, in his Prolegomena, in the year 64. And Dr. Lardner (works, vol. vi. p. 145.) observes, that it could not have been written till after St. Paul's confinement at Rome was come to a period, which he supposes to have ended in the former part of the year of Chrill 63; and he thinks it probable, that St. Luke finished this book the same, or the next year, either at Rome or in Greece. That St. Luke was the author of it appears from the general consent of the ancient Christian writers:
ACT

agrees 3. the The St. and the prophecies the alfo the 14, could this was aicertaining faced. That hillory later grofs under certain alfo He ufc. not infcribed not for e. logues about the the portance St. or putcd. part nclefs ihe Chrilliaiiity, might St. and the Septuaigint truth hisferies, and the doctrine, and the latter has been recorded from the Old Testament.

The truth and divine original of Christianity may be deduced from the history of the Acts of the apostles. The general and particular doctrines contained in this book are to be considered, and the evidence which the apostles gave of their doctrine, in their appeals to prophecies and miracles, and the various gifts of the Spirit, were so numerous and so strong, and so generally accepted by all persons, that the truth of the religion, which they taught, cannot be reasonably disputed. The history itself is credible. It was written by a person who was acquainted with the various circumstances which he relates, and who was both able and inclined to give a faithful relation of every particular that occurred. St. Luke was a companion of the apostles; he was himself an eye and ear witness of the facts, and personally concerned in many of the incidents which he records. In the history itself there are no inconsistencies or contradictions. The miraculous facts related in it are neither impossible, when we consider the divine power, to which they are ascribed, nor improbable, if we attend to the grand design and occasion of them. The writer appears to have been honest and impartial; for he has recorded the objections made to Christianity, both by Jews and Heathens, and the reflections which enemies cast upon the religion itself and the first preachers of it. He has not concealed the weaknesses, faults, and prejudices either of the apostles or of their converts. The occasional hints that are dispersed through the epistles of St. Paul, harmonize with the facts recited in the history; insomuch that the history is the best guide to the study of the epistles. The other parts of the New Testament agree with the history, and confirm it. The Gospels close with references to the facts recorded in the Acts; and the epistles suppose that these facts had actually occurred which the history relates. The incidental circumstances mentioned by St. Luke correspond so exactly, and without any previous view to such a correspondence, and in cases where it could not possibly have been premeditated and precontrived, with the accounts that occur in the epistles, and with those of the best ancient historians, both Jews and Heathens; that no person who had forged such an history, in later ages, could have had the same external confirmation; but must have betrayed himself, by alluding to some customs or opinions since sprung up; or by misrepresenting some circumstances, or using some phrase or expression, not found in use. The plea of forgery, therefore, in later ages, cannot be allowed: and if St. Luke had published such a history at so early a period, when some of the apostles, or many other persons concerned in the transactions which he has recorded, were alive, and his account had not been true, he would only have exposed himself to an easy confutation, and to certain infamy. If any history of former times deserves credit, the Acts of the Apostles ought to be received and credited. And if the history of the Acts of the Apostles be true, Christianity cannot be false. For a doctrine so good in itself, and attended with so many miraculous and divine testimonies, has all the possible marks of a true revelation. See Benfon, ubi supra, p. 310—318; and an excellent work, distinguished by acute and original reasoning, and amplifying the argument above suggested, by Archdeacon Paley, entitled Horae Paulinianae, 8to. 1790.

There are also several spurious acts of the Apostles: such as, 1. The acts of Abdias, or the History of the Twelve Apostles, said to be composed by him in Hebrew, translated into Greek by his disciple Eutropius, and thence into Latin by Julius Africanus. 2. The acts of St. Andrew, received by the Ebionites, Manichees, Apollonies, and Orientalists. 3. The acts, received by the Ebionites, and mentioned by Epiphanius as a gross forgery. 4. The acts of St. John, forged by Lucius. 5. The acts of the Apostle, under the names of Lucius, Lenticus, Leonidas, and Lentichus, names of the same person who lived in the fourth century, and who was a Manichee, and probably the father of those heretics, called by St. Austin, Seleucians from the name Seleucia, which Mr. Jones thinks to be the same with Lucius. This book contained the acts of John, Andrew, Thomas, and others. 6. The acts of St. Matthias were probably written by Lucius Charinus under this apostle's name, to which ends we may refer the acts used by the Manichees. 7. The acts of Paul, which Mill in his Prolegomena, sect. 130, supposes to have been compiled by some faithful Christians, about the year of Christ 69, to supply the imperfect accounts in the acts of the apostles, written by St. Luke, and which Whiston regards as in some sense a sacred book; but which Eusebius reckons to be spurious, and Philastrius condemns as a sily book, abounding with strange stories. 8. The acts of Paul and Thecla, which was the work of some weak presbyter of Asia, and never had any authority in the Christian church. It is not certain when these acts were composed;
The acts of St. Peter, the travels of Peter, or the recognition of Clemens, which are rejected by Eusebius, Athenhnius, Jerome, Epiphanius, &c. as apocryphal. 10. The acts of St. Philip, which were probably the work of Lucius Charinus, or an appendage to his work. Fabricius (Codex Apoc., Nov. Test. tom. ii. 565.) mentions a MS. of some acts under the name of Philip, in the Vatican. 11. The acts of Seclusus, the name with those of Lucius, already mentioned. 12. The acts of Thomas, mentioned by Epiphanius, Athenhnius, and Gelasius, are supposed by Fabricius, Mill, and others to be the same with the acts of Lucius; but Mr. Jones supposes, that as it was used by some sects of the Gnostics, who sprang up at an earlier period, it was interpolated and altered by Lucius. But the work is unquestionably apocryphal. See on this subject Jones’s Canon, vol. i. paffim; and Lardner’s Works.—Index under Acts.

Acts of Pilate, denote certain memoirs or reports concerning the trial and death, the resurrection and ascension of Jesus Christ, which were transmitted by Pilate to the emperor Tiberias, and communicated by him to the senate, Justin Martyr, in his Apology (Num. 386. p. 65. and Num. 48. p. 72. Benced.) prevented to Antoninus Pius, and the senate of Rome, about the year 150, after having mentioned on one occasion some of our Lord’s miracles, and on another his crucifixion, and some of the attendant circumstances, adds: “and that these things were so done, you may know from the acts made in the time of Pontius Pilate.” Tertullian adds, in his Apology, (c. 21. p. 22.) about the year 200, having spoken of our Saviour’s crucifixion and resurrection, his appearance to the disciples, and his ascension to heaven in their sight, subjoins this remark: “of all these things relating to Christ, Pilate, in his confidence a Christian, sent an account to Tiberias, then emperor.” In another place he says, that by an ancient decree, no person should be acknowledged as a deity, unless he were first approved by the senate. Tiberias having received from Pella the account of such things as manifested our Saviour’s divinity, proposed to the senate, recommending the proposal by his own vote, that he should be placed among the gods. The senate refused, because he had himself declined that honour. Nevertheless the emperor perfided in his own opinion, and ordered that if any accused the Christians they should be punished. Eusebius, in his Ecclesiastical History, (lib. ii. cap. 2.) relates the fact, and cites the authority of Tertullian. Many learned men have objected to the original testimonies of Justin Martyr and Tertullian. Dr. Lardner has investigated the subject with his usual accuracy and impartiality. He first alleges that Justin Martyr and Tertullian were writers of good repute. He then shows that it was the custom of the governors of provinces to compose acts, memoirs, and commentaries of the remarkable occurrences that happened in the places where they presided; and these acts or registles were considered as public authorities, and therefore more decisive and satisfactory than some other accounts. Of this circumstance the ancient fathers were well apprised; and Eusebius admits the truth of what they report. In the time of the persecuting emperor Maximin, about A. D. 307, the heathen people forgod acts of Pilate, derogatory to the honour of our Saviour, which were very diligently circulated; to unsettle Christian, or discourage them in the profession of their faith. The edict to this purpose was so negligently or ignorantly written, that our Saviour’s death was referred by it to the fourth consulate of Tiberius, i.e. to the seventh of his empire, which is eleven years before our Saviour’s passion, and five before Pilate was made governor of Judea. See Euseb. H. E. L. i. c. 9. i. xix. c. 4. 56. Ruffinius, lib. i. c. 5. &c. It was also customary for governors of provinces to send to the emperor an account of remarkable transactions that occurred in the places where they presided. We may therefore conclude, though the acts of Pontius Pilate and his letter to Tiberius, which we now have (see Fabric. Cod. Apoc. Nov. Test. p. 592. 972.) are manifestly spurious, that Pontius Pilate did compose some memoirs concerning our Saviour and send them to the emperor, whether Justin Martyr and Tertullian have given a just account of them or not. Dr. Lardner, after replying to other objections that have been urged against the relation of these ancient fathers, concludes with observing that they deserve some regard. See Lardner’s Works, vol. vii. e. 2. p. 231. &c.

Acts, in Poetry, are certain divisions, or principal parts, in a dramatic poem, contrived to give tone and repulse both to the actors and spectators. In the interval between the acts the stage remains empty, and without any action visible to the spectators; though it is supposed all the while that there is one proceeding out of sight. It is not, however, merely for the sake of the repulse that these acts are observed, but to give transactions a greater degree of probability, and render the intrigue more affecting. For the spectator, who sees the action prepared that is to pass in the interval, cannot forbear acting; in his imagination, the part of the absent actors; by which means he is the more agreeably surprised, when a new act coming upon the stage, he sees the effects of that action, which before he could only guess at. To this it may be added, that authors contrive to have the most dry and difficult part of the drama transacted between the acts, that the spectators may have no notion of them, excepting what their fancy presents them with at a distance; and that nothing may appear upon the stage but what is natural, probable, and entertaining. In this respect, says an approved writer, a dramatic or epic poem ought to resemble a sentence or period in language divided into members, that are distinguished from each other by proper pause; or it ought to resemble a piece of music, having a full close at the end, preceded by imperfect closes that contribute to the melody. See Elkou, of Criticism, c. 22.

The ancient Greek poets were unacquainted with this division of a play into acts, though their episodes, or choruses, served almost the same purpose. The word act never occurs in Ariosto’s Poetics, though he defines exactly what it is, as a part of the Drama. It is true the Greeks considered their pieces as consisting of certain parts or divisions, which they called προφακς, επιθές, καταλήψις, and κολλαθής; but there were no real interruptions or divisions answering to them in the representation. With them the stage was never empty, nor were the performers idle; so that when the choruses were incorporated in the piece, as in some of the tragedies of Sophocles, it may be said strictly to consist of only one act.

The Romans first introduced acts into the drama, and filled up the intermediate space of time between these divisions with a chorus, a dance, or a song; and in Horace’s time, the five acts were established as a law. This appears from the following verses in his De Arte Poet.

"Nec
This number was constant in the comedies of Terence, and tragedies of Seneca; and the law quoted unceasingly to this day; though it seems to derive its force from the authority of Horace, rather than that of reason or nature. All plays are deemed irregular, that have either more or fewer than five acts. Some, indeed, have asserted, that every just action consists of five distinct parts; and have undertaken to mark out the precise share of the action, which each of the five acts ought to bear. The first, they say, is to propose the matter or argument of the fable, and to shew the principal characters. This should be so managed as to awaken the curiosity of the spectators, and also furnish them with materials for understanding the sequel. It should make them acquainted with the personages who are to appear, with their several views and interests, and with the situation of affairs at the commencement of the play. In former times, the exposition of the subject was made by a prologue, or by a single actor, who attempted to give full and direct information to the spectators. Some of these last's, and Euripides's plays are opened in this inartificial manner, which is now totally abolished. The second act is to bring the affair or business upon the carpet. The third, to furnish obstacles and difficulties. The fourth, either points out a remedy for these difficulties, or finds new ones in the attempt. During these acts, the plot should gradually thicken; the action of the play ought to be advancing, and, as it advances, the suspense and concern of the spectator should be raised more and more. It is the great excellence of Shakespeare, that his scenes are full of sentiment and action; and not of mere discourse; whereas it is frequently a fault of the best French tragedians, that they allow the action to languish for the sake of a long and artful dialogue. The fifth act puts an end to all by a discovery. This is the feat of the catastrophe, or the unravelling of the plot, in which the art and genius of the poet should be most fully displayed. See Catastrophe. However, it is certain that, on the principles of the great master of the drama, Aristotle, we may have a just and regular play, though it be only divided into three acts; and the number may be varied according to the taste of the author, or the nature of the subject; since the division is purely arbitrary. Nevertheless, every act ought to close with some incident that makes a pause in the action; without which there can be no pretext for interrupting the representation. Milton has deviated from this rule at the close of the first, seventh, and eleventh books of his Paradise Lost: in the first of which influences he seems to have copied the Iliad; the second, the Iliad, books of which are divided in a similar manner. Homer, in the Iliad, has paid no great attention to this rule. The acts of a drama are divided into scenes. Metastasio, in conformity to the precept of Aristotle, with regard to the construction of a fable (see Act and Tragedy) divided his melodramas, or operas, into three acts; in order to constitute the beginning, middle, and end, which the flagrant required. But at present this wise and rational design is violated at our lyric theatre; by compounding all the incidents of a drama, written in three acts, into two; by which means the bufinefs of the piece is so precipitated or mangled, that the events lose all appearance of probability, and the spectator all chance of illusion. On this occasion, however, the trouble and expense of a third dance are spurn out to such a length as to prejudice all desire in the most dissipated part of the public to be kept longer from home.

ACTA, in Ancient Geography, a town of Acrania, mentioned by Stephan. Byzant. and called a port in the Periplus of Scithyx. ACTa is also a town of Magna Graecia.

ACTAEON, in Antiquity, one of the fifty Nereids.

ACTAEA, or ACTERIEUS, was also one of the nine curious and malicious genii, called by the Greeks Telchines.

ACTAEON, in Botany, the Christophorion of Townefoot, and in the Linnean system, a genus of the polycarpar renogynia class and order, belonging to the natural order of multigynia and renunculace of Juliff. Its characters are, that the calyx is a perianthium of four leaves, with roundish, obtuse, concave, and caduceous leaves; the corolla has four petals, acuminate at both ends, longer than the calyx and caduceous; the stamens consist of numerous, usually about thirty, capillary filaments, broader at the top; the anthers are roundish, twin and erect; the pistillum has a superior ovate germen, no style, and a thickish, obliquely depressed stigma; the pericarpium is an oval-globe, smooth, one-furrowed and one-celled berry, and the seeds are many, semi-ornicibrac and lying over each other in two rows. There are four species: 1. A. ficaria, or common herb christophel, which grows naturally in the northern counties of England, and rises two feet and an half in height, with the foot-flakes of the leaves springing from the root, and dividing into three smaller foot-flakes, each of which divides again into three, with three lobes each; the flowers grow in ramose spikes, and are of a pure white: they appear in May and June, and are succeeded by black shining berries, about the size of peas, which ripen in autumn. This plant is a powerful repellant; and the root has been administered internally in some nervous cases; but should be used with caution. Datur, says Pliny, (H. N. v. ii. p. 253. Ed. Hard.) acetaba plao interrioribus feminarum morbis. The berries are poisonous, and to the indirect use of them some have referred the explanation of the fable of Actaeon, and to this they have also applied the Latin adage;

—Hee negar sol, hunc tu Romane caveto.

Hor. Sermon. I. i. sat. 4. v. 85.

The juice of these berries, with alum, yields a black dye. Toads are said to revolt to this plant, being allured by its fettid smell, which, as Dr. Withering observes, may be owing to the damp, shady situation in which it is found. This herb is poisonous to cattle, but it is happily scarce in England, and found only in the woods. Of this species there are three varieties, viz. the nigra, or common black-barried herb christopher, or horseberry; the alba or American herb christopher, with white berries, whose leaves are held deeply indented at the edges, flowers in a more compact spike, and roots composed of thick knobs; and the rubra, with red berries, differing only in the colour of its fruit. 2. A. racemosa, or American black or wild snakeroot, with large compound leaves, rising immediately from the root, and branched like the first, flower-rams ascending to the height of four or five feet, and white flowers in a long spike, reflex at the top, which appear in June or July, but not perfecuting feeds in England. It deferves, on account of its flowers, a place in shady borders among shrubs, and will require no other attention.
tention than the thrubs themselves. This species is a native of North America; and the root is much used in that country, and said to be an antidote to poison, or the bite of the rattlesnake. 3. A. japonica, or Japanese herb christopher, differs from the second in having simple, not pinnate leaves; it has heart-shaped leaflets, petioles longer than the leaflets, and sessile flowers. 4. A. effusa, or rough-leaved herb christopher, has a thorny climbing item, subulate leaves, white flowers, and linear spikes, quadrifid corolla and calyx, more than fifty flaminia, and a gibbon bone, without juice. This species is a native of China near Canton, and the Chinese use the rough leaves in polishing, particularly their tin ware. These plants may be propagated by seeds, sown on a sandy border soon after they are ripe, and transplanted in the following autumn into a sandy border, where they are to be left to flower. Martyn's Miller's Dict. in the Linnaean System, by Gmelin, there are five species.

ACTAE, in Entomology, is a species of Papilio, with expanded wings, brown above, the anterior marked with two ocelli and two white points, and the hinder marbled beneath. It is found in the southern part of Russia.

ACTAEA Cinetifluga. See Chicifluga.

ACTAEA, in Ancient Geography, a name formerly given to Attica. Pliny (i. 4. 7.) says it was also called Acte. Paulus. Attic. cap. xi.

ACTAEON, in Fabulous History, the son of Arilus and Autonice, and grandson of Cadmus. While he was pursuing his favourite exercise of hunting, he is said to have looked on Diana, when she was bathing, to have been transformed by her into a stag, and devoured by his own dogs. The moral of the fable is applied to those who ruin themselves by keeping packs of dogs, or too curious researches into nature.

ACTAEON is also the name of one of the horses that drew the chariot of the sun, in the fall of Phaeton. Acteon formed of actu, a ray of the sun, signifies luminous, and takes its name from the splendour of the sun.

ACTAEON, in Natural History, a species of Scarabeus, or beetle, called by Swammerdam Rhinaeoceris; the Emma of Muregaves, with a smooth body, bicorne thorax, the horn of the head unidentate, with a bifid apex, and smooth elytra, the horns of the thorax are turned forward, and are conic. It is found in America, and is the largest of all insects, except the cancer and monocolus.

ACTAEON is also a species of Papilio, with triscutated black wings, black at the apex, and gold-coloured beneath, with very small black spots.

ACTANIA, in Ancient Geography, an island mentioned by Pliny (H. N. tom. i. p. 231.) in the North Sea. It is situated to the west of Holstein and Denmark, not far from the mouth of the Elbe and Elbe; and is now called Heligoland.

ACTE, δηνα, denoted a peninsula. It was also a name given to the fen coasts about Mount Athos, in which were fixed townsmen mentioned by Thucydides, lib. iv. p. 302. Ed. Duker.

ACTE, in Botany, the elder tree.

ACTIAE Games, Ludi Actiae, in Antiquity, solemn games instituted, or, according to some, only restored by Augustus in memory of his victory over Mark Antony at Actium. Stephanus (tom. i. p. 56.) and some others maintain, that they were held every third year; but the more common opinion is that of Strabo, who says (Geog. tom. i. p. 501.) that they only returned every fifth year, and were celebrated in honour of Apollo, since termed Actia. By the way it is a great mistake in some authors to imagine, that Virgil intimates their having been instituted by Aeneas, from that passage, Æn. iii. 280.

"Aediasque Ilias celebratus litora ludis."
with small papilliform oblong tentacula; found adhering to flones on
the shores of the Red Sea. 15. A. viridis, green and brown, with tentacula of the length of its own
diameter; found attached to subaqueous flones at Alexandria
in Egypt, and called by the Arabs karofa. 16. A
priapus, with a cylindric body, dilated at the base, and
spotted tentacula; found adhering to tellacese fish in the
Red Sea, near the city Ghomfeda. 17. A. candida,
smooth with a wrinkled foramen, and flexuous briskly tenta-
cula; ranged on the upper margin. 18. A. bisornis, smooth,
of an hemispheric oval figure. 19. A. superus, with a cylind-
ric body plane above, and six appendices to the orifice;
found, as well as the two former species, in the Northern
Ocean. 20. A. Caryophyllus, red and brown, with small
penceliform tentacula; found in the British Sea. 21. A
iris, with body and tentacula obtuse and cylindric, the ex-
terior red, the interior bluish, and the centre red. 22. A.
Picella, with longitudinal ridges transferably fringed, and
cylindric obtuse annulated tentacula; found, as well as the
former species, in the Norwegian Sea. 23. A. pusilla,
elliptic and smooth, with a double order of rays, the exter-
ior of which are black at the apex, about the size of a large
pea; found in the ocean about the 57th degree of lati-
tude.

The actinia fulcata of Pennant, and cerea of Solander and
Ellis, which some suppose to be a variety of the A. unduta,
is the HYDRA cerea in the Linnean system by Gmelin.
Pennant describes it as having a body marked with trifur-
cated sulci, and summit surrounded with long slender
tentacula, from 120 to 120 in number; the colour of
the body is pale chefsnut, and of the tentacula a sea-green varied with purple; it is found on the rocks
of the Cornish and Anglesea coasts. The A. peduncu-
lata of Pennant, or A. bellis of Solander and Ellis, is the
HYDRA bellis of the Linnean system. According to the
description of Pennant, it has a long cylindric stalk, ex-
 panding at top and tuberculated: the tentacula are disposed
in several ranges, short, and when open form a radiated an-
gular circumference, like a beautiful flower, with a smooth
diagonal pinc' of which the stalk is a red and
that of the tentacula varied with several colours. This
species, he says, is retractile, and inhabits Cornwall. The
A. verrucosa of this author, or A. gemmatea of Solander
and Ellis, is the HYDRA gemmatea of Gmelin's Linnean
system. According to Pennant, it has a long cylindric stalk, and is
marked with elegant small tubercules, disposed in straight lines
from top to bottom; the circumference of the mouth is
frilled, surrounded with short petals, like those of the fun-
flower, and those again with white tentacula, barred with
brown. When drawn in, it assumes the form of a bell; and
the lines of the tubercules converge to the centre of the
summit. Its body is a pale red; it inhabits Cornwall. The
A. pentapetalis, or cinquefoil of Pennant, is the A. diunbuts
of Ellis, with a circular contracted mouth; the disc divided
into five lobes, covered with several series of short fruting
tentacula, the flalk short and thick; when contracted it
assumes the form of a long white fig; it inhabits the rocks
near Haltings, Suffolk. The A. hemispherica, or button of
Pennant, is the A. melymbryonantium of Solander and Ellis,
and the HYDRA melymbryonantium of the Linnean system.
It has a smooth short thick flalk; the edge of the disc
surrounded with a single row of tubercules, the tentacula
numerous and slender; the colour a dull crimson; the body
retractile, and flinging itself into the form of a conoid bot-
ton. It inhabits most of our rocky shores. Pennant's
Zoology, vol. iv. p. 49. &c. The actinia have only one
aperture both for the mouth and anus; they feed on shell
and other small fish and marine animales, and are them-

ACTINOLITE, in Mineralogy. See STHRAUSENT.

ACTION, in a general sense, denotes the operation or
action of an act of power, and is synonymous with ACT.

Grammarians, however, introduce some subtle distinctions
between these two terms: restricting the former to ordinary
manifestation; and the latter to those which are more signal.
The former, say others, relates chiefly to the person that
acts, and the latter to the effects produced; and is therefore
considered as the attribute of the other: e.g. "Preter
preference of mind in all your actions; and take care that
they are all acts of equity." Some schools, in an attempt to
express the nature of action by a manifestation of the power
or energy of a substance, made either within or without it.

Accordingly it is controverted among them, whether or
not action, thus taken, be a thing distinct both from the
agent, and the term or effect. The modal stand for the
affirmative, and the nominal for the negative. These
latter observe, that the action may be considered two ways,
actively and connotatively. In the former sense it is what
we call a cause, or what may act; and in the latter, it is
the fame cause, only considered as acting, or connoting the
effect it produces.

Actions are divided with respect to their principle, into
UNIVOCAL, where the effect is of the fame kind with the
cause; as the production of man by man; and EQUIVOCAL,
where it is different, as the suppos'd production of frogs by
the fun,—and again into INVENOMENT; as nutrition,
respiration, the action of the heart, &c., and NOT-VITAL,
as heating.

With respect to their subject, actions are divided into
INVENTARIOUS, where which are received within the agent that pro-
duced them; as are vital actions, cogitation, &c. and TRAN-
SMISSION, which passes into another, as a father loves his son,
and feeds and clothes him, &c. Actions are also natural, as
fire hardens clay; supernatural, as raising the dead; volun-
tary, as the potter's moulding his clay; and accidental, as a
person's heedlessly dropping a glass and breaking it; neces-
sary, as the fun warms the earth; and free, when a person
chooses what food he likes, and eats it when he pleases.

See LIBERTY and NECESSITY.

In respect of duration, actions are again divided into
INVENTARIOUS, where the whole effect is produced in
the same moment, as the creation of light; and SUCCESSIVE,
where the effect is produced by degrees; as corruption,
fermentation, purfication, diffutation, &c.

ACTION, in Physiology, is applied to the actions or func-
tions of the body, which are divided into the vital, natural,
and animal. The vital are such as are essential to the sub-
histence of the individual; such are the motions of the heart
and lungs, the secretion of spirits in the cerebellum, on
which the motions of the heart and lungs depend; and the
circulation of the blood and fluids in their proper vesels.
Pulsiation and respiration are the external signs of life.

The natural actions are such as are necessary to the con-
tinuance of the animal, but not so immediately, but that it
may subsist some time under a supposition of them; as the
digestion of the aliment, and its conversion into blood.

Under animal actions are comprehended those which
constitute the senses of touch, taste, smell, vision, hearing,
perception, imagination, memory, judgment, ratiocination,
affections of the mind, and voluntary motion; which are not absolutely necessary to the life of the animal, but conducive to its comfortable existence.

In the year 1752, Dr. White published an ingenious performance, under the title of an Essay on the vital and other voluntary Motions of Animals, 8vo.; and in the same year Dr. Simpson also published a book on Vital and Animal Actions, 8vo.

Action, in Mechanics, denotes either the effort which one body or power exerts against another, or the effect resulting from such effort: or more accurately, the motion which a body really produces, or tends to produce, in another. The action of a body becomes apparent only by its motion; and we cannot affix any precise idea to the term action than that of actual motion, or a simple tendency to motion. Leibnitz and his disciples, for want of duly attending to the proper and discriminating idea of the word action, have perplexed themselves and others with unprofitable and indecisive disputes concerning vis viva, and vit mortua. See Force.

The Cartesians resolve all physical action into metaphysical. According to them, bodies do not act upon one another; but the action proceeds immediately from the Deity: the motions of bodies, which seem to be the cause, being only the occasions of it. See Occasional Cause. Action is either instantaneous or continued; that is, either by percussion, or by pressure. These two sorts of action are heterogeneous quantities, and are not capable of mutual comparison any more than a line can be compared with a surface, or a surface with a solid. The least degree of percussion may be made to overcome the pressure of the greatest weight. These actions, therefore, cannot be measured one by the other; but each of them must have a measure of its own kind, as solids are measured by solids, and surfaces by surfaces; because time is concerned in the one, but not in the other.

It is one of the laws of nature, that action and reaction, are always equal, and contrary to each other.

If a body be urged by equal and contrary actions, it will remain at rest. But if one of these actions be greater than its opposite, motion will ensue towards the parts least urged.

It is to be observed, that the actions of bodies on each other, in a space that is carried uniformly forward, are the same as if the space were at rest; and any powers or forces that act upon all bodies, so as to produce equal velocities in them in the same, or in parallel right lines, have no effect on the mutual actions, or relative motions. Thus the motions of bodies on board a ship, that is carried steadily and uniformly forward, are performed in the same manner as if the ship were at rest. The motion of the earth round its axis has no effect on the actions of bodies and agents at its surface, except so far as it is not uniform and rectilinear. In general, the actions of bodies upon each other depend not upon their absolute, but relative motion.

For the actions of powers, see Friction, Force, Mechanics, Motion, Power, and Resistance. For the laws of the action of fluids, see Fluid, and Specific Gravity.

Action, quantity of, in Mechanics, on expression used by M. de Maupertuis, in the Mem. of the Acad. of Sciences of Paris for 1744, and in those of Berlin, for 1746, to denote the continual product of the mass of a body, by the space through which it runs, and by its velocity. He lays it down as a general principle, that, whenever any changes happen in nature, the quantity of action necessary to produce this change is always the least possible. And this, he says, is a law indicating the highest wisdom. This principle he applies to the investigation of the laws of refraction, the laws of the collision of hard and elastic bodies, and even the laws of rest, as he calls them, that is of the equilibrium or equipollency of pressures; and, thus investigating the laws of motion, referring these and the laws of equilibrium to the same principle, and connecting the metaphorical consideration of final causes with the fundamental doctrines of mechanics, he deduces what he conceives to be a stronger proof of the existence of a Deity, or of a first intelligent cause, than the other arguments commonly adduced, and derived from the order of nature.

It may be observed, however, that the quantity of action, according to the definition of M. de Maupertuis, is in reality the same with the product of the mass into the square of the velocity, when the space passed over is equal to that by which the velocity is measured; and therefore the force or quantity of motion will be proportional to the mass multiplied by the square of the velocity; since the space is measured by the velocity continued for a certain time.

In the same year that Maupertuis communicated his principle, Professor Euler also demonstrated, in the supplement to a treatise intitled Methodus inveniendi Linias curvac maximi vel minimi proprietate guidentes; that in the trajectories described by bodies urged by central forces, the velocity multiplied by what the foreign mathematicians call the element of the curve, is always a minimum; which Maupertuis considered as an application of his principle to the motion of the planets. For the manner in which this principle of a minimum may be deduced from the Newtonian theory of refraction; see Refraction.

Action, in Ethics, or moral Action, is a voluntary motion of a creature capable of distinguishing good and evil; whose effect, therefore, may be justly imputed to the agent.

A moral action may be more fully defined to be whatever a man, considered as endued with the powers of understanding and willing, with respect to the end he ought to aim at, and the rule he is to regard in acting, resolves, thinks, does, or even omits to do; in such a manner as to become accountable for what is thus done or omitted, and the consequences thereof.

In the strict philosophical sense, says Dr. Reid (Essays on the Active Powers of Man, p. 97) nothing can be called the action of a man, but what he previously conceived, and willed or determined to do. In morals the word is commonly employed in this sense, nor is any thing imputed to a man as his doing, in which his will was not interposed.

The foundation, then, of the morality of actions is, that they are done knowingly and voluntarily; and all moral actions may be divided, with respect to the rule, into good and evil.

But when moral imputation is not concerned, many things are called the actions of a man, which he previously neither conceived nor willed. Hence the actions of men have been distinguished into three classes, the voluntary, the involuntary, and the mixed. By the last are meant such actions as are under the command of the will, but are commonly performed without any interposition of the will. See Active Power, Motive, Principles of Action, and Virtue.

Action, in Oratory, is an accommodation of the person of the orator to his subject; or, a management of the countenance, voice, and gesture, suited to the matter spoken or delivered.

Action makes one of the greatest branches or divisions of rhetoric. The ancients usually call it Pronunciation.
Action is a collateral or secondary method of expressing our ideas; and is susceptible of a kind of eloquence as well as the primary. In the infancy of language, when words were few, or not easily connected, men would naturally recur to action for explaining and expressing their conceptions; and they would labour to make themselves understood, by varying their tones of voice, and accompanying their tones with the most significant gestures. At this day, when persons speak in a language which they possess imperfectly, they have recourse to all these supplemental methods, in order to render themselves more intelligible. Hence, in the gradual improvement and extension of language, a warm imagination would introduce into discourse a variety of tones, and a considerable degree of action. Thus Dr. Warburton accounts for so much speaking by action, as we find among the Old Testament prophets. Among the northern American tribes certain motions and actions are adopted in order to explain their meaning on all great occasions of intercourse with one another. The Chinese find it more easy to express different ideas by a variety of tones than to contrive words for all their ideas. The Greek and Roman languages also were pronounced with more numerous inflections of voice, and more animated gestures than any to which we are accustomed. Accordingly we find, that action was treated of by all the ancient critics, as the chief quality in every public speaker; and the orators and players of Greece and Rome were dilligently by the reverence of their action. This is, in all cases, an address to the external senses; which it endeavours to move, and bring into its party by well-concerted motion and modulation; at the same time that the reason and understanding are attacked by force of argument. Accordingly, Tully very pertinently calls it \textit{firmo corpori, the discourse of the body}; and \textit{corporis eloquentia, the eloquence of the body.} The Roman mimes and pantomimes, we read, had such a compass even of mute action, that voice and language seemed ufell to them; they could make themselves understood to people of all nations; and Roscius, the comedian, is particularly famed, as being able to express any sentence by his gestures, as significantly and variously as Cicero with all his oratory. Quinctilian gives us a system of the rules of action; taken not only from the writings of the ancient orators, but from the best examples of the forum.

What we usually attribute to eloquence, was really the effect of the action only, as some of the greatest masters in that way have frankly acknowledged. — Demosthenes expressly calls it, 'the beginning, the middle, and the end of the orator's office'; and Cicero proffesses, that it is not of so much importance what the orator says, how he says it.

The Greeks, who were attentive to multiply the means of influencing the passions, omitted nothing which might bring to perfection this first language of Nature. Poetry and music were always supported by the action of the performers. This action, which was acquired by a kind of dance that regulated the motions and different inflections of the body, animated the discourses of their orators, and sometimes the lesons of their philosofers. See Plut. in Deoroth. tom. i. p. 851. Ed. Xyland. Id. in x. Rhet. Vit. tom. ii. p. 845. Plato de leg. i. vii. tom. ii. p. 816. Ed. Serrani. Athen. Deipn. l. i. c. 17. p. 21. Ed. Califub.

After all, it is a point that will bear being controverted, whether action ought to be practiced and encouraged at all? A thing that has so much command over mankind, it is certain, must be very dangerous; since it is capable of being turned to our disadvantage as well as to our advantage. It is putting a weapon in the hands of another, which, if he pleases, he may make use of to subdue and enslave us: and accordingly, history is full of the pernicious uses made of it.

For this reason, eloquence and action have been usually discouraged by modern policy; and both the bar and the pulpit have been brought to a more frigid way of delivery.

But this is an extreme, which no objection founded on the abuse of eloquence accompanied with action, and no apprehension of its pernicious effects, can justify. The benefit accruing from it simply counterbalance the mischief which it is capable of producing.

Perhaps the foundation of all action may be vicious and immoral. — Voice and gesture, we know, will affect brutes; not as they have reason; but as they have passions; so far as these are used in a discourse, therefore, it does not regard an assembly of men more than it would a herd of quadrupeds: that is, their whole effort is spent, not on the rational faculties, which are out of the question, but on the animal ones, which alone they endeavour to poffess and actuate, independently of reason. — Nay more, our reason, and the judgment itself, are intended to be baffled and inclined by them; action being only used as an indirect way of coming at the reason, where a direct and immediate one was wanting; i.e. where the judgment cannot be taken by the proper means, argument, it is to be taken indirectly by circumvention and flattery.

The natural order of things, then, is here inverted; our reason, which should go before and direct our passions, is dragged after them; instead of coolly considering, and taking cognizance of things; and according to what we perceive therein, ruling ourselves to the passions of grief, indigitation, or the like, we are attacked the other way; the impression is to be carried backwards, by virtue of the natural connection there is between the reason and the passions; and thus the helm, the principle of our actions, is taken out of our own hand and given to another. See Passion.

The cafe is much the fame here as in enation and imagination: the natural and regular way of arriving at the knowledge of objects is by sense; an impression begun there is transmitted to the imagination, where the image is produced, similar to that which first struck on the organ. — But the proceeds is sometimes inverted: in hypochondriac, lunatic, and other delirious cafes, the image is first excited in the imagination; and the impression thereof communicated back to the organs of sense: by which means objects are seen which have no existence.

Upon the whole, action does not tend to give the mind any information about the subject that is discussed; nor is it designed to convey any arguments or ideas which the simple use of language would not convey. But is it not that upon which we should form our judgments? And can any thing help us to form a just judgment, beside that which in some way or other enlightens and convinces our understanding? When Cicero made Cæsar tremble, turn pale, and let fall his papers, he did not apprise him of any new guilt which Cæsar did not know of; the effect had no dependence on Cæsar's understanding; nor was it anything more than might have been produced by the unmeaning sounds of a musical instrument duly applied. However, action may be useful in awakening and fixing the attention, provided that it be accompanied with suitable argument and address. As there is no nation, nor hardly any person, so phlegmatic and destitute of feeling, as not to accompany their words with some actions and gestures, whenever they are much in earnest, it would be unnatural in a public speaker, and inconsistent with that calmness and solemnity which he ought to manifest in all affairs of moment, to remain...
main quite unmoved in his outward appearance: and to let
the words drop from his mouth without any expression
of meaning, or warmth in his gestures. There is a coldness
of delivery as well as of composition, which should be ili-
rudely avoided. Action, properly conducted, gives to the
speaker in the senate, at the bar, and in the pulpit, very
great advantage in enforcing his argument and impressing an
audience. See Gesture.

Action, in a theatrical sense, is nearly the same with
that among orators, with this difference, that the actor
adapts his action to an allumed character, whereas the orator
is supposed, in reality, to feel the passion which his action
expresses, whether joy, or grief, &c. See Declamation.

Action, in Poetry, is an event, either real or imaginary,
which makes the subject of an epic or dramatic poem. This,
says Aristotle (De Poet. cap. vi. p. 657.), is the soul
of tragedy. The action of a poem coincides nearly with the
fable thereof; it being the usual practice not to take any
real transfiguration of history, but to feign or invent one;
or at least to alter the historical fact, so as to render it in
a good measure fictitious. Critics consider the principal
action, commonly called the Fable, and the incidental
action of an EPISODE.

F. Bofti has two chapters, Of real action, the recitals
whereof are fables: and Of feigned actions, the recitals whereof
are historical.

The critics lay down four qualifications as necessary to
the epic and tragic action: the first, Unity; the second,
Integrity; the third, Importance; and the fourth,
Duration; to which some add a fifth, viz. Continuity.
Dr. Blair specifies three properties, which are essential to
the action or subject of an epic poem. It must be one, great
and Interrelling.

Aristotle infills upon unity, as essential to epic poetry;
and he observes, that, in order to render this unity more
fisible to the imagination, and thus to give it a better
effect, it is not sufficient for the poet to confine himself to
the actions of one man, or to those which happened during a
certain period of time; but the unity must lie in the sub-
ject itself, and arise from all the parts combining into one
whole. This unity of action is sufficiently apparent in all
the great epic poems. Thus, Virgili has chosen for his sub-
ject the establishment of Aeneas in Italy, which he keeps
constantly in view, and which serves to connect all the parts.
The unity of the Odyssey is of the same nature; the return
and re-establishment of Ulysses in his own country. The
subject of Tasso is the recovery of Jerusalem from the In-
fidels; that of Milton, the expulsion of our first parents
from paradise; and both of them are unexceptionable in the
unity of the story. The anger of Achilles, with its con-
sequences, is the proper subject of the Iliad; but, as
Achilles is in many books of the poem kept out of sight,
and the fancy terminates on no other object than the suces-
s of the two armies that are seen contending in war, the
unity is not so sensible to the imagination as in the Æneid.
This unity of the epic action does not exclude all episodes,
or subordinate actions. Moreover, the unity of the epic
action necessarily supposes, that the action be entire and
complete; or, as Aristotle expresses it, that it should have a
beginning, middle, and end.—If the three parts of a whole
seem to be generally denoted by the words, beginning, middle,
and end, Boffi interprets them more expressly, thus: the
causes and designs of a man's doing an action are the be-

The poet, says Boffi, should at the outset, that, on
one hand, nothing should be too hastily saying for the un-
derstanding of what he afterwards deliver:; and, on the other,
that what thus begins require after it a necessary confluence.
The end is to be conducted after the like manner, only with
the two conditions transferred, so that nothing be ex-
pected after it; and that what ends the poem be a necessary
confluence of something that went before it. Lastly, the
beginning is to be joined to the end by a middle, which is
the effect of something that went before it, and the cause of
what follows.

In the causes of an action, one may observe two opposite
designs; the first and principal is that of the hero; the sec-
second comprehends all the designs of those who oppose
the pretensions of the hero. These opposite causes do all pro-
duce opposite effects, viz. the endeavours of the hero to ac-
complish his design, and the endeavours of those who are
against it.—As the causes and designs are the beginning of
the action, so the contrary endeavours are the middle of it,
and form a difficulty, plot, or intrigue, which makes the
greatest part of the poem; and the solution or clearing up
of this difficulty makes the unravelling.

The unravelling of the plot, or intrigue, may happen two
ways; either with a discovery or without.

The several effects which the unravelling produces, and
the different steps to which it reduces the persons, divide the
action into so many kinds. — If it change the fortune of the
principal person, it is said to be with a peripetia; and the
action is denominated incipies, or mixed; if there be no per-
petia, but the unravelling be a mere passing from trouble to
repose, the action is simple. It has been debated among
critics, whether the close of the action in an epic poem should
be always prosperous or not? The general opinion and the
general practice are on the side of a prosperous conclusion.
But there are some exceptions. Lucan and Milton, two authors
of great note, have pursued a contrary course: the one con-
cluding with the subversion of the Roman liberty; the other
with the expulsion of man from paradise.

Another property of the epic action is, that it be great,
or sufficiently splendid and important both to fix our atten-
tion, and to justify the magnificent apparatus which the poet
baffles upon it. One circumstance that contributes to the
grandeur of the action is, that it be not of a modern date.
Antiquity is favourable to those high ideas, which epic
poetry is designed to excite and cherish. Lucan and Vol-
taire have, in the choice of their subjects, transgressed this
rule. As the action is rendered important, says Boffi, by
giving a higher idea of the personages that are introduced
than any the readers can conceive from comparing them
with those of the present time, and where heroic, says
Dr. Blair, is the ground-work, and where the object in view
is to excite admiration, ancient or traditionary history is cer-
tainly the safest region. The distance of the period, or the
remoteness of the scene, affords sufficient licence for fiction
and invention. The importance of the action much de-
dpends on the dignity and importance of the person con-
cerned in it. Thus, the fame of Homer's heroes, and the
consequences of their diffusion, furnish a subject important
in itself, and particularly important to his countrymen, who
valued themselves on their descent from these heroes. The
importance of the action itself should also be regarded.
In this respect, the subject of the Æneid is greater than that
of the Iliad, as it is the foundation of the most powerful
empire that ever was established on the globe: which is an
event of much greater moment than the destruction of a
city, or the anger of a warrior. But in comparison of the
greatness displayed in Paradise Lost, all other greatness,
ACT

fays Dr. Johnfon, in his Life of Milton, shrinks away. The subject of the English poet is not the destruction of a city, the conquest of a colony, or the foundation of an empire; it is the fate of worlds; the revolutions of heaven and earth; rebellion against the Supreme King, raised by the highest order of created beings; the overthrow of their holl, and the punishment of their crime; the creation of a new race of reasonable creatures; their original happiness and innocence, their forfeiture of immortality, and their reformation to hope and peace.

Another property required in the action of an epic poem is, that it be interesting. The subject should interest the public; and therefore the poet should select for his hero, one who is the founder, or deliverer, or favourite of his nation; and he should direct the attention to achievements that have been highly celebrated, or that have been connected with important consequences to the public cause. But more than this, in the management of his subject, he should contrive to interest not one age or country, but all readers, by concerting his plan so as to comprehend many affecting incidents. He may sometimes be awful and august; he must often be tender and pathetic; and he must give us many pleasing scenes of love, friendship, and affection: the more an epic poem abounds with situations which awaken the feelings of humanity, the more interesting it is; and these, form, always, the favourite passages of the work. No epic poets have been so happy in this respect as Virgil and Tasso. It is needless to mention, that the subject of the Paradise Lost is more universally interesting than that of any other poem. The character of the heroes serves also, as we have already observed, to render the action interesting.

As to the duration of the epic action, Aristotle observes (De Poet. cap. v. p. 656.) it is not so limited as that of the tragic action: the latter is confined to a natural day; but the epic, according to that critic, has no fixed time.—In effect, tragedy being full of passion, and consequentially of violence, which cannot be suppos’d to last long, requires a shorter time; and the epic poem, being for the habits which proceed more slowly, requires a longer time, either for them to take hold, or to be rooted up; and hence the difference between the epic and dramatic action in point of duration. Boffi lays it down as a rule, that the more vehement the manner of the principal personages are, the less time ought the action to last: accordingly, the action of the Iliad, which is formed upon the wrath of Achilles, &c. last not longer than forty-seven days; whereas that of the Odyssey, where prudence is the reigning quality, computed from the taking of Troy to the peace of Ithaca, extends to eight years and a half; and that of the Æneid, where the prevailing character of the hero is piety and mildness, computed from the taking of Troy to the death of Turnus, includes about six years.

But if we estimate the period only of the poet’s own narration, or compute from the time in which the hero makes his first appearance till the conclusion, the duration of both these last poems is brought within a much smaller compass. The Odyssey, beginning with Ulysses in the island of Calypso, comprehends fifty-eight days only; and the Æneid, beginning with the storm, which throws Æneas upon the coast of Africa, is reckoned to include, at the most, a year and some months. See Blair’s Lect. on Rhetoric, &c. vol. iii. p. 211—221.

Action is also used in Painting and Sculpture for the posture of a figure, or the attitude it is suppose to be in, expressed by the position of several parts of the body, or by the postures appearing in the face. Thus we say, the action of such a figure finely expresses the passions by which it is agitated. The same expression is applied to animals. When the word action is used by way of distinction from attitude, it may have respect to the figure’s being represented in motion, as running, jumping, striking, falling, &c. which the painter distinguishes from such as are at rest, by removing from the centre the imaginary line of gravity used in balancing his figures to some distance, before, behind, or on one side, according to the degree of motion which he means to express. It is evident, that if a man be running, and we view him sideways, his head and chettle will be thrown as much before his feet, as immediately to suggest the idea of his falling on his face, unless the hinder leg be quickly brought forward to prevent it. See Attitude and Gravity.

M. Watelet, after observing that, however terms may resemble one another in signification, there are none which are perfectly synonymous, proceeds to ascertain the difference between action, motion, and expression, as applied to painting or sculpture. To this purpose he remarks, that there are passions, or rather sentiments, which, though they immediately produce neither action nor motion, have their characteristic expressions. Of this kind are dejection, voluptuousness, and melancholy; the expression of which, being passive, arrest motion, and suspend action in those who are under their influence. On the other hand, figures that are engaged in any violent bodily exertion may be said to have motion and action; though they are not affected by those passions, to the external tokens of which the term expression is peculiarly adapted.

Action, he farther observes, requires a motion of some parts of a figure, without supposing that the whole changes its place, which is the idea suggested by the term motion. These distinctions are illustrated by appropriate examples. He supposes a picture of what is commonly called the judgment of Solomon, in which the monarch is represented seated on his throne, and extending his arm to command the division of the infant. Such a figure, even though the face were concealed, ought, in consequence of this gesture, to be said to have action; and yet it could not with equal accuracy be affirmed to have motion. Again: suppose a woman represented as rushing forward to separate two combatants, every part of her appears to concur towards the precipitance of her course, and is drawn in that position which is requisite to the immediate effect of her intention; so that the beholders are ready to imagine that they see her change her place: such a figure may be more properly said to have motion than action. Watelet’s and Leval’s Diction des Arts de Peinture, Sculpture et Gravure, art. Action.

Action of the Mouth, in the Mange, denotes the agitation of a horse’s tongue, or mandible, or his champing on the bit; which produces a white foam.—This, with the riding-mallers, is esteemed not only a sign of health, vigour, and mettle; but also of a sensible mouth.—This action is likewise suppos’d productive of a good mouth, whereas various means are made use of to keep a horse constantly champing. Some persons put a large bit with several detached movable parts, called a flattering-bit, into his mouth two hours before riding, and then turning his tail to the manger, fasten him between the stall-ports; others make use of a similar bit in common, and most persons use it for his watering exercise.—There can be no doubt that this action tends to keep the mouth sensible and alive, as it is termed, especially when accompanied with a judicious bridle-hand upon a horse; but it must be recollected that the bars of a horse’s mouth are covered with cuticle or epithelium, which is the outer incensible skin of other parts, the nature of which
which is to thicken upon pressure; therefore the flaving-
bit put on so long before riding, though it may give tempo-
rary facility, must conduce to permanent hardship.

**Action, in the Military Act, is an engagement be-
tween two armies, or between different bodies of troops be-
longing to them.** Although humanity and found policy
will induce the general of an army to avoid an action, when
no considerable benefit is likely to accrue from it, yet there
are certain circumstances that will direct him in the alter-
native either of commencing or avoiding it. Wildman
will suggest the importance of bringing the enemy to an im-
mEDIATE action, when it will serve to prevent the junction
of his forces; to discourage the hostile declaration of a neutral
power; when any advantage may be obtained by the dif-
union of his forces; when there is reason for apprehending
the inconveniency or actual withdrawal of allies; when
defection, on account of an existing or impending scarcity
of money, or of the means of subistence, is dreaded; when
new allies may be thus gained, or those of the enemy may be
induced to abandon him; and when a reasonable prospect
occurs of securing a present advantage, without risking any
loss or injury that shall in the event more than counter-
balance it. The commencement of an action, when it is de-
finable, may be expedited by threatening, or actually be-
lieving a port or place, which is of importance to the
enemy; by attempting to relieve and succour a place that
is besieged; by ravaging and laying waste the country; by
presenting the allurement of booty; by depriving the
enemy of forage or water; by exhibiting the appearance of
an untenable post, or of a feeble force; and by prevailing
fear, the diminution of forces, the disorder of retrenchments,
or a defecion of part of the army, or prevailing discontent
and a disposition to mutiny, or orders not to engage.

The motives which *ill induce a prudent general to avoid
To begin an action are such as these: the defect or
the distance of his forces, the prospect of fresh supplies, the
dread of defelection, the augmentation of the enemy’s allies,
the disadvantage of ground, position, number, &c. want,
difable, and defection in the opposing army, actual nego-
tiations, or positive orders not to hazard an engagement.
The means of avoiding an action are the choice of posts and
retrenchments, well concerted and well executed stratagems,
the delation of the country through which the hostile
army must pursue that which is retreating, and from which
it must draw some of its supplies; any movements that would
cause a diversion, real or feigned negotiations, report of
approaching succour, and the appearance of considerable
force. These various circumstances are detailed at large,
and illustrated by apposite examples selected from the con-
duct of the most able commanders, both ancient and mod-

**Art. Action.**

This term is likewise used to signify some memorable act
done by an officer, or commander of a body of troops.

**Action, in Law, is a right of demanding, and pur-
suing in a court of judicature, what is any man’s due.**

Or, *action* is any kind of process or suit which a perfon
enters for the recovery of his right. See *Cause.*

Actions are divided, by Justinian, into two different kinds:
real, or those against the thing; and personal, or those
against the perfon.—*For whoever brings an action, either
doing it againt on obnoxious to him, in respect either of
contract or offence; in which case arise actions against the
perfon which require the party to do, or give something:
or, he does it against one not obnoxious, yet with whom a
controversy is arisen touching some matter; as if Caius hold
a field which Julius claims as his property, and brings his
action for the same.* See the Institut. lib. iv. tit. 4, where
the principal actions, introduced by the Roman law, are
summarily explained.

In common law, from the two classes of real and personal
actions, arises a third called a *mixed action;* which regards
both the *person* and the *thing.*

**Action, real, or, as it is called in the Mirror, feudal
action, is that which concerns real property, whereby the
defendant claims title to lands or tenements, rents or com-
mons, in fee-simple, fee-tail, or for life; and these actions
are either *ancient,* or *polysy*. Ancient action is that
which we have by some right descending from our ancestor.—

**Polysy,** sometimes also called *personal action,* is that which
has its beginning in and from ourselves.

But real actions, formerly so numerous and considerable,
as writs of right, of entry, &c. with their appendages as *grand
capes, petit cape, receipt, view, aid-prayer, voucher, counter-
plea of voucher, counter-plea of warranty, and recovery of
value,* are now much out of use; on account of the great
nicety required in the management of them, and the incon-
venient length of their process: a much more expeditious
method of trying titles being since introduced in other actions,
*personal* and *mixed.* In a real action several lands held by
several titles may not be demanded in the same writ; but in
personal action several wrongs may be comprehended in one
writ. A bar is perpetual in the latter actions, and the
plaintiff has no remedy, except by writ of error or attestat;
but, in the former, if the defendant be barred, he may
commence an action of a higher nature, and try the fame
again.

**Action, personal, is that whereby a man claims a debt,
or personal duty, or damages in lieu thereof; and likewise,
whereby a man claims a satisfaction in damages for some
injury done to his perfon or property. The former is said
to be founded on contract; the latter upon *tort* or wrongs.
Of the former nature are all actions upon debt or promises;
of the latter all actions for trespasses, nuisances, assaults,
defamatory words, and the like.

Many personal actions die with the perfon; but real
actions survive. In all actions merely personal, arising ex
*delicto,* for wrongs actually done by the defendant, as *tres-
pas, battery, and slander,* the action dies with the perfon.
But in actions arising ex contractu, by breach of promise
and the like, though the suitor shall abate by the death of
the parties, they may be revived by or against the executors
who have afliers to answer the demand; as they are rather
actions against the property than the perfon.

**Action, mixed, is that laid indifferently for the thing de-
tained, or against the *person* of the deater; being thus
called, because it has a mixed respect, both to the thing, and
to the person.*

Others better define it, a suit given by law to recover the
thing demanded; and damages for the wrong done.

Such is, *affize of novel disseisin,* which, if the dispossessor
make a feecomment to another, the disseisee shall have against
the dispossessor, and the fecoiffe, or other terre-tenant, to re-
cover not only the land but damages also. And the like
is action of waste, *Quare impedit,* &c. See *Assise.*

Actions are also divided into civil and criminal.

**Action, civil, is that which only tends to the recovery
of what, by reason of a contract, or other like cause, is a
man’s due.—As, if a perfon by action seek to recover a sum
of money formerly lent, &c.*

**Action, criminal, is that the object of which is judgment
death, as appeals of death, robbery, &c. or judgment for
damage to the party, fine to the king and imprisonment, as
appeals of malice, &c. To this class belongs action penal.*

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**Action.** penal, aims at some penalty upon the party sued, either corporeal or pecuniary.

Such is the *Actio Legis Aquilina*, in the *Civil Law*; and with us, the next friends of a man feloniously slain, or wounded, shall pursue the law against the offender, and bring him to condign punishment.

A *new Action* is also distinguished, as it lies for the recovery of the simple value of the thing challenged; or of the double, treble, quadruple, &c.

Thus, a *Deciet taintum* lies against embracers: and against jurors who take money for their verdict, of either, or both parties.

To this class also belong all actions on a *statute* that punishes offence by restitution, or fine proportionable to the transgression.

**Action, again,** is divided into *judicial*, called also *preparatory* and principal.

**Action, judicial,** is that which arises from some question, or doubt in the principal one.

As, if a man sue his younger brother for land defended from his father; and if it be objected, he is a bastard; this point of bastardy must be tried, before the cause can proceed: whence this action is termed *judicial*, *quia prior judicandi.*

**Action upon the case,** *Actio super causam,* is a general action, given for the redress of a wrong done any man without force, and not especially provided for by law; in order to have satisfaction for damage.

This, of all actions, is now most in use.—Where there arises an occasion of suit, that has neither fit name, nor certain form already preferred; the clerks of the chancery, anciently, conceived a proper form of action for the thing in question: which was called an action *upon the case*, by the civilians *Actio in casuum.*

This is called an action *upon the case*, because the whole cause or case, as much as in the declaration (except time and place) is let down in the writ; and there is no other action given in the case, except only where the plaintiff has his choice to bring this or another action. This action lies in a variety of nuisances; as for words spoken or written, which affect a person’s life, reputation, office, or trade, or tend to his loss of preferment, in marriage or service, or to his defeasance, or which occasion him any particular damage. Action on the case likewise lies upon an *Assumpsit.* It lies also, in all nuisances, wherein no general action could be framed: e.g. against *Carriers,* against a common inn-keeper for goods stolen in his house, for deceit in contracts, bargains, and sales, for neglect or malfeasance, for injuries done in commons, for malicious prosecution and false arrears, against sheriffs for default in executing writs, permitting escapes, &c. for conspiracy, nuisances, &c. &c. See *Comyns’s Digest,* art. *Assumpsit,* and Jacob’s *Law Dict.* by Tomlin, art. *Assumpsit.*

**Action.**

**Action upon the statute,** *Actio super statutum,* is a writ of action, brought against a man, upon an offence against a *statute,* whereby an action is given that did not lie before.

Thus, where one commits perjury, to the prejudice of another, he who is damaged shall have a writ upon the statute, and a cause accordingly. Such action is now obsolete.

**Action, popular,** only differs from an action upon the statute, in that, where that statute gives the suit of action to the party grieved, or otherwise to one single person, certain, it is called action upon the statute; and where the authority is given by the statute to every one that will do it, it is an action popular: and from the words used in the process, it is called a *qui tam action.* See *Information.*

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**Action.** is also divided into perpetual and temporary.

**Action, perpetual,** is that whose force is not determined by any period or term of time.

Of this kind were all civil actions among the ancient Romans; viz. such as arose from laws, decrees of the senate, and constitutions of the emperors; whereas actions granted by the prætor died within the year.

We have also *perpetual* and temporary actions now in England: all being perpetual which are not expressly limited.

Divers statutes give actions, on condition they be pursued within the time prescribed.—Of these statutes the principal are the following, viz. 32 Hen. VIII. cap. 2. 31 Eliz. c. 5. 21 Jac. I. c. 2. 16. 10 W. III. c. 14. 27 Geo. III. c. 44. See *Limitation.*

But, as by the civil law no actions were perpetual, but that by time they might be prescribed against; fo, in our law, though action be called perpetual, in comparison of those that are expressly limited by statute; yet is there a means to prescribe against real actions, after five years, by a *fine levied,* or a *recovery suffered.* See *Prescription.*

Again, *actions* are either local, as ejectment, waste, &c. which must be brought in the county where the land lies; or trespass, such as debt, detinue, &c. which may be brought in any county.

By *Stat. 21 Jac. I. c. 4.* all suits on penal statutes shall be laid in the county where the offence was committed. See *Venue.*

**Action.** is also joint or several; joint, where several persons are equally concerned, and the one cannot bring an action, or cannot be sued, without the other; several, in case of trespass, &c. done, where persons are to be severally charged, and every trespass committed by many is several.

There are also various kinds of *actions* suited to different cases, as *actions of Covenant,* *Debt,* *Detinue,* *Trespass,* *Troters,* &c.

**Action.** *Close in,* see *Close in Action.*

**Action of a writ,** is when a person pleads some matter whereby he shews, that the plaintiff had no just cause to have the writ he brought, though it be possible he might have another writ or action for the same matter.—Such plea is called, a *plea to the action of the writ.*

When by the plea it appears, that the plaintiff has no cause of any action for the thing demanded, it is called a *plea to the action.* See *Plea.*

**Action, in affairs of Commerce, or Action of a Company,** is a part or share in the company’s stock or capital, which consists of a number of such actions.

**Actions in France and Holland amount to the same with shares or subscriptions, in England.**

Thus, the capital of a company, which has three hundred actions of a thousand livres each, consists of three hundred thousand livres. Hence a person is said to have four or five actions in such company, if he hath contributed to the capital, and be interelled in it for four or five thousand livres.

A proprietor cannot have a deliberate vote in the assemblies of a company, unless he has a certain number of actions, fixed by the letters patent of its establishment; nor can he be a director, unless he has a full greater number of actions. Actions are bought and sold, transferred, &c. much in the same manner as *stocks* are with us.

**Action also denotes an obligation or inurement, which the directors of such companies deliver to those who pay money into their stock.* See *Bank and Actionary.*

To *null or liquidate an action,* is to fill, or turn it into money, &c.

To *sued an action,* is to pay exactly when they become
due, the several sums subscribed to the flock of the company, according to the several orders of council made for the creation of the new actions.

ACTIONARY, or Actionist, a term frequent in foreign newspapers; denoting the proprietor of an action or share in the company's stock.

ACTIVE, something that communicates motion or action to another. In this sense, the word stands opposed to passive. Thus we say, an active cause, active principles, &c.

The quantity of motion in the world, Sir Isaac Newton shews, must be always decreasing, in virtue of the vis inertiae, &c. So that there is a necessity for certain active principles to recruit it: such he takes the cause of gravity to be, and the cause of fermentation: adding, that we see but little motion in the universe, except what is owing to these active principles.

Active principles, in Chemistry, are those which are supposed to act of themselves, and do not need to be put in action by others.

Salt, sulphur, and mercury, have been usually considered by the chemists as active principles; and phlegm and earth as passive ones.

Mr. Homberg, and some chemists after him, only make one active principle, viz. sulphur, or fire: which they take to be the source or principle of all the motion and action of the universe.

The term active principle, says Dr. Quincy, has been used to express certain divisions of matter, that are, by some particular modifications, comparatively active, in respect of others. But the progress of science, and particularly of experimental philosophy and chemistry, has introduced new and more rational ideas on this subject.

In a strict sense, all motion in matter is rather passion; and there is no active principle, unless we thus call the known powers of gravitation, attraction, and repulsion, on which the Newtonian philosophy is founded: so that let bodies exist under what modifications forever, there can be no alteration made of these universal properties.

Active, in Grammar, denotes a word having a signification that serves to explain or denote an action.

Thus we say a verb active, a conjugation active, &c. or an active participle.

Active Verbs, are such as do not only signify doing, or acting, but have also nouns following them, to be the subjects of the action or impression: and they are thus distinguished from verbs neuter.

Thus to love, to teach, are verbs active; because we can say, to love a thing, to teach a man.

Some grammarians, however, make three kinds of verbs active: the transferre, where the action passes into a subject different from the agent; reflexed, where the action returns upon the agent; and reciprocal, where the action turns mutually upon the two agents who produced it. See Verb.

Active Power, in Metaphysics, is the power of executing any work of art or labour, in contradistinction to speculative powers. The exertion of this power is called action; and as every action produces some change, so every change must be caused by some exertion, or by the cession of some exertion of power. That which produces a change by the exertion of its power, we call the cause of that change; and the change produced the effect of that cause; and that being in which the change is produced is said to be passive, or to be acted upon. Thus (says Dr. Reid, Esq. on the Active Powers of Man, p. 13.) we see, that action and passion, cause and effect, exertion and operation, have such a relation to active power, that if it be understood, they are understood of consequence; but if power be a word without any meaning, all those words which are related to it, must be words without any meaning. See Power.

ACTIVITY, the power of acting, or the active faculty. The activity of fire exceeds all imagination.—The activity of an acid, a poison, &c.—Bodies according to Sir Isaac Newton, derive their activity from the principle of Attraction.

Activity of a body, the sphere of, is the space which surrounds it, so far as its efficacy or virtue extends to produce any sensible effect.

ACTIUM, in Ancient Geography, a small town near a promontory of the same name in the mouth of the Ambracian gulph, on the coast of Arcadia, and opposite to Nicopolis on the other side of the bay. This place was famous for a temple of Apollo, mentioned by Thucydides (i. i. e. 29. p. 24. Ed. Dukler), and by Strabo (i. vii. tom. i. p. 500. Ed. Cauib.) thence denominated Actium (Virgil Æneid. viii. 704.) and afterwards for the victory obtained by Augustus over Anthony and Cleopatra in a naval battle on the 2d of September, in the year of Rome 723. Nicopolis was built in order to commemorate this victory, and games were instituted called the Actian games. There were ancients solemn games at Actium, at which the Lacedaemonians used to preface, mentioned by Strabo, and alluded to by Virgil, Æn. ii. 278. The victory at Actium was also celebrated by games instituted at Rome. Sueton. Tib. vi. Dion. Culs. Hist. Rom. lib. ii. 19. liii. liv. 19. tom. i. pp. 649—656—749. Ed. Reimari. The Actian also took its rise from the battle of Actium. The promontory is now called Cape di Figalo. The medals of Actium were silver, gold, and bronze; and the ordinary type is a flying pegasus.

ACTON, in Geography, a village about six miles West of London, where is a well of purging water, noted for the pungency of its salt. Its colour is whitish, its taste is sweetish, with a mixture of the same bitter which is in the Epsom water. Its salt is not quite so soft, and is more calcareous than that of the Epsom water, being more of the nature of the salt of lime: it is however more nitrous than the other. A quantity of it being boiled high, and mixed with a solution of sublimate in pure water, throws down a yellow sediment. It strikes a deep red or purple with the tincture of log-wood in brandy, as is usual with nitrous salts. It does not precipitate silver out of the spirit of nitre, as common salt does; a pint and a half of the water yields forty-eight grains of salt. See Allen's History of Purging waters.

ACTON, a township of Middlesex county in the Massachusetts, containing 853 inhabitants; 24 miles N.W. of Boston.

ACTON Barnet, a village in Shropshire, about three miles from Great Wenlock, where a parliament was held in the reign of Edward I. when the famous act 11 Ed. I. A. D. 1283, called Statute-merchant, was renewed.

ACTOR, in Antiquity, was the name of a person who had the superintendence of all the goods of a Roman citizen. He was called "actor bonorum, and actor prediorum fundonum."  

ACTOR Summarum, was a slave, to whom was committed the office of cash-keeper: and that he was a slave we may infer from the punishment of the crofs which Domitian caused to be inflicted on one of these actors. See Sueton. in Domit. c. x. t. 2. p. 1038.

Actor, in a general sense, one who performs any act.

Actor, among Civilians, the proctor or advocate in civil courts or causes: as actor ecclesiasticus has been sometimes used
used for the advocate of the church; actor dominicus for the Lord's attorney; actor vix, the steward or head bailiff of a village.

Actor, in the Drama, one who represents some person or character upon the theatre. The drama, in its original, only consisted of a simple chorus, who sang hymns in honour of Bacchus; so that the primitive actors were no more than singers and musicians. Thespis was the first who took upon him to introduce a person, or actor, who was to play the chorus by reciting the adventures of some of the heroes. Thus came the recitation or declamation in use. Aeschylus, finding a single person tiresome, thought to entertain the audience more agreeably by the introduction of a second person, who should converse and conduct dialogues with the first. He likewise dressed his actors more decently than they had been before, and put on them the buxkin and the mask. Sophocles, finding the two persons of Aeschylus too few for the variety of incidents, added a third; and here the Greeks flopped: at least, we seldom find in any of their tragedies above three persons in the same scene. They might probably think it wrong to admit more than three speakers at the same time on the stage; a rule which Horace has expressed in the following verse of his Art. Poet:

"Nee quastra loqui perfona laboret."

In their comedies they took a greater liberty. The moderns have introduced a much greater number of actors upon the stage. This heightens the trouble and diffizes that should reign there, and makes a diversity, in which the spectator is sure to be interposed. Horace speaks of a kind of secondary actors in his time, whose concern it was to imitate the first, and degrade themselves in order to become better foils to their principals. The proper business of these subaltern actors is unknown to us.

The actors wore habits and symbols suited to their respective parts. Kings bore the regal appendages, as the diadem and sceptre; and their garments were long robes of purple and other colours, ornamented with gold. Heroes were often covered with the skin of a lion or tigress, and armed with swords, spears, quivers, and clubs. The age, sex, and condition, of every personage of the drama were almost always indicated by the colours of the dress. The same actors sometimes performed both in tragedy and comedy; but they seldom excelled in both. In order to acquire greater vigour and suppleness of body, they exercised in the palaistra; and others, to render their voices more dulce and sonorous, carefully observed a strict regimen. Cicero, Orat. cap. iv. tom. i. p. 423. Ed. Olivet. Plato, de Leg. i. ii. tom. ii. p. 665. Ed. Serrani.

Besides considerable pay which was given to actors who had acquired great reputation, e.g., a talent in two days, (Plutarch in X Rhet. vet. tom. ii. p. 348. Ed. Xylandri), they enjoyed all the privileges of citizens; and as it was required that they should be free from all the rigours of infamy, with which the laws punished offences, they arrived at the most honorable employments. A famous actor, named Aristodemus, was sent on an embassy to Philip, king of Macedon. Others possessed great influence in the public assemblies. Aeschylus, Sophocles, and Aristophanes, did not blush to act a part in their own pieces. Athen. Depnos. i. i. c. 17. p. 29. c. 18. p. 21. Ed. Cafaub. At Athens, actors were thus highly honoured. But at Rome, they were despised and degraded from their rank as citizens, expelled from their tribe, and deprived of the right of suffrage by censors. The French have adopted the ideas of the Romans, and the English those of the Greeks.

ACTORS, in Roman Antiquity. See ACCUSATION.

ACTORICUM, in Ancient Geography, a territory of Epirus, according to Suidas, which he says was afterwards called Leucadia, belonging more properly to Aetolia.

ACTORION, or ACTORIES, in Entomology, two species of papilio, found in Surinam; one with subacute keeled brown wings; the anterior marked with a yellowish fascia, and the hinder with a blue spot and an occllum underneath; the other, with wings of an uniform colour, marked with brown and white.

ACTORUM Tabulae, were tables inscribed by Servius Tullius, in which the births of children were registered. They were kept in the treasury of Saturnus.

ACTRIX, ACTRES, a female who acts, or does the office of an actor.

Actresses, or women actors, were unknown to the ancients, among whom men always performed the part of women; and hence one reason for the size of masks among them. Mem. Acad. Inscript. tom. vii. p. 188. Among the Greeks, the women only danced; and their place in tragedies and comedies was supplied by chorus, whose voice resembled theirs.

Actresses are said not to have been introduced on the English stage till after the restoration of King Charles II., who has been charged with contributing to the corruption of the manners, by importing this usage from abroad. But this can be but partly true, for the queen of James I. acted a part in pastoral; and Pyrnx, in his Histrionica, speaks of women actors in his time as women; while one occasion of the severe prosecution brought against him for that book, Whitlock, Mem. 1632. Wood's Athen. Oxon. tom. vii. p. 434.

ACTRIDA, in Ancient Geography, a town placed by Pliny in Arabia Felix.

ACTUAL, something that is real and effectual; or that exists truly and absolutely. The philosophers use actual heat, or cold; in opposition to virtual or potential.

Actual heat, considered actively, is the act of producing heat; passively taken, it is the quality whereby a body is denominated hot. — Virtual or potential heat, actively taken, is the power or faculty of producing heat; passively taken, it should be the power or faculty of being heated, or receiving actual heat.

In medical language, actual is also opposed to potential, and is applied to any thing endowed with a quality which operates by an immediate power inherent in it. For example: a red-hot iron, or fire, is called an actual cataract, in contradistinction to cataractae, which have a power of producing the same effects on animal bodies, as actual fire; and which are called potential cataracts or cauteries. Boiling water is actually hot, and brandy is potentially hot.

Actual sin is that committed knowingly, by a person arrived at the years of discretion; in contradistinction to what Theologians have called Original sin.

Actual possession and actual right of possession are terms used in Law, for the meaning of which see Possession.

ACTUARIE, node, in Antiquity, a sort of long and light ships, thus denominated as being particularly contrived for swiftness and expedition; they answer to what the French call brigandines.

Cicero, in an epistle to Atticus, calls a ship demum came, reum, of ten banks of rows, actuaria.

ACTUARIUS, or ACTARIUS, primarily denotes a notary, or officer appointed to write down the acts or proceedings of a court, assembly, or like the thing.

In the eastern empire, the actuarii were properly officers who kept the military accounts, received the corn from the fiscus, or store-keepers, and distributed it to the fol-
Actuarius, or Actuary, also means the clerk who registered the acts and constitutions of the convocation.

ACTUATE, to bring into act, or put a thing in action. Thus an agent is said, by the schoolmen, to actuate a power, when it produces an act in a subject.—Thus the mind may be said to actuate the body. And thus a medicine, &c., is said by some ancient physicians, to be actuated, when, by means of the vital heat, it is made to produce its effect.

ACTUS, in the Ancient Agriculture, the length of one furrow; or as far as a plough goes before it turns. Plin. lib. xviii. cap. 3. tom. ii. p. 97. Ed. Hard.

In English it may be rendered by a furrow. —It is also used by Vitruvius as a determinate measure, containing 120 Roman feet.

ACTUS minimus, was 120 feet in length, and four in breadth; being equal to the sextans, or sixth part of the jiggerum, or integer.

ACTUS major, called also aitus quadratus, was the square of 120 feet, or 14,400, being the semis, or half of the jiggerum. —This was also denominated modius, and mina. Varro de Re Raff. lib. i. cap. 10.

ACTUS Intervallis, a space of ground four feet in breadth, left between the lands as a path, or way.

ACUANTES, Acuantes, in Ecclesiastical History, are those called more frequently Manichæi. They took the name from Acua, a disciple of Thomas, one of the twelve apostles. Bib. Univ. tom. xxv. p. 350.

ACUBA, in Botany, is a tree of St. Domingo, which rifes to a great height, and yields an excellent fruit. The fruit is a kind of fig, resembling in taste the mufcaria pear, but so hard that it must be softened in water before it can be used. The wood is the hardest of any in the island. M. de Lamarck (Encyclopedic, vol. vi. p. 39.) apper- heads, that it is a species of Crysphollum, and the fame which is called Auzuba, and according to Plumier deno- minated Acomas.

ACUBA, in Ancient Geography, a fountain or lake of Africa, in the Syrtis.
of the discoveries of this Jesuit, and his work became very scarce. The Spaniards were jealous of the Portuguese, and wished to prevent their deriving any advantage from the relation of Acuna. The work was translated by M. de Gomberville, in four volumes 12mo in 1682; and, it is said, that the only copy of the original, besides that which the translator used, is in the Vatican library. Gen. Dict.

ACUNUM, in Ancient Geography, a town of Pannonia, north-call of Sirmium.

Acusum is also the present Ancona; suppos'd by M. d'Anville to be the Acusum of Ptolemy.

ACUPUNCTURE, a method of curing many diseases, by prickings several parts of the body with a needle, or instrument of that form; practiced by the Chinese and Japanese, and other nations in that part of the world. They perform the operation with a large gold or silver needle, which they strike into the several parts of the body, either with their hand, or with a hammer made on purpose. This severe and desperate operation is performed on the head and breast, as well as the abdomen, arms, legs, thighs, and many other parts of the body, may even in the abdomen of women with child, when the fucus is reflexes. The disease, for the relief of which this operation is chiefly performed, is ascribed by the Japanese physicians to the immediate use of the fakki, a strong wine made of rice, which gradually fills the abdomen and lower parts of the body with a noxious fucus, that occasions convulsions and exquisite pains. The place in which the puncture is commonly made, is the middle between the navel and the pit of the stomach; and the holes are distributed into three rows, with three punctures in each row, at the distance of about half an inch, and the whole disposed in the form of an oblong square. The needles are vended by the emperor's licence.

Surgeons are furnished with images, wherein all the places in the body proper for the needle are depicted by marks. M. Ten Ryne was an eye-witness of the use of this puncture on a soldier, who was afflicted with violent disorders of the stomach, and frequent vomitings at sea, suddenly relieved himself by prickings a thumb's breadth deep into four different places about the region of his pylorus. Ten. Ryn. Diff. de Acupunct. ap. Phil. Trans. N° 148. p. 231, seq.

We sometimes also find mention of an acupunctur prati-
tified in Europe; but this amounts to no more than the perforating or opening a part, e.g. the cornea, with the point of a needle; which has been done with good success, for the cure of an hydropethaemia and hypopyon.

ACUR, in Ancient Geography, a town of Asia, according to Ptolemy, in Lat. 15° 20'. Long. 124° 45'.

ACUROA, in Botany, a genus of the undulphia decandra chaps and order; the characters of which are, that the calyx is quadrinerved; that it has five petals; and that the leguminous is roundish, compact, not gaping, with a single cell, and a single seed. There is one species, viz. A. violacea.

ACURON, a name given to the alisma.

ACUS, in ichthyology, the name of several species of fish, whose form is long and slender, belonging to different genera in the Linnaean system. The gymnotus acus is distinguished by having no fin on the back, belly, and tail, and by an anal fin terminating before the apex of the tail, with fifty rays. It is found in the Mediterranean. The colour of the upper part is whitish, beclouded with reddish and brown spots, and underneath it is bluish. It has no tentacula.

The synaptus acus is of an hexagonal figure, and has a piminated tail. This is the type of Oberf; and, according to Aldrovand, the acus of Aristotle, and the acus

altera major species of Ariloto, according to Willughby and Ray. It is the horn-fish of Junston. It is found in the northern ocean of Europe; in length, as stated by Gmelin, it is about two or three feet, and it is variegated with alternate spots and belts of a brown and light-yellow colour. The acus of Aristotle, according to Rondelius, Jonston, Willughby, and Ray, and the eczema of Oppian, and the acus first species of Rondelius and Gehr, is the belone of Aristotle; the ssox belone of Linnaeus, the sea-fish of the British zoology, and the garfish of other authors. The acus maxima chimeras, with a compressed body, is the fistularia chimera of Linnaeus. The acus maxima squamosa viridis of CATESBY, is the ssox viridis of Gmelin's Linnaeus. Mr. Daines Barrington conceives, that a fish which he found near Chrischurch, in Hampshire, had the appearance of the scales of this fish, though it be a stranger to our seas. Phil. Trans. vol. liii. p. 174.

The acus luciiferiformis of Willughby and Ray, is the synaptus sphyphon of Linnaeus, and the little pifi-fish of the British zoology.

ACUS is also used by some authors for the amnodytes, or sand-eel, a small eel caught in the sands.

ACUS, in Natural History, is a name given to the oblong cimex, with filiform antenna, or the cimex flaginorum of Linnaeus, with a roundish black body, and two globular points in the middle of the thorax, which is very common in the lakes of England. Acus is also a species of ascaris, straight, rigid, and acicular, and bending at both ends. It is white, about two inches long, and found in the intestines of the pike. Acus is also a species of the voluta-shell, marked with transverse ferreries of red points, and terminating in a smooth pointed wreath. It is a inch long, and of a white or yellowish colour.

A species of buccinum, of a whitish colour, with horizontal undulated lines, with hard crenulated rugose windings, and the columna spirally twisted, is called acus.

ACUS Pastoris, in Botany, a name of the scandix. Acus Mofbata, a name of the geranium mofbataum. ACUSCHY, in Zoology, a species of Cavia. See ACOUSHY.

ACUSI, in Botany, a species of apocynum.

ACUSILAUS, in Biography, one of the most ancient Greek historians, was born at Cercas, near Aulis, not long before Pherecydes of Athens, and compiled genealogies of the ancient royal families from tables, which his father is reputed to have found in digging the foundations of his house. He goes back to the ages before the war of Troy, and as far as Phoroeus, king of Argos. Suidas.

ACUSILAUS is also the name of an Athenian orator, who went to Rome in the time of Galba, where he practiced rhetoric, and gained a large fortune of a hundred thousand drachmae, with which he returned to Athens, where he died. Suidas.

ACUSILORUM Colonia, now Ancona, in Ancient Geography, is situated, according to Lucas Hollkerius, between Orange and Valence, near Montelimart, on the banks of the Rhine. It was called Acusum, and, according to Ptolemy, was one of the cities of the Cavan.

ACUTE Infus., in Ancient Geography, are comprehended in the number of the Echinades. They are a little more to the south-west, in the south of the promontory of Araxis. M. d'Anville calls them Oxid infusae.

ACUTE,
ACUTE, adj. something that terminates in a point, or edge; disposed either for piercing or cutting.

In this sense the word usually stands opposed to obtuse.

ACUTE angle, in Geometry, is that which is less than a right angle, or which does not subtend 90 degrees.

Such is the angle ACB (Plate Geometry, fig. 1.)

ACUTE-angled triangle, is that whose three angles are all acute; called also an oblique triangle.

Such is the triangle ACB (Tab. Geometry, fig. 1.)

ACUTE-angled Cone, is that whose opposite sides form an acute angle at the vertex; or whole axis, in a right cone, makes less than a right angle with the side. See Cone.

Pappus, in his mathematical collections, p. 164. Ed. Phil. 1578, says, that this name was given to such a cone by Euclid, and the ancients before the time of Apollonius; and they called an

ACUTE-angular Section of a Cone, which was made by a plane, cutting both sides of an acute-angled cone, an ELLIPSE; but they did not consider, before it was pointed out by Apollonius, that such a section might be obtained in any cone whatever. See Conic Section.

ACUTI, in Musc, is understood of a found, or tone, which is sharp, shrill, or high, in respect of some other; in which sense the word stands opposed to grave. Both these properties of sound depend on the quickness or slowness of the vibrations by which they are produced; and are independent of loudness or force; for a tone may be acute or high, without being loud, and vice versa. There are degrees of acuteness and gravity beyond our powers of appreciation. The warbling of birds is of that kind. No birds but the nightingale and cuckoo produce musical tones which we can imitate, or compare with those of our musical instruments. A bullfinch and canary bird can be taught tunes by our flageolets and bird-pipes; but their natural warble is incommodious with our scale. The grave additional tones in our large piano-fortes become the more difficult to tune as they descend. The octave below double C can, with the utmost difficulty, be made to satisfy a nice ear by the most experienced tuner.

Sounds considered as acute and grave, that is, in the relation of gravity and acuteness, constitute what we call tone, the foundation of all HARMONY.

ACUTE Accent, in Grammar. See Accent.

ACUTE Leaf. See Leaf.

ACUTE Diage. See Disease.

ACUTELL, in Botany, a name used by Seme to express the common Anonis, or Rest-harrow, a small prickly plant, with red or white flowers, and famous for its spreading and tough root. Ger. Emac. Ind. 2.

ACUITATOR, in writers of the barbarous ages, denotes a peron that whets, or grinds cutting instruments: called also in ancient glossaries, acutor, aconox, familiarus, hariarius, &c. Du-Cange.

In the ancient armies there were acuatorers, a kind of smiths, retained for whetting or keeping the arms sharp. Aquin.

ACUTITION, or Acution, in a general sense, the fame with acuating or sharpening.

ACUTITION, in Grammar, denotes the pronouncing, or marking a syllable with an acute accent.

ACUTITION, or Acution, in Medicine and Chemistry, is used for sharpening or increasing the force of any medicine.

ACWORTH, in Geography, a township of Cheshire county, in New Hampshire, incorporated in 1766, and containing 704 inhabitants. It is eight miles east-by-north from Chirketown, and 73 north-west-by-west from Portsmouth.

ACY, a town of France, in the department of the Aisne, one league south-east of Soiffon.

ACYLLA, in Ancient Geography, a town of Italy, built by the Romans, to restrain the barbarians who inhabited the Alps. It was a Roman colony.

ACYPHAS, a city of the Doric Tetrarchy, called by Strabo and others Fyndas.

ACYRHOLOGIA, compound of acus, proper, and phere, discourse, denotes an improper acceptation, or expression, by which a word or phrase is used in some unusual or oblique sense, hardly reducible to the rules of language. Such, e. g. is, the word fero, sometimes used in Roman writers for timor. The acriologia bears a near affinity to the catachresis, inasmuch that many terms and expressions alleged as instances of the latter, are by others brought as examples of the former.

ACYRUS, a small island near Cydonia, in the isle of Crete.

ACZUD, in Geography, a town of Moldavia, in European Turkey. N. lat. 47° 20'. E. long. 29° 10'.

AD, in Grammar, a Latin proposition signifying to, and often used singly, and in composition to express the relation of one thing to another. Among all the eastern nations, Ad was a peculiar title; and, according to the learned Mr. Bryant's opinion, was originally conferred upon the sun. Anal. of Anc. Mech. vol. ii. p. 24.

AD, in Antiquity, is understood of a kind of punishment of criminals, condemned to be thrown to wild beasts. The term was also applied to a sort of gladiators hired to fight with wild beasts.

These are otherwise called barbarian, Calv. Lex. Jur. p. 36.

An extra, a term used among School Divines, in speaking of the external operations of the Godhead.

Acts or operations ad extra, are properly those whole term or effect is not within the divine essence; by which they stand expos'd to operations ad intra. Creation, preservation, regeneration, conversion, renovation, &c. are actions of God ad extra.

Ad intra, among School Divines, is understood of those acts of the Divine Being, whose term and effect is within his own essence. In which sense, acts or operations ad intra, stand opposed to those ad extra.

Ad hominem, among Logicians, is understood of a kind of argument drawn from the belief or principles of those we argue with, and which of conquence must be conclusive to them, though otherwise disbelieved by us; or, it is where a disputat quts his own language and system, and borrows that of his opponent to convince him, by turning his own prejudices or errors against himself. This the schoolmen call argumentum ad hominem.

Ad hibiti, used in Musc, for a piece, when the principal performer is at liberty to give way to his conceptions, to change the measure from quick to slow, or the contrary, without accompaniment, and to manifest his abilities in effusions of fancy, taste, and brilliant passages. But this privilege is often abused in the length and dulness of these extemporary flights, as they are called, though generally prepared at home with great pains and application to very little purpose. None but performers of first-rate abilities should be permitted to obtrude their crude, and often clumsy attempts on the public, interrupting the progress of, perhaps, an elegant or ingenious composition.

Ad ludos, in Antiquity, a Roman sentence, whereby criminals were condemned to entertain the people, either by fighting with beasts, or with each other, and thus executing justice on themselves. Kennet. Rom. Ant.

Ad metalla, the punishment of being doomed to work
in the mines. Criminals condemned to this, were called metallics.

It were to be wished that punishments of this kind could be sublimated in lieu of our frequent executions; which are as repugnant to the principles of humanity as to those of found policy.

Ad quiditter, among schoolmen, include the relations, analogies, agreements, disagreements, similitudes, and difficultudes of things.

Ad quiditer are properly those attributes of things, which answer to the question, ad quid? to what? By which they differ from mere quidities, which answer to the question, quid est? what is it? The latter enquire what things are in themselves; the former what they are, ad alia. Herb. dc.

Verit. p. 233.

Ad volorem, is used in speaking of the duties, or customs, paid for certain commodities; some things are rated by the weight, measure, tale, or the like; others pay ad volorem, according to the value or worth, sworn to by the owner.

Ad Afinim, in Ancient Geography, a town of Italy near the river Effis, between Senogallia and Aconum.

Ad Aquae, a place remarkable for the martyrdom of St. Mark, and which is thought to have been near Alexandria.

Ad Aquae, a name given to several places in Moenia, Dacia, Numidia, Spain, &c.

Ad Aquae caldea, a town of the Picentini, about ten miles from Afril.

Ad Aquae gradatam, a town situated near Aquilia, and remarkable for the martyrdom of three brothers, of the illustrious family of Anicius.

Ad Aquae labudam, or Labodas, a place called Thermae Hypnites, in Sicily, famous for its baths, and situated near the mountain now called S. Calangero.

Ad Aquiae, a denomination distinguishing several places in Mauritania, Attica, Gaul and Italy.

Ad Are, the name given to various places, in which altars were erected; one in Asia between Thirronia and Mellentini, not far from the Ephrates; and another in Boetica, in Spain, between Alcigen and Corduba.

Ad Arenum, a place of Etruria, in Italy, well of Florentia.

Ad Areus, a place in Venetia, between Vicentia and Verona.

Ad Basilica, a place of Africa, in Numidia, between the colonies of Saldae and Igilus.

Ad Brevium, a place in Italy, 30 miles from Rome, now Valmontone.

Ad Claudius, Bagnacavallo, in Italy, was also called Tiberiacum.

Ad Calculus, called by Aristotheles Phelis, was situated in a small island near Etruria.

Ad Celum, Cagli, a place of Umbria in Italy, on the Flaminian way.

Ad Colonia, a place in Italy, between Salernum and Marcellinum in the Appian way, called also Ad Colorem.

Ad Caprea, Capea, Capria, a country near Rome in which Romulus died.

Ad Capre, Carere, Capraia, a district of Umbria in Italy, where Totila, king of the Goths, died of his wounds.

Ad Cyntha, a denomination given by the Romans to several places where they had capra or camps.

Ad Centuriam, a place of Gaul, about five miles from Sumnum Pirenoæ, belonging to the Sardones.

Ad Centurium, a place in Italy, south-east of Asculum, so called, because it was at the distance of 100 miles from Rome. The Romans, who paid great attention to the measurement of distances, denominated places by their distance from Rome, in miles.

Ad Centuriones, a place in Spain near the Pyrenees.

Ad Colonna, a place in Italy, five miles from Ravenna.

Ad Columnam, was situated in Brutium, north of Regium, and opposite to the town of Messina, in Sicily.

Ad Conficius, a place in Italy, between Cefena and Arrimun; and another small place near Parma.

Ad Costias, Casa, was situated between Vercele and Lannemell, in Italy.

Ad Cripis, now Oria, a place of Mauritania Caesariana, in Africa.

Ad Dianum, a place of Numidia, in Africa, 32 miles from Hippo-regius.

Ad Dioneum, a place in Mauritania Cæsar, between Albuna and Regia, south-east of Siga: there was also a place of the same name in Armenia minor in Asia, between Otostadizio and Aza.

Ad Duas Columnas, a place of Italy, between Laumellum and Ticinum.

Ad Dunedin, the name of a place in the Cottian Alps, south-east of Segellus, and of another in Italy, north-east of Patavium.

Ad Dunedinum, a name applied to several places, one in Magna Graecia north of Hydruntum; another belonging to the Ædai, between Augustodunum and Caballunum; another in Gaul, between Dividurum and Decum Pagus, belonging to the Mediomatrici, and another, now Doodever, between Nomentanus and Luguinum Batavorum.

Ad Duas Poente, a place in Spain between Vicus Spacci-orum and Grandinum.

Ad Eufem, a small place in Umbria, north of Iguria, in the Flaminian way between Herrilus and Cale.

Ad Forum Martis, a place of Gaul in the Cottian Alps, well of Ocellum.

Ad Ferona, a place near Mount Soracte, in the territory of the Faliscii, north of Rome, where were a temple and grove consecrated to the goddess Ferona. There was another Ferona south-east of Luna, near the road to Luic.

Ad Pica, or Picus, a place of Numidia, south of Igilugilis.

Ad Picas, a denomination given by the ancients to certain places, because they were on the limits of a country. There were several places of this name in Italy, Belgium and Gaul. See Ad Picas.

Ad Pica, a place in Italy, between Brixia and Ari-licia, West of the lake Benacus.

Ad Plumen, a place in Pannonia, corresponding to that which is now called Saint-Viën–Flam, in Croatia.

Ad Promillus, a place of Noricia.

Ad Gallum Gallinacum, a place of Africa propria, in the road from Utica to Cartaghe.

Ad Grano, a place of Italy, north of Clusium, and well of Cortona.

Ad Herennium, the name given to the port of Leghorn in Toscana; also to a small place in the island of Sarclania; and to another 12 miles from Gades, called Tempulum Hercu- lana.

Ad Heres, Cane, a place of Gaul, between Antipolis and Forum Julii, pertaining to the Oxybi.

Ad Interitis, a place of Italy, belonging to the Scrones, between Callis and Forum Sempontinus.

Ad Laco, a place of Pannonia, in the route from Sirmiun to Solona.

Ad Laminas, was situated between Varia and Carfeoli in Italy, and belonged to the Æqui.
Ad Laphadum, a place of Great Britain, supposed to be between Winchester and Southampton, and to be that which is now called South Stonum.

Ad Lippas, a place of Spain, between Celicionico and Sertice.

Ad Lullam, now Arguellas, in Gaul, belonging either to the Morini or Ambiani.

Ad Martis, the name given to different places in Umbria, Etruria, and the Alps.

Ad Matrem Magnam, a place belonging to the Hirpinii, supposed to be the situation of the abbey on Mont Vergine.

Ad Medias, a name given to a place in the island of Sardinia, to another of Infubria in Italy, and to another, called Meza, in that part of Latium in Italy inhabited by the Volsci.

Ad Morum, was situated in the route from Carthage to Calhulon, between Elicroca and Balli.

Ad Novum, a denomination given to several places, whose distance was nine miles from a more remarkable station; one north of Boville in the Appian way; another in Campania, nine miles from Capua; another, nine miles from Mediolana or Milan, now Marignan, according to Cluver; another in Venetia, south-east of Altium, and another west of Æmona; and another, denoting a station in Gaul among the Tolofates, between Tolosa and Badera.

Ad Novas, a place in Italy, near the mouth of the Rubicon, on the borders of the Adriatic gulf: another place in Italy belonging to the Sabines; another in Spain between Illerda and Tarraco; another in Etruria, south-east of Cofa, and another north of Clunium; and another in Upper Maris.

Ad Octavia, an appellation denoting the distance of eight miles from a well-known and principal place; one in Italy belonging to the Taurini, and another in Umbria, partly occupied by the Senones; and another in Doria Minor.

Ad Oliva, a place of Africa; in Numidia, south-east of Saldae, and east of Tubulpius; and also in Sicily, in the route from Agrigentum to Lyceburgum.

Ad Opulentos, a place of Campania in Italy, near the sea, and three miles from Pompei and Stabia.

Ad Palatium, a place in Venetia upon the Athein, four miles south of Tridentum.

Ad Pertice, a place near Ticinum or Popesc, still called Santia Maria del Pertice.

Ad Petras rubra, or ad faxa rubra, a place near Fidenza, now Borgoteto.

Ad Pirum, a place of Italy in the Appenines, 12 miles from Venusa, in Apulia. Another is also in the extremity of Italy in the Julian Alps, in the route from Aquileia to Æmona.

Ad Pirum, a place of Italy in the Samnium, and another, with the addition Philimenti, in the Adriatic gulf, between Metaurus and Sena Gallica.

Ad Pontum, a denomination given to several places which had bridges: one in Great Britain, now Lincoln; another of Boetica in Spain, between Gades and Corduba; another Æri, in Vindelicia; another, Ixia, in Norica; another, Muri, in Norica, now Muran; another, Sonti, south-east of Forum Julii.

Ad Publicanos, a place of Gaul, on the confines of the territories of the Allobrogi and Centrones, between Catusria, Mantala and Obtium.

Ad Quartum decimum, a place in Venetia, E. of Æmona.

Ad Quintana, a place of Magna Graecia, in Apulia; and of Italy in Latium, on the Latin way.

Ad Regiones, a place of Upper Media, on one of the streams which form the river Gyndes.

Ad Rotum, a place of Numidia, in Africa, between Cirta and Lambetha.

Ad Rotas, a place of Italy belonging to the Cenomani.

Ad Rubrata, a place of Boetica, in Spain, belonging to the Turdetani, and another of Mauritania, in Africa, between Calai and Ad Regias.

Ad Sabella, a place in Scythia, situated on the borders of the Black Sea, near the most southerly mouth of the Danube.

Ad Salinas, now Spatana, a small place on the Adriatic gulf, between the confines of the Pretutti and Velumni.

Ad Sima, a place of Italy, situated according to Cluver in Venetia.

Ad Septem Arae, a place in Spain.

Ad Septem Frates, seven mountains of Mauritania, known by the name of Abylia; at the bottom of which was a town called Spia, whence the modern Cetara.

Ad Septimum decimum, a place of Spain, 17 miles from Tarraco.

Ad Sex Insulae, small islands, whose situation is not precisely ascertained; but M. d'Anville places them near a small promontory, south of Malaca in Boetica, and north-east of Pariciata on the coast of Mauritania Cofaritensis.

Ad Sextus, or Ad Sylvis, a place situated by the Peutingerian tables on the Adriatic gulf, 12 miles from Sena Gallica.

Ad Sextum, a name given to two places in Italy; one in the Claudian way, north-west of Rome, and south-east of the Veii, and another in Etruria, south-west of Sena. It is also the name of a position in Gaul, Retis or Ararat, between the Arefi to the west, and Humisacro to the east.

Ad Silvanus, a position in Gaul, between Segodunum to the south-west, and Anderus on the north-west, on the frontiers of the Ruteni and Gabali.

Ad Silvium, or Ad Silvium, is placed by M. d'Anville in Apulia, between Venetia to the south, and Blera to the south-east.

Ad Solaria, a place of Etruria, in Italy.

Ad Sorruc, a place marked by Antonine, 25 miles from Emerita Augulia, in the road across Spain to Cesar Augusta.

Ad Speluncas, a small place of Italy, in Meffapia, on the sea-coast, west of Brundusium.

Ad Sponias, a place of Italy, in the Appian way, between the position of Tres tabernas and Forum Apuli.

Ad Stabulum, a position of Gaul, between Iliberia on the north-east, and Ad centuriones to the south; situate at the foot of the Pyrenees, and belonging to the Sarbones.

Ad Statum, a place of Etruria, in Italy, 25 miles from Arctium, and 12 from Clunium; another, between Labicum and Præneste, in the Labican way; another in Spain in the route from Valenti to Carthage; and another, in Paonia on the Danube, between Luffianum and Ripa Alta.

Ad Tabernam frigidum, a place of Etruria, in Italy.

Ad Tarum, a position in Italy on the Tarus.

Ad Telix conqua, a place of Africa, to the south of Byzacene.

Ad Titulus, a place of Liburnia, in the route from Terracina to Tariffa.

Ad Tres Insulae, small islands placed by M. d'Anville in a small gulf, south-east of Rufsdir, south-west of Siga, and nearly south of Charidenum, pertaining to Boetica.
AD

Ad tres Tabernas, a place in Italy on the Appian way, 17 miles from Aricia, called Calcello.

Ad Tresfium, is situated 30 miles, as the name imports, from Aquilia, now Trieste; another position in Gaul, 50 miles from Narbo Maritius, whence the itinerary reckons the distances.

Ad Tropae, a place of Italy in Brutium.

Ad Turres, a place of Sardinia, known by the name of Turrit Libidinos. It is also the name of a place, called Toures, in a part of Gaul, called the third Narbonnec, pertaining to the Suecters, north-east of Marilia, and south-east of Aquitania.

Ad Turres, a place on the Aurelian way, in the territory of Cernic; another, on the Appian way in Brutium, north of Vibo: another at the extremity of the prominent Circium: another, in Liburnia, on the road from Aquilia to Siga, south-east of Tarfatica; another in Spina, between Valtar and Cartagio; and another between Augusta Emerita and Augusta Caezarea. Ad Turres alba, is a place in Italy between Circium and Aquitania.

Ad Undaeum, a place of Venetia, well of Aqui- lia; in the road that leads to Altinum.

Ad Urbanus, a place of Campania in Italy, between Capua and Teanum, called by M. d'Anville, after Piny, Urbana, and also Colonia Sillana, from the colony established here by Sylla.

Ad Viciusum, a place of Italy, 20 miles from Rome, on the Flaminian way, south-west of Capena: another, in Lucania, on the gulf of Tarentum, north of Sybaris, and south of Heraclea; another, in Acha Minor, in the road from Trepzas to Satala, in Armenia Minor: and another, called by M. d'Anville Ad Vigeum, south-east of Tolosa, between Badora and Eluido.

Ad Viciorrius, a small place of Italy in the road from Sutula to Bononia.

Ad Villam Serviliam, a place of Numidia in Africa, 20 miles from Hippo Regius, in the way to Cirta.

ADA, in Geography, a town of Achaic Turkey in Nustria, about a league from the river Zacatur, in the road from Constantiople to Ifkhan.

Ada Gulf, lies on the east side of Kaffa Ismaite, and to the east of port Hadshilarch, having a town in the north-west part of it.

ADABA, in Ancient Geography, a town of Media.

ADAC, a lake whence one of the branches of the Tigris flows.

ADACHA, a town of the Palmyrene region in Aia.

ADAD, compounded of Ad with itself, was used, says Mr. Bryant (Antiq. Mythol, vol. i. p. 23.) for a supreme title, with which both kings and deities were honoured. Macrobius (Saturn. i. l. c. 23.) says, that it signified one, and was so interpreted by the Assyrians, who gave this name to their supreme deity. Mr. Bryant supposes, that what Macrobius renders one, should be the chief; and he observes, that in the language of the Syenites, and whenSingle, was conferred upon a Babylonish deity, but when repeated, it denoted greater excellence. We read of Adad, king of Edom. Gen. xxxvi. 35. 1 Kings xi. 14. And there was another of the same name at Damascus, whose son and successor was named Benhadad, 1 Kings xx. 1. The kings of Syria, according to Nicolaus Damascenus (see Jos. Antiq. i. vii. c. 5.) for nine generations had the name of Adad. The god Rimmon was styled Adad, Zechar. xii. 11. The feminine of Adad was Ada, and this was a sacred title, and appropriated by the Babylonians to their chief deities. The authors of the Ancient Universal History are of opinion, that Benhadad II. was deified by the Syrians, under the title of Adad or Aler. By Adad they meant the sun, and represented him with rays darting downwards to express his beneficence. But this honour would have been more fitly due to the prosperity of Hazael than of Benhadad, who was often unfortunate. And Josephus (Antiq. i. vii. c. 6.) informs us, that they were both deified. Adad was not properly a Babylonian deity, but one who had been deified by the ancient Syrians, and probably revived again after the destruction of the Babylonian empire, whose gods must have brought him into discredit. Adad, thus degraded, and afterwards reinvoked, was the sun, as well as Tiel or Baal, Osiris and others. Anc. Un. Hist. vol. i. p. 443. vol. iii. p. 301. 8vo.

ADADA, in Ancient Geography, was a town of Phledia to the south call of Seleucia. There was also a town of the same name in Syria, situate to the north-west of Palmyra, and at no great distance from it. We also find a place of this name mentioned by Josua, (ch. xv. 22.) and in the list of towns of Edom.

ADAD Rimon, a city of Judah, situate in the plain of Megiddo, in the valley of Jezebel, in the half-tribe of Manasseh; where Josiah, king of Judah, was killed by Pharaoh Necho, king of Egypt. It was afterwards called Maximianopolis, in honour of the emperor Maximilian. It is 17 miles from Caesarea in Palaetina, and 10 miles from Jezreel. Cant. 20.

ADAE, a town of Phrygia, which Strabo places at the foot of mount Ida.

ADAE, a people of Arabia, placed by Ptolemy in Egypt, in a country encompassed by mountains near the lower eataract of the Nile.

ADAGE, a sententious proverb or popular saying. Eraastus has made a large and valuable collection of Greek and Roman adages from their poets, orators, philosophers, &c. Mr. Ray has done the same with regard to the English; and Kelly has made a collection of Scots proverbs.

ADAGIO, in Music, one of the words used by the Italians to denote a degree or distinction of time. Adagio expresses a slow time; the slowest of any, as some have said, except grave. Used sublilntly, it signifies a slow movement. Sometimes this word is repeated, as adagio, adagio, to denote a still greater retardation in the time of the music.

Adagio has been said by Rouffeau and others to be the slowest degree of time in musical measures, except grave; but we think that exception erroneous. In Cordi's works and those of his contemporaries, we find that quavers in adagios, vocal and instrumental, are sung and played as slow as crotchetts in grave. An adagio in a song or solo is, generally more than an outline left to the performers abilities to colour: and the performer who is not enabled to interest an audience by the tone of his voice or instrument, and by taste and expression, should never be trusted with slow notes, in the performance of which the smallest defects are so easily discovered; and if not highly embellished, they soon excite languor and disgust in the hearers. The talent of executing an adagio well, in which performers of great powers of execution often fail, is a merit of the highest clas which a musician can possess.

ADAGUESA, in Geography, a town of Spain, in the province of Aragon, and situated on the Vero. N. lat. 41° 53', E. long. 2° 4'.

ADAGUS, in Mythology, a Pharianian deity, whom Bochart takes to be Hermaphroditus, the son of Venus and Mercury, from the similitude of sound forming of Adagus and Androgynus.

ADAJE, in Geography, a river of Spain, which runs into the Duero between Simancas and Tordesillas.
ADAIA, Porte de, a large harbour on the north-east of the island of Minorca, well sheltered by the mountains from north-west winds. It is north-east of mount Tossa.

ADAIR's Harbour lies on the west side of Falkland sound, and nearly opposite to Jordan's bay on the east coast. It is distinguished by a high hill to the north-west of it. Within the harbour the water is from eight to ten fathoms deep; but the numerous rocks and breakers on the coast are dangerous. This harbour is by some called Port Howard.

ADAL, in the sense of Paracellus, signifies that part of plants in which their medicinal virtue consists; or the pure and active parts of plants, separable from the impure and inert.

ADALARD, or Adelard, in Biography, the son of count Berard, grandson of Charles Martel, and cousin-german of Charlemagne, was born about the year 753. Having abandoned the court for the religious habit, he was nominated by the emperor to the abbey of Corbie, and afterwards appointed prime minister to Pepin king of Italy. In 823, he founded the celebrated abbey of New Corbie, in Sicily; and died January 2, 826, at the age of 72, much lamented by the virtuous and the learned. He was an excellent linguist, and denominated the Augustinian of his age. His principal work was, "A treatise concerning the order, or the state of the palatine, and of the whole French monarchy." Biog. Dict.

ADALBERON, Ascellinus, was an ambitious prelate, and a fervile courtier. He was consecrated bishop of Laon in 977, and died in 1030. He is the author of a rhetorical poem, dedicated to king Robert, of which an edition was published in 1653, in 8vo. by Adrian Valois, at the end of the panegyric on the emperor Berenger. It contains several curious historical facts. Biog. Dict.

ADALBERT, a German divine of the tenth century, archbishop of Magdeburg, was educated in the monastery of St. Maximin of Treves, and was employed in 961, to preach the gospel to the Russians. He was more successful after his return from this embassy, in his labours among the Slavonians, on the borders of the Elbe and Oder. He died in 981. Dupin's Eccl. Hist. 10th cent. vol. iv. p. 58.

ADALBERT, bishop of Prague, in the tenth century, was one of the first founders of the Christian religion in Hungary. He also preached the gospel in Prussia and Lithuania, where he was murdered by Sago, a pagan priest. Dupin, ubi supra. Mollem's Eccl. Hist. cent. x. vol. ii. p. 378, 8vo.

ADALIDES, in the Spanish policy, are officers of justice for matters that respect the military forces. In the laws of king Alphonso, the Adalides are mentioned as officers appointed to guide and direct the marching of the forces in time of war. Lopez represents them as a sort of judges, who take cognizance of the differences arising upon extremities, the distribution of plunder, &c.

ADALUS, in Techogyph., a name given by authors to the Sturgeon.

ADAM, in Biography, the first man whom God created, and the original parent of the whole human race. He was formed by an immediate act of divine power, out of the dust of the ground, as his name imports, on the fifth day in the first arrangement of the works of creation; and God breathed into his nostrils the breath of life, so that he became a living soul or person. Gen. ii. 7. We read also, Gen. i. 27, that God created man in his own image. He was then placed in the garden of Eden, a particular district which was previously ordained and adapted for his subsistence and accommodation. In process of time, probably after some experience of the inconveniences of solitude, and after he had found that the various animals which had passed in review before him, and to which he had given names, afforded no proper companion, he was provided with a suitable helpmate; who, being formed of a rib taken out of his side, when he was in a deep sleep, as the history informs us, Gen. ii. 21, was called Woman. Adam and Eve thus created as fit associates for each other, did not long enjoy, with the security and satisfaction of innocence, the happiness which was designed for them. In the garden, which was the appointed place of their residence, and from the productions of which they were to derive the means of their support, there was one tree, called the tree of the knowledge of good and evil, the fruit of which they were forbidden to eat; and the prohibition was enforced by the awful function, that in the day they did eat of it they should surely die, Gen. ii. 17. The woman, seduced by the misrepresentation of the serpent, and by the alluring appearance of the fruit, disregarded the prohibition; and having herself tasted it, gave it to her husband, who likewise shared her guilt; and they both became obnoxious to the threatened doom. The consequences of their transgression were shame and fear. The man was also subjected to labor, and the woman to the pain of child-birth, and to the dominion of her husband. They were both excluded from paradise, and their return to it was prevented by an awful apparition, i.e. by cherubins and by a flaming sword. Gen. iii. 24.

After their expulsion from paradise, they had several children; but of these the scripture records the names only of three, viz. Cain, Abel, and Seth. The life of Adam was prolonged to the age of 930 years. The time of the death of Eve is not recorded in scripture; but some have presumed to say, that she survived her husband ten years. Such is the concise account which the scriptures give us of the origin of the human race; but this account, even if we allow Moses to have been the writer of it, was not compiled till about 2500 years after the creation; and, in the opinion of many, it is either wholly, or in part, so blended with allegory, that it is not easy to give a satisfactory explanation of every circumstance to which it alludes. Whether it be understood literally or allegorically, it suggests many curious questions, which have furnished scope for much learned criticism, and for a variety of fanciful conjectures.

As to the etymology of the name Adam, the greater number of biblical interpreters have derived it from 아담, Adam, signifying the earth or mould, or as some render it, the red earth, of which he was formed. According to Mr. Bryant, 아Dam signifies fire, or chief, and in this sense it may be applied to the appellation Ad-am. This conjecture is confirmed by the title of the term protagony, or first-born, in Sanchoniatho, which seems to be the Greek translation of the Egyptian title of Adam, taken, as this author professes, from the pillars of Thoth; and also by a hint of that admirable scholar Sir William Jones, in his Asiatic Researches, who queries whether Adam may not be derived from Adon, which in Sanscrit means the first, and is the name of the first Men. Mr. Parkinson supposes the name Adam to be derived from 아담, Adam, used for Ebenen, (Gen. v. 1.) and thus to denote the likeness of God, in which Adam was created. Ludolphus (Hist. Ethip. p. 77.) deduces it from the Ethiopic Adon, which signifies beautiful, elegant, or pleasant, and refers it to the able effusion of his frame and shape, as being the matter-piece, to speak more humanum, of his creator. But whatever be the true etymology of the name, it is an appellative, rather than a proper name, and comprehends both the sexes.

The time of the year in which Adapa was created has been
been also a subject of diffusion. This has been most generally supposed to be the annual equinox, which is the 21st from which the year anciently commenced.

According to Blair, in his first chronological table, Adam and Eve were created on Friday the 28th October, ante Christi, 4004; and Adam died 3074 ante Christi, at the age of 930 years.

Another subject of inquiry has been the place where Adam was created, and in which his first habitation was assigned. See Eden.

A confiderable difference of opinion has prevailed with respect to the vigour of Adam's intellectual faculties, and the degree of knowledge which he possessed at the time of his formation. We may reasonably imagine, that, as our first parents were created in an adult state, they were immediately capable of the full exercise of their natural powers and faculties; and there is a certain dignity of intellect, as well as rectitude of will, that is probably implied in the expressions "of our image," and "of our likeness," in which God is said to have created them. Mr. Shuckford, however, (Creation, &c. of Man, p. 74, &c.) refers this expression to the structure of his body, which was superior to that of other living creatures, accordingly to Ovid's description, Os hominis fulmine detellis.—Metem. or to Cicero's (De Leg. lib. i.) Figuram corporis habilien et aptam ingenio humano detellis, &c.:—And he supposes, that this is an Hebrew form of speech, which refers to God whatever is most excellent in its kind. He adds, that this expression denotes his designation for immortality, so that he was born to die. But whatever were Adam's original powers, without exercise, and without experience, his actual knowledge must have been, in a very considerable degree, restricted and partial.

It seems, therefore, unreasonable and unnecessary to suppose, that he was endowed with a much greater comprehension and vigour of mind, and with a greater compass of knowledge than any of his descendants; and that he was, in real attainments, as well as in capacity of improvement, little inferior to higher orders of beings. The knowledge that was adapted to his condition, and that was subordinated to immediate use, was without doubt communicated to him at his first formation: and as he had no native prejudice, and no unreasonable propensity or bias to mistake, he possessed peculiar advantages for extending his knowledge, and more especially his moral improvement. But as religious principles, devout affections, and virtuous dispositions are established and strengthened by exercise and discipline, it may be supposed that, without some supernatural defence and assistance, which his history does not mention, he would be liable to be seduced and overcome by a temptation, which the maturity of habit, and the wisdom of experience might have enabled him to withstand. See Fall of Man and Original Sin.

Adam possessed, without doubt, the necessary powers of articulation, and the faculty of speech; but in the exercise of these faculties he must have been puzzled and perplexed; nor is it easy to conceive, that the few words of which even the scanty vocabulary that served his necessities consisted, could have been invented by him, nor the grammar of that language, which was afterwards enlarged and improved, could have been devised by him without a supernatural communication. See Language.

How long our first parents continued in paradise before or after their fall is a question, for the solution of which we have no sufficient evidence, nor indeed are such questions of any real importance. It is probable, that they were not removed to any great distance, and that they found scope enough for their attention and labour near the spot where they were first settled, and from which they were excluded, according to the literal acceptation of the scripture-history. The scriptures give us no information as to the place where Adam was buried. St. Jerome inclines to the opinion of some who think, that he was buried at Hebron, in the cave of Machpelah, afterwards bought by Abraham for a burying-place. The eastern Chriftians say, that he gave orders to have his body embalmed, and deposited in a cave on the top of a mountain, which cave was called Al-kénuz, from an Arabic word which signifies to lay up privately; and it is alleged, that this order was given to prevent his polliery from worshipping his relics. It is added, that he ordered his body to be placed in the midst of the earth, because thence should proceed his salvation, and that of his posterity. The primitive fathers generally believed, that he died in the place where Jerusalem was afterwards built, and that he was interred on Mount Calvary, on the spot where Christ was crucified; and where a chapel was erected in honour of him. Some of the Arabsians inform us, that he was buried on mount Aboucaïs, near Mecca; but the ancient Persians say, that he was buried at Serendib, where his corpse was guarded by lions at the time of the war of the giants.

As to the reveries and fables of Jewish Rabbins and Mahometan writers, they are feecerly worthy of being recited. As a specimen, however, the following particulars may be subjoined.

Some of the Rabbins say, that Adam was distinguished by his personal beauty, and that God, before he formed him, assumed a human body, after the pattern of which he was created. They also pretend, that his stature was so gigantic, that it reached even to the heavens, and extended from one end of the world to the other; and that it was reduced after his transgression, first to the measure of 100 ells; and, as others say, to 1000, or 900 cubits, which was done at the request of the angels, who were terrified at his enormous stature, or who were envious and jealous on this account. Thus they pretend he was able to pass through the ocean, which separated Eden from the other parts of the world. Similar to this is the description given by Polyphemus by Virg., Æn. L. iii. v. 664, and of Orion. Æn. i. x. v. 763. Writers of this class assert, that Adam was at first both male and female; and that he confitted of two bodies joined together by the shoulders, and that Eve was formed by merely separating the one body from the other. But more absurd even than this is the opinion of Paracelsus, (vid. Vofius de Philos. c. ix.) Negabat primos parentes ante lyphum habemis partes generationis hominis necessarios: crebros posse accidisse, ut humanum gutturi. The Jews, in order to exalt the importance of the rite of circumcision, affirm, that Adam was created in this state, and that one part of his transgression consisted in his attempt to obliterate the traces of it. Some of them have also imagined, that Eve was the forbidden fruit, and that Cain was the producìon of the serpent, &c.

The Mahometan writers, in their account of the creation, and first state of man, blend many fables with the particulars, which they seem to have borrowed from the Jewish scriptures. They say, that Azrael, notwithstanding the pre-illumination which he had received of Adam's rebellion, executed the commission for creating him, though the other angels to whom it was proposed had declined the office, and for this reason he was called the angel of death. The earth of which he was formed was, as they say, carried into Asia, to a place near Mecca, where it was prepared by the angels, and fashioned into the human form by God himself. The angel Eblis, afterwards the devil, dreaded a superior,
treated the materials of the human frame, which were left to dry for forty days, or as some say, so many years, with contempt. The clay, it is said, was animated by the Almighty, and endowed with an intelligent soul; and Eve was formed after Adam had been placed in paradise, out of his left side. This paradise Mohammed conceives not to have been on earth, but in the seventh heaven. When our first parents were cast down from paradise, Adam is said to have fallen on the side of Seruenda, or Ceylon, and Eve near Mecca; and after a separation of 200 years, they were conducted to each other by the angel Gabriel, on a mountain near Mecca, and afterwards removed to Ceylon, where they propagated their species. In this island there is a mountain called Picco del Adam, on which they drew the map of Adam's foot, of an enormous size. Sale's Koran, c. ii. p. 4. &c. The Rabbins and Mussulmans give strange reports of Adam's knowledge. They ascribe to him the invention of the Hebrew letters, and a degree of inspiration, which enabled him to write a great number of books on different subjects, particularly one on the creation, and another on the Deity. They say, that he was the author of the 92d psalm, which was composed immediately after his creation. We have also an account among the apocryphal writings of a book called the "Revelations of Adam;" and there is another mentioned by pope Gelasius, called "Adam's penance."

Adam and Eve are honoured among the Greeks on the Sunday preceding the festival of Christmass, and on Feb. 4, the first day of their Lent, they commemorate their exclusion from paradise with religious mourning and humiliation. In some Latin martyrologies there are fixed days for the commemoration of Adam; as March 25, April 24, and Dec. 24.

Of the opinion of Tatian concerning Adam, see Tattianiies.

Adam Melchior, a writer of the 17th century, was born in the district of Grotkow, in Silia, and educated in the college of Brug. He was appointed rector of a college at Hildenberg, where he published his first volume of ilustrious men, "Vita illiusiorum virorum," in 1615. This volume consisted of philosophers, poets, writers on polite literature, historians, &c. It was succeeded by another, in 1619, which treated of divines; by another of lawyers; and by a fourth of physicians, both of which were published in 1620. The subjects of these volumes were the lives of learned men, who were either Germans or Flemings of the 16th, and beginning of the 17th centuries: in 1618, he published a volume containing the lives of twenty divines of other countries. All his divines, however, were protestants. The Lutherans thought him partial, and will not allow his work to be a standard of the learning of Germany. He wrote other works, such as "Apographum monumentorum Heidelbergenses;" "Notae in orationem J. C. Scaligeri pro M. T. Ciceroone contra Ciceroonum Erafini;" and "Parodie et Metaphrasis Horatianae." The catalogue of the Bodleian library ascribes to him the "Hilloria ecclesiast. Hamburg et Bremen," which, according to Mr. Bayle, was written by Adam, a canon of Bremen, in the 11th century. This work begins with the reign of Charlemagne, and ends in the time of the emperor Henry IV. To this work is annexed a description of Denmark, and the other northern kingdoms, with an account of the religion and manners of the inhabitants. The last edition of it was printed at Holmbad, in 1670. Bayle gives to Melchior Adam the character of an indolent collector, and acknowledges himself much indebted to his writings. He died in 1622. Gen. Dict.

Adam, Scotus, a doctor of the Sorbonne, who lived in the 12th century. He was born in Scotland, and educated in the monastery of Lindisfarne, now called Holy Island, near Berwick upon Tweed. He afterwards went to Paris, and became a teacher of school divinity in the Sorbonne. Towards the close of his life he returned to his native country, and became a monk, first in the abbey of Melrose, and next in that of Durham, where he wrote the lives of Columbus, and of other monks in the 6th century. He also wrote the life of David I. king of Scotland, who died in 1153. His works were printed at Antwerp, in fol. in 1659. Biog. Dict.

Adam, Lambert Sigisbert, an eminent sculptor, was born at Nancy, in 1720, and first instructed by his father, who exercised the same profession. In 1719, he came to Paris for further improvement. From thence he went to Italy, where he spent ten years, and finished several considerable works, one of which, viz. the restoration of the mutilated group of the family of Lycomedes, discovered by cardinal Polignac, in the ruins of the villa of Marius, gained him great applause. He also formed a model for the fountain of Trevi, which was much approved, but he was prevented from executing it by the jealousy of the Italians. After being admitted a member of the academy of St. Luke, at Rome, he returned to Paris in 1753. Here he executed several designs for the decorations of palaces, gardens, &c. of which the most celebrated are, a group representing the union of the rivers Seine and Marne, at the cascade of St. Cloud, two groups of hunting and fishing, Neptune calming the sea, the triumph of Neptune at Versailles, the bas relief of the chapel of St. Adelaide, St. Jerome, Poetry, and Mars encreased by Love. In 1754, he published a collection of antique Roman and Greek sculptures, designed by himself, and engraved by able artists, in folio. Exceps of application brought on an apoplexy, of which he died in 1759. The style of his works is harsh and savage, resembling rocks by their deep cavities and aperities; but they manifest an acquaintance with the antique, and furnish specimens of patient thought and labour. Gen. Biog.

Adam, Nicholas Sebastian, second brother of the preceding, was born at Nancy, in 1705. From Paris, whither he went for improvement, he removed to Rome in 1726, and subsistently applied for nine years to the study and imitation of the antique, devoting his leisure hours to painting. In 1734, he came to Paris, and by his models of Clitie, and the sacrifice of Iphigenia, obtained the applause of the academy of painting. He also admirably succeeded in his model of Prometheus chained to the rock. His bas-relief for the chapel of Versailles, respecting the martyrdom of St. Victoria, is reckoned one of his best performances. He assisted his brother in executing the group of Nostereuse, and in 1740, he obtained the apartment of the deceased Rouet, in the Louvre, which is a favour granted only to excellent artists. In 1757, he was urged, by liberal offers, on the part of Frederick king of Prussia, to remove to Berlin. His younger brother, to whom the offer was made by the elder Adam, accepted the proposal; and Nicholas remained at Paris, where he was employed by king Stanislaus in executing a monument for his queen in a mausoleum near Nancy. His last performance was the Prometheus, which was greatly admired. This artist was estimable for the simplicity, integrity, and mildness of his character, which conciliated the friendship of his brother artists. He lost his sight several years before his death, which happened in 1778, at the age of 74. Gen. Biog.

Adam, Gaspar, was born at Nancy, in 1710, and pursued the fame course of studies with his brothers above-mentioned.

ADAM of Frankfurt. See ELSHEIMER.

ADAM, Robert, an eminent architect, was born in 1728, at Kirkaldy, in Fifeshire, and educated in the university of Edinburgh. Upon his return from Italy, in 1752, he was appointed architect to his majesty, but resigned this office in 1768, on being elected to represent the county of Kinross in parliament. The genius of Mr. Adam extended itself beyond the decorations of buildings, to various branches of manufacture; and besides the improvements which he introduced into the architecture of the country, he displayed great skill and taste in his numerous drawings in landscape. Such were his affluency and activity, that in the year preceding his death, he designed eight public, and twenty-five private buildings. The new university of Edinburgh, and many other considerable edifices were erected from his designs, and under his direction; and they are hinging monuments of his distinguished talents in the line of his profession. He died March 2, 1792, and his remains were interred in the south aisle of Westminster Abbey. His brother, James Adam, who died, October 29, 1794, was also eminent as an architect; and his abilities are apparent in the Adelphi buildings, and Portland place, in London.

ADAM, in Geography, a town of European Turkey, in Moldavia, ten miles north-north-west of Galatz.

ADAM, or Adam, in Ancient Geography, a town of Perza, on the banks of Jordan, where the river began to be dried up for the passage of the Israelites over against Jericho. Joshua, ch. iii. 16.

ADAM'S Apple, in Botany, a species of Citrus.

ADAM'S Bridge, or, according to Sir William Jones, "Raman Bridge," in Geography, a ridge of sands and rocks, extending across the north end of Manara gulf, from the island of that name, on the north-west coast of Ceylon, to Ramancote, or Ramancoil island, off Raman point.

ADAM'S Needle, in Botany. See Yucca.

ADAM'S Peak, in Geography, a high mountain in the island of Ceylon, in the form of a fagar-loaf, and terminating in a circular plain about 200 paces in diameter. The summit is covered with trees, and intersected with streams, and has also a deep lake, which supplies the principal rivers that water the island. This mountain is seen at the distance of twenty leagues at sea; but though its height is considerable, it is not equal to that of the Pic of Teneriffe. Lat. 5° 55'. Long. 80° 39'. See Adam.

ADAMAN. See Adam.

ADAM, a high mountain in Abyssinia, being one of the ridges of the range of mountains called Ami. Ami.

ADAMANT, one of the fenced cities belonging to the tribe of Nephtali, mentioned Joshua vii. 37, and called by the Seventy Armasthy, and by the Vulgate Edama. It was also called Nebbe.

ADAMANT, Adamas, in Natural History, an ancient name for a precious stone, by us called a diamond. Adama is used by Pliny ancient naturalists for the spume or foam of gold, which, not being malleable, is cast away. This is particularly called 

ADAMANT is sometimes also used for the Magnet, or loadstone; in which sense Skinner thinks it may be derived from the French aimant, which signifies the same.

ADAMANT, in Ecclesiastical History, a name given by some Chalilian historians to the followers of Origen, for named Adamantius, on account of his indefatigable industry in reading and writing, or the strength and acuteness of his reasoning, according to some; or rather, as Harnack says, because his name was Adamantius; however, Eusebius, (lib. vi. cap. 14.) this was a common name given to Origen, without assigning any reason for it. There was another person named Adamantius, and mentioned by Landor (works, vol. iv. p. 295.) as the author of a dialogue against the Marcionites, which he places about the year 326.

ADAMANTEA, in Mythology, the nurse of Jupiter in Crete.

ADAMANTINE SPAR, South adamantine. Corundum.—Nella corindone.—Corund. — Corund. We will consider Adamantinum Corundum, Linn. This stone is formed either crystallized or in masts. When crystallized its usual form is that of a regular hexagonal prism (CRYSTALLOGRAPHY, plate i. fig. 1.) of a rough surface, and but little external furite; this, however, being incapable of being split in a direction either perpendicular or parallel to its axis, is obviously not the primitive crystalline figure belonging to this substance. Crystals of adamantine spar are occasionally met with, which, instead of solid angles at the junction of the sides of the prism with the planes of the extremities, present alternate isofceles triangles of different sizes, but all forming solid angles of 122° 34', with the extreme planes of the crystal (fig. 2.); if by following this indication of nature we detach successively the crystalline laminae, we shall at length entirely have the hexagonal prism, and shall have in its place a rhomboidal parallelepipded (fig. 3.) of which the plane angles at the rhombs will be 86° 46' and 44° 12'; the solid angles at the summit will measure 84° 31', and that at the reunion of the base will be 94° 26'. Also, the diameter G H will be to the whole height E F as A B to B F (fig. 4.) The parallelepipded thus obtained, can be split only in a direction parallel to its faces, and must therefore always preserve the same form, which is that of the nucleus or primitive crystal. In some infall the solid angles of the prism are replaced by isofceles triangular planes, in fig. 2., but which form solid angles of 156° 42', with the planes of the extremities; hence results a new modification which shews itself in the crystalline varieties (fig. 4, 5, 6.) A third modification is produced by the gradual decrease in diameter of the hexagonal prism; the varieties of this class are mostly irregular, but some specimens exhibit a regular truncated hexagonal pyramid (fig. 7.)

Corundum crystals are procured from China and India; those from the latter country are in general the purest. Of the Indian variety the colour is grey, with flakes of green and light brown; its fracture is indented and sparry, sometimes vitreous; its external fracture is casual, but generally very slight, that of its cross fracture is feeble, but when broken in the direction of its laminae, it is resilient; in thin pieces, and at the edges of the crystals it is transparent; it is brittle, and of such great hardness as to cut rock-crystal and most of the gems. See Gray, from 3, 950 to 3, 957. The Chinese variety differs from the Indian in containing grains of magnetic iron are disseminated through its substance; in being generally of a darker colour, and having externally a chalyxy lustre; its specific gravity is rather greater, and its hardness is commonly somewhat inferior. There are two varieties known of corundum in masts, that from Bengal is of a purplish hue, and compact fracture, sp. gr. 3. 876. It is called by the natives corund, that
that from the coast of Coromandel is of a foliated texture, and feems in fact to be confufedly crystallized, but its ip. ge. is only 2. 785.

Adamantine spar is used throughout India and China for the purpose of polishing red and gems, for which its great hardneds renders it peculiarly well adapted. Of the mines of this ione, and the method of procuring it in China and Bengal we have no account, but some interesting topographical information respecting the corundum of the coast was procured by Mr. Greville in 1792. In the Mylore country, about four miles south of the river Cavery not far from Caro, is an excavation from six to fifteen feet deep, running east and west about a mile and a half in the direction of a vein of adamantine spar that traverses a bill of gritty granite. The matrix of the vein consists of granitic fragments cemented by corundum; mafles of this, weighing several pounds, are cut out with iron crowns, and then broken to pieces, among which the crystals of corundum are found: these are loaded on horses and bullocks, and distributed to the call of siliculators or polishers throughout India; its price, at Madras, is about six shillings a pound.

This mineral appears to have been first brought into Europe by Mr. Bulkle, a correpodent of Dr. Woodward, who, in his catalogue of foreign fossils, published about 1799, has the following notices: "Nella corundum is found in fields where the rice grows; it is commonly thrown up by field-rats, and used as we do emery, to polish iron." "Tella corundum, Post St. George, Mr. Bulkle. It is a taliy ipar, grey with a call of green; it is used to polish rubies and diamonds." In Dr. Woodward’s additional catalogue of foreign fossils, 1795, "Nella corundum is found by digging at the foot of hills about five hundred miles to the southward of this place. They use it as emery to clean arms, &c. it serves also to grind rubies by making it like hard cement by the help of fick les mixed with it. East India. Mr. Bulkle." From this time no farther information was obtained concerning it till about 1767, when Mr. Berry, feal embroider of Edinburgh, received from Dr. Anderson of Madras a box of crystals, with information of their being the material used by the Indian lapidaries to polish crytals and all gems but diamonds. They were found by Mr. Berry to cut agate, cornelian, &c. but for minute engraving were not equal to diamonds, in consequence they were hid aside as curiosities. Dr. Black ascertained their difference from all the known European minerals, and their hardneds gained for them the name of adamanite ipar. In 1784, Mr. Greville obtained specimens from India, together with the native name corundum, which ascertained their identity with Dr. Woodward’s specimens. A description of its externall characters by M. de La Metheir and Hauy appeared in the Journal de phyicque for January and March 1787. Its chemical composition, however, still remained unknown till Klaproth was enabled, by the liberality of Mr. Greville, in sacrificing some specimens for the purpose, to undertake its analysis. The extreme hardneds of the adamanite ipar, rendered the first attempt to decompose it imperfect; by the strong nitro-muriatic acid, nothing was separated but the iron, which is accidentally diffused through the Chinefe variety, and after this the most concentrated acids were digested upon it in vain. Carboeic potashe ignited together with it for two hours, was perfectly inefficual, and even eleven times repeated calcination and fusion with caufic fods produced only a partial decomposition. The refults of the firft analysis were principally aluminous earth, together with a matter that appeared to be either a mixture of aluminous and ficateous earth, or a new fimple earth with peculiar properties. In this state of the inquiry Mr. Kirwan, and feveral other eminent chemists, were induced to confider the adamanite ipar as containing an earth fui generis, which was called the adamanite, or corundum earth. Soon after Klaproth, having improved his method of analysis by the use of caufic potasfe as a fofent, undertook a second time the analysis of this uncommonly refractory foil in which he compleatly fucceeded, reducing the fupposed adamanite earth to aluminous and filex.

The Chinese ipar yielded
Alumine - - - - 84.
Oxyd of iron - - - - 7. 5
Silic - - - - - - 6. 5


The Philosophical Transactions for 1798 contain a valuable paper on corundum by Mr. Greville, which is the last addition that has been made to our information on this subject; here we find the first authentic account of the corundum mine in the Mylore, the charafteric differences between the Chinefe and Indian varieties, the crytallography of the mineral by Count Bournon, and a comparison between the characters of corundum, TOPAZ, RUBY, and SAPPHIRE.

Corundum is said to have been found in France, in the Forez, by Count Bournon, and in Bretagne by Moreve; of thefe, however, the latter at leat is faid by Hauy (Journal des Mines.) to be titaneat. Perhaps a mineral found by M. Raifte at Tirez, one of the Hebrides, which was fuppofed by him to be Jade, belongs more properly to adamanite ipar; its specific gravity is 3. 49, and in hardneds it corresponds with the matrix of corundum, that is, it will scratch glass readily, but not rock-criytal. Greville on corundum, Philof. Tranf. for 1798. Kirwan’s Mineralogy, vol. i. art. Adamanite Ipars — Klaproth’s Analytical Effays.

ADAMANTINAE T Росс, in the Linnean Sytem of Mineralogy, denote the fifth order of earths; which are chiefly composed of adamanite earth. To this order belongs one species, which is the adamanite or corundum.

ADAMARIS, in Geography, a district of Abyssinia, near the province of Wauldena, containing several considerable villages, that are inhabited by Mahometans; who by their number and strength contribute to the safety of the monks in that part of the country. It is so called from Adamas, which in the Amharic dialect signifies plain, the name of an adjacent mountain. The river Anzo runs in a contiguous vallay. Bruce’s Trav. vol. iii. p. 179.

ADAMAS, in Agriculture, a name given to the moon.

ADAMAS, in Geography, a town of Cordova in Spain, seven leagues from Cordova. Adamas is also a river of India, the source of which Poemen places in Mount Uxentus, and its mouth in N. lat. 18° 7’ and long. 142° 4’.

ADAMBAEA,
ADAMBEA, in Botany, a genus of the polyandria monogynia class and order; the characters of which are, that the corolla has from five to seven petals, the calyx is hemispheric, and parted into five or seven divisions; the capsule is fleshy, covered by the calyx, containing five or seven cells, and polypermous. Glennia mentions one species; but La Maree (Encycl. vol. i. p. 39.) describes two, viz. A. globus, which grows on the coast of Malabar, in sandy and rocky places, rises to about seven feet, and sends forth branches which are terminated by panicles of fine purple flowers, large, and resembling roses; and A. kiefert, which grows on the mountains of Malabar to the height of about nine feet; its branches of flowers resemble those of the former species.

ADAMI, in Geography, a town of Judah, in the tribe of Nephthali. Josaph six. 33.

ADAMI, Poetam, in Anatomy, a protuberance in the fore-part of the throat. Some fancy, that it is thus called upon a strange conceit, that a piece of the forbidden apple, which Adam eat, stuck by the way, and was the occasion of it. In reality it is only the convex part of the first cartilage of the larynx, called articularis, and thyroid. This is usually larger in the male than in the female subject.

The name Adam’s apple, is also given to a kind of fruit frequent in Italy, resembling a lemons, faid to be a good remedy against the itch. See Citrus.

ADAMIC Earth, is a name which some have given to common clay, called also terra inda, rubella, and lutum. Woodr. Method. Polll. p. 4. The occasion of the name is supposed to be, that this is taken for the adamabls, or ruddy earth, of which the first man was formed. This application is likewise given to the mud deposited by sea-water, which is a sediment of the moist and mucky parts contained in it.

ADAMITES, or ADAMIANIS, in Ecclesiastical History, a sect of persons who took upon them to imitate the nakedness of Adam; as if man had been reinstated in his original innocence. They are supposed to have been a branch of the CARCOPRATANS and BASILIDIANI. Prodicus was their author, according to the accounts given by Theodoret; though, according to Tertullian and Clement of Alexandria, the followers of Prodicus were never called by this name. Epiphanius is the first writer who speaks of the Adamites, and he places them towards the end of the second century.

He professes to have no certain account of these people; but he says, that they met together, both men and women, naked as they were born; and so performed their readings and prayers and other acts of religious worship. They are a kind of monks, who reject marriage, and they call their church a paradise. When they approached their places of worship, which were made warm for their accommodation, they took off their clothes; and when they left them, they clothed themselves again. Dr. Lardner is of opinion that there never were any such people; and to this purpose he adduces, that they are not mentioned by any ancient writer before Epiphanius, and that he had no certain account of them; nor does he give the least intimation of the period or period in which this sect appeared. He does indeed say, that the Gnostics prayed naked; but they were a wicked people, and profaned lewdness in their assemblies; whereas he represents the Adamites as endeavouring to imitate Adam and Eve, not only in their nakedness, but likewise in the innocence of their original state. But Dr. Lardner thinks that Epiphanius’s charge against the Gnostics is not true. Theodoret’s account of this sect was borrowed from Epiphanius, as he had no knowledge of Prodicus, the reputed founder of it, but what he received from Clement of Alexandria, who does not say any such thing of him. Besides, it is said that Prodicus was against praying at all; and therefore the Adamite custom of praying naked could not be derived from him. Lardner’s Works, vol. ix. 337—340.

A similar sect appeared in the twelfth century, under the direction of one Taulamus, known by the name of Tancheus, who propagated his errors at Antwerp in the reign of the emperor Henry V. This was followed by the TURULINS.

In the fifteenth century Picard pretended to re-establish the law of nature, which, according to him, conflicted in two things, viz. community of women and nakedness. His followers are said to have walked naked in the public places; whereas the original Adamites only put off their clothes in their assemblies. See Bevoarde, Brehren of the free-spirit, and Picards.

An ingenious writer, viz. Beaufort, has shown that the Adamitifin, i.e. the nakedness of these people, is a mere calumny, forged by their adversaries, the Calixtines and Papists, at the time when the Vaudois first appeared in that country. See Beaufort’s Dissertation at the end of L’Enfant’s History of the War of the Hugelites, and by the Dict. Adames, Picards and Prodicts.

Jocet and Moreri speak of Adamites in England; and indeed the Romish and reformed mutually reproach each other with having Adamites among them.

Adamites, a name also given by some writers to the first patriarchs, the sons or descendants of Adam by Seth; in which sense Adamites are the same with Sethites, and brand distinguished from Cainites. There are various traditions concerning the quarrels, wars, &c. between the Adamites and Cainites.

Adamites, Pre. See Pre-Adamites.

ADAMS, in Geography, a township of Berkshire county in the eclesiastical county of the Maffeachusets, containing 2440 inhabitants, about 140 miles north-west of Boston. In the northern part of this district, the mill-stream, called Hudson’s Brook, which rises in Vermont, and falls into the north branch of Hooffick river, has formed a deep channel, about 50 or 40 rods in length, and in some places 60 feet deep, through a quarry of white marble; and over this channel the rocks form a natural bridge, about 10 or 15 feet long, 10 broad, and 62 feet above the water.

ADAMSDORF, a town in Germany, in the Circle of Upper Saxony; one league east of Lippemueh.

ADAMSON, PATRICK, in Biography, a Scots prelate, who was born March 15, 1526, at Perth, of mean but honest parents, and had his collegiate education at the university of St. Andrew’s, where he obtained the degree of Master of Arts. In 1568, he left out for Paris as tutor to a young gentleman; and here he wrote a Latin poem on occasion of the birth of the prince, who was afterwards James VI. of Scotland, and first of England. In this poem he gave the titles of France and England to his own prince, which offended the French court, and occasioned his arrest and confinement. As soon as he was freed, he retired with his pupil to Paris, the capital of the duchy of Berry. During the massacre at Paris, he was employed in this place, and very narrowly escaped suffering martyrdom for the protestant religion. In his epistle, as he called it, he wrote two excellent Latin poems, which are still extant, viz. a poetical version of the Book of Job, and the tragedy of Herod, which was written by an angel. In 1573, he returned to Scotland and entered into holy orders, and officiated as minister of Paisley. In 1575, he was appointed one of the commissioners...
millions for settling the jurisdiction and policy of the church, by the General Assembly; and being in the next year deputed to report their proceedings to the Earl of Morton, then regent, he was raised by this nobleman as one of his chaplains, and afterwards advanced by him to the archbishopric of St. Andrew's. This preference subjected him to various disputes with the General Assembly, which continued for several years. In 1577, he compiled a catechism in Latin verses for the use of the young prince, which was much admired and applauded in England, France and the Low Countries, where the author was already known by his Latin translation of the Confession of Faith, which was printed in France, during his residence in France, at the hazard of his life. In 1582, he was seized with a disorder, for the relief of which he took some simple medicine that was recommended to him by an old woman. This woman was charged with witchcraft, and within three or four years executed at Edinburgh; and the prelate was traduced by his enemies for applying to the devil in order to save his life. The archbishop, however, recommended himself to the favour of King James VI. by zealously defending the episcopal order; and he was sent as his ambassador to Queen Elizabeth, which office required his residence in London for some years. Queen Elizabeth was jealous of his popularity, as a preacher, and dreading the impressions which he made on the minds of the people in favour of the young king, his matter, prohibited his preaching during his stay in her dominions. Soon after the execution of the first earl of Gowrie, viz. in 1584, the archbishop was recalled, and sat in the parliament held at Edinburgh, and concurred in enacting several laws for settling the peace of the kingdom, and for establishing the king's authority in ecclesiastical offices. Many attempts were still renewed for degrading his reputation, and making him odious to the people; nor was the royal declaration of the reasons which induced those laws, sufficient to restrain them. At a provincial synod, held at St. Andrew's in 1586, the prelate was accused and excommunicated; but upon his submission at the next General Assembly at Edinburgh, he was absolved from the excommunication. In 1588, a commission was granted by the General Assembly, before which he was cited, for trying him on account of various crimes, with which he was charged. In the beginning of next year, he published the Lamentations of Jeremiah in Latin verse, which he dedicated to the king, and in which he complained of his hard usage; and at the close of the year he published a familiar translation of the Apocalypse, together with a copy of Latin verses, addressed to his Majesty, and deploring his distresses. His application, however, was of no avail. The revenue of his see was granted to the duke of Lenox, and the prelate, with his family, were literally reduced to the want of bread. The scanty relief he obtained was procured for him in the most humiliating manner; so that he lingered out a mortifying existence till the latter end of the year 1591. His character has been very differenty appreciated by persons of discordant sentiments in religion and politics. It is generally allowed that he supported, under the authority of the king, opprobrious and injurious measures; and that his bigotry and timidity involved him in the difficulties and disgrace which beset the close of his life. During the reverse of his condition and the trials with which he was exercised, he manifested sentiments of pious resignation. Of his learning there is no question; and he is said to have been one of the most polite prelates of the age in which he lived. Besides those pious works, which were collected and published in a 4to. volume, by Mr. Wilton, this prelate wrote many things which were never published; such as fix books on the Hebrew republic, various translations of the prophets into Latin verse, predictions on St. Paul's epistles to Timothy, various apologetical and funeral orations, and a very candid history of his own times. Biog. Brit.

ADAMSTOWN, in Geography, a town of Lancaster county in Pennsylvania, containing of about 40 houses; 20 miles north-east of Lancaster.

ADAMUS, in ALCHEMY, is used to signify the philosopher's stone, which perfons addicted to this kind of science call an animal, and, as they say, has carried its invisible Eye in its body, ever since they were united by the creator.

ADANA, in Geography, a town of Natolia, or Asia Minor, in the province of Caramania. It is situated on the river Choqueen; on the banks of which, is a small but strong castle, erected upon a rock. The water of the river is brought to the town by means of water-works, which convey it into the several fountains; and a bridge of 15 arches leads to these works. The climate is healthy, and the winter mild; but the summer is so hot as to render it necessary for the inhabitants to retire to the neighbouring mountains, and to shelter themselves in groves and grottoes. The adjacent country is rich and fertile, and produces melons, cucumbers, pomegranates, pulse and herbs of all sorts through the year; besides corn, wine and fruits in their proper season. Adana is much report to by the inhabitants of the other towns of Cilicia, especially from the mountain side, for its wines, corn and other fruits, which are hence dispersed into the most barren parts. It is about 30 miles north-east of Tarfo. N. lat. 38° 10'. E. long. 36° 12'.

ADANA, in Ancient Geography. See ADEN.

ADANATES, a people of the Cottian Alps, called by Pliny Edentar.

ADANI INFULA, two islands of the Red Sea, according to Ptolomy.

ADANO, see STURGEON.

ADANSON, Michael, in Biography, was born at Aix in Provence, in April 1727, and at a proper age he was sent to Paris, where he prosecuted his studies in medicine, botany, and agriculture with singular zeal. He was a pupil of the celebrated Reaumur. In the year 1748, he went to Senegal, where he spent five years in examining the productions found in the neighbourhood of the famous river of that name. In return for some valuable communications respecting the geography of the country, and on the plants and animals he had discovered there, which he sent to the Royal Academy, he was made one of their corresponding members. On the death of Reaumur, in the year 1759, he was elected a member in his place, and about the same time was made honorary member of the Royal Society of London. At the end of five years, he returned to Paris, where he published his Histoire naturelle du Senegal, 4to, containing observations on the diseases incident to hot climates; and in 1763, his Famille des Plantes, 2 vol. 8vo.

In February 1775, he presented to the academy a plan of a natural history which he did not live to perfect. The time of his death, which happened soon after, is not precisely known.

ADANSONIA, in Botany, the name of which is derived from Mr. Adanson, above mentioned, is a genus of the monocotyledonous order and polyandra clus, and belongs to the natural order of submersa and Molene of Jussieu. Its characters are, that the calyx is a one-leaved semiquinquefidi, cyathiform perianthium, with divisions revolute, and deciduous; the corolla consists of five, roundish, nerved, revolute petals, connected by the claws with each ether, and the stamina: the stamina have
have numerous filaments united at bottom into a tube, which they crown, expanding horizontally: the pillifmm has an ovate germ, very long, tubulous and variously distorted style; the stigmata are many (10) prismatic, villous and radiate-expanded: the pericarpium is ovate, woody, not gaping, ten-celled (from 10 to 14) capsule, with farinaceous pulp, and the partitions membranaceous: the seeds are numerous, kidney-shaped, rather bony, and involved in a friable pulp. The Adansonia digitata, Ethiopian four-gourd, or Monkies' bread, called also Ahafo, Guina-banana and Baobab, is the only known species of this genus. See BAOBAB.

ADOUS, in Geography, a people of Africa, residing on the ivory coast in the kingdom of Sacee.

ADAPTER, in Chemistry. See ADOPHER.

ADAR, in the Hebrew Chronology, the 12th month of the ecclesiastical year, and the 6th of the civil year. It contains only 29 days, and answers to our February, and sometimes enters into the month of March, according to the course of the moon. On the 7th and 13th days of this month, the Jews observe two fasts; the former on account of the death of Moses, and the latter called that of Esther, in commemoration of the conspiracy of Haman. On the 9th they have a fast in commemoration of the feasts in between the schools of Shammai and Hillel. The 12th is a fast in honour of two proselytes at Laodicea, who preferred death to the violation of the law; some observe the 13th as a fast in memory of the death of Nicanor, an enemy of the Jews. The feasts of Purim are celebrated on the 14th and 15th days; the latter on the 14th (Esther ix. 21.) and the greater on the 15th day. The 17th is observed in commemoration of the Sages of Israel, who escaped from Koifk, a city of Arabia, whether they were driven by the persecution of Alexander Jannaeus. The 20th is observed as a fast in remembrance of the rain obtained in a time of drought, during the reign of this prince. The dedication of the temple of Zerubbabel was on the 23rd day, Ezra vi. 16.; and the 28th was observed in commemoration of the repeal of the decree by which the kings of Greece had forbidden the Jews to circumsice their children, to observe the sabbath, and to decline foreign worship. Selden de Syned. i. iii. c. 15. Megillat. Tanannah et Gemara.

As the lunar year is shorter than the solar by 11 days, which in three months amount to about a month, the Jews then insert a 13th month, which they call Adar, or a second Adar, consisting of 29 days. This intercalation postpones the great feasts, &c. for a whole month.

ADAR, in Geography, a city in the tribe of Judah. Joshua xv. 3. Eusebius places another town of this name in the neighbourhood of Lidda or Dipolos, in the district of Thamm.

ADARCE, in the Materia Medica of the ancients, a faltik humour, concretting about the flanks of reeds and other vegetable matter, in form of incrullations. The ancients speak of adarce, as chiefly produced in Cappadocia and Galatia, though we also read of it in Italy; and also of a native kind produced in Indian reeds, much as fuglar in the cane. Its colour is like that of the fine powder of the African One, or Sarcophagus, and its fibillance is lax and porous, much like the balsam sponge; so that it might be called the balsam sponge of the marbles. It is a topic adapted to rub and leath the skin in a leprous, fun-burning, tetter, freckles, and similar blemishes, being on the whole of an acrimonious quality. Dr. Plot describes it in his natural history of Oxfordshire.

The incrullations often seen about our springs, are very different in their nature and qualities from the adaren of the Greek physicians. VOL. I.
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on the banks of this river, in which Flamininus was victorious over the Insulan Gauls.

Alda is also the name of a small district in the duchy of Milan, where Louis XII. gained a victory over the Venetians in 1509.

Alda, El, in Zoology, a species of small lizard described by Mr. Bruce, and represented as a native of Arkansas beyond the rains, in the situation to which he refers the ancient island and city of Meroe. Its length is six inches and a half; its body is round and tail of the same form, but very sharp pointed; its forehead is flat, of a conical shape, and rounded at the end; the head is darker than the body, and its face covered with black lines crossing one another at right angles; its eyes are small, and defended by a number of strong black hairs which serve for eye-lashes; its upper jaw projects beyond the under, and its jaws are furnished with several short and fine teeth; its ears are large, open, and nearly round; its body is of a light yellow colour, crooked with eight black bands: the scales are close, and large along the back, and their surface is polished: its legs from the shoulder to the middle toe are near one and three-fourths of an inch long, and its feet have five toes, each of which is furnished with a brown claw tigt at its end with black. Its motion is very swift, though it crawls with its belly almost close to the ground. It burrows in the sand, but comes out in the heat of the day to bask in the sun; and when it is not much frightened, it will shelter itself behind stones, or in the withered roots of the abietinum when they are dried so as to be nearly of its own colour. This is one of the few lizards which the Arabs believe to be free from poisonous qualities, and they ascribe to it many medicinal virtues. It is thought to be a certain remedy for the elephantiasis; and to be efficacious in cleaning the skin of the body and the face, from cutaneous eruptions; and it is also used against films and tuleusions of the eyes. Such are the virtues ascribed to it by Arabian authors.

ADDA, in Geography, a town according to Ptolemy of Mefopotamia.

ADDAE, in Zoology, the name by which the Africans call the common Antelope.

ADDAEA, in Ancient Geography, a town of Asia in the southern part of Mefopotamia, near the Euphrates; placed by Ptolemy in lat. 33° and long. 77° 15', and probably the same with Ababbu.

ADDÆUS, a river of Asia, which is supposed to be the Aδδεια of Ptolemy, and the Abadius of Ptolemy.

ADDEPHAGIA, compounded of add, much; and θης, I eat, in Medicine, a term used by some physicians to denote a greediness in children, whereby they load themselves with new food, before the old is digested. Some use Addephagia in a more extensive sense for voraciousness in general, so as to comprehend the Bulimia, Pica, and Malacia.

ADDER, in Zoology, a venomous reptile of the serpent kind, more usually called a Viper. See COBWEB. The adder is sometimes confounded with asp; thus the deaf adder, spoken of in the English Bible, is not properly the adder, but the asp. Calmet.

The adder differs from the snake, as the former is much shorter for its bulk, and especially its tail below the vent; that it is marked on the back with black lines or spots, which the snake has not; that its belly is blackish, and of one colour, whereas the snake's is party-coloured, of a pale yellow and blue; that it never grows to the size of some snakes; and lastly, that it is viviparous, whereas the snake is oviparous.

Adder, Sea, in Ichthyology, the English name of the Synaphes Typhle. See Sea-Adder.

ADDER, water, in Zoology, a name given to the Natrix. See Cobweb.

Adder's Bank, in Geography, a flux which lies off the north-west point or entrance of the river Ilfiguibo, in Guinea, in South America, which, with some others, extends far into the sea, and reaches to Cape Nassau, or the east point of the river Fombaron.

Adder-Bolts, in Zoology. See Dragon-Flies.

ADDERGY, in Geography, a village in the district of Salent, or Talent, in Abtilia, not far from the river Teccizze, situate amongst rugged and barren mountains, and surrounded by a thick wood in form of an amphitheatre, which is full of lemons and wild cirmsoins. The river nai-lumi rises near the village, and precipitating into a cataract 150 feet high, at some distance discharges itself into the Teccizze. N. lat. 13° 24', 56°. E. long. 37° 57'. Bruce's Trav. vol. iii. p. 170.

Adder-Sting is used with respect to cattle when they are grazing, by any kind of venomous reptiles, particularly the adder. Dogs are peculiarly liable when hunting to this accident; and if relief is not obtained it sometimes proves fatal. The symptoms are great pain, anxiety, and swelling of the wounded part; after which, the body swells universally.—Oil has been given with advantage, as likewise onions: but the remedy most to be depended on is the caustic volatile alkali, which is the cau de luce of cabinets, the aqua ammoniaca pura of the college dispensatory, and the ful volatile of the shops. To a horse or ox two moderate tablespoonfuls may be given in half a pint of milk; to a large dog three tea-spoonfuls in the same manner, and to a lesser dog or other small animal a proportional dose. Whatever is given internally may with propriety be applied externally to the wound.—The adder is perhaps the only animal in our island whose bite occasion any considerable morbid consequences; the goat-fucker, the hedge-hog, and the shrew-mouse, are animals perfectly inoffensive, and incapable of inflicting any venomous wound.

Adder's Tongue, in Botany, a medicinal plant, so called either from its resembling, or its curing, the bite of a viper. It is more commonly called Ophioglossum. This is a spring plant, and is only to be found in April and May. It is not uncommon in wet meadows, and is easily distinguished among the other spring plants by its spike or tongue. It is esteemed one of the best vulnerary herbs this country produces; but it is more in use among the common people than in the shops. They give its juice internally, and use the herb bruised, or an ointment prepared from it with hard, or May-butter, externally, at the same time. Farriers, &c. prepare an ointment of this herb, called adder's tongue ointment, used as a remedy against the bites of venomous beasts. Phil. Trans. vol. xlix. pt. ii. n°. 112. p. 853.

Adder's Wort. See Bistort.

Addextratores, or Adextrarii, in the court of Rome, denote the pope's mitre-bearers. Some suppose that they are thus called, on account of their walking at the pope's right hand, when he rides to visit the churches.

Addice. See Adze.

Addico. See Addictio.

Addicti, in Antiquity, involuntary persons, or those who being sentenced to pay a debt, but unable to do it, were adjudged to a temporary kind of servitude to the creditor. In this sense addingi were a species of servi; from whom, however, they differed in this, that a slave, when discharged, became a libertus; whereas an additius became ingenuus. Again, a slave could not be discharged without the consent of his master; whereas the addictus was discharged.
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charged of course when his debt was satisfied. Pitie, Lex. Ant. and Calv. Lex. Jur.

ADDICTIO, Addiction, in the Roman Law, a transferring or palling of goods to another, either by sentence of a court, or in the way of sale, to him that bids most for them. The word stands opposed to adiction or burdenation. It is formed of addicio, one of the flat words used by the Roman judges, when they allowed the delivery of the thing or person on whom judgment had passed. Hence goods, thus adjudged by the prior to the right owner, were called bona addicti; and the debtors delivered up, in like manner to their creditors to work out their debt, were called servi addicti.

Addictio in debi, denoted the adjudging of a thing to a person for a certain price; unless by such a day the owner or some other person gave more for it.

ADDING, Anthony, in Biography, finished his studies at Trinity College, Oxford, where he took his degree of doctor in medicine, 1741. He then settled at Reading, in Berkshire, and there acquired considerable reputation for his judicious and successful method of treating diseases. About the year 1754, he came to London, and in 1756 was made Fellow of the Royal College of Physicians, and soon attained that eminence in his profession, to which he was entitled by his genius and talents. In a few years after, the indifferent state of health obliged him to quit London, he returned to Reading, where he opened a house for the reception of materia medica patients. In 1780 he was sent for to visit his present Majesty, then labouring under a severe fever, and was the first of the physicians attending him, who gave a favourable prognosis of the event of the complaint, which was soon after verified, to the great satisfaction of the country. The doctor died at Reading, on the 21th of March, 1790. While practising in London he became acquainted with the great Mr. Pitt, afterwards Earl of Chatham, with whom he lived in the strictest intimacy. It was on the recommendation of his lordship's son, then Chancellor of the Exchequer, that he was called on to visit his Majesty. By the same interest Henry Addington, Esq. his eldest son, was made first speaker of the House of Commons, and having filled that arduous office, nearly through two parliaments, with great reputation, he was raised, by his Majesty, in March, 1801, to the high dignity of Chancellor of the Exchequer, when his friend and patron had resigned.

The only publication we have of the doctor's is an essay on the use of tea, printed 1753, containing an account of a method of preserving water sweet in long voyages. This was proposed to be effected by mixing a portion of the acid of tea with the water. A more effectual mode has been since discovered by Mr. Henry of Manchester.

ADDISON, Lancelot, in Biography, the son of a clergyman of the same name; was born in the parish of Croftly Ravenworth, in Westmorland, in the year 1662. Having received the rudiments of classical learning in the grammar school of Appleby, he was sent to Queen's College, Oxford, in 1676, and admitted to the degree of bachelor of arts in 1677, and distinguishing himself by his genius and application, he became master of arts in 167, and in 1685 he was elected to one of the Ferra filli for the act which was celebrated in that year. As in the orations delivered on this occasion he recited on the orations then in power, he was obliged to resign and ask pardon on his knees. After this he soon retired from the university, and chose for his retreat the neighbourhood of Petworth in Sussex, where he zealously propagated principles of loyalty to the king, and of attachment to the church. Upon the restoration of King Charles II. he was recommended to Mr. King, bishop of Chichester, who would have provided for him, if he had not previously engaged to go to Dunkirk, as chaplain to the garrison. When that place was delivered up to the French in 1662, he accepted the same office to the garden of Tangier, but returned to England in 1670, and was made one of the chaplains in ordinary to the king. After struggling with some difficulties by the loss of his chaplainship at Tangier, he obtained a rectory in Wilt, and one of the prebends in the cathedral church of Sarum; and in 1675, took the degrees of bachelor and doctor of divinity at Oxford. Thus advanced and decently provided for, he lived in the country with hospitality, discharged his parochial duty with diligence, and devoted his leisure hours in writing on behalf of religion and the established church. In 1683 he was installed into the deanship of Litchfield, and in 1684 collated to the archdeaconery of Coventry, which he held with his deanship in commendam. After the Revolution he might, it is said, have been made a bishop, if he had not, in the convocation of the preceding year, and on other occasions, manifested a degree of zeal for the church which afforded a pretext for misrepresenting him to persons in power. His integrity, however, was unquestionable, and his literary reputation universally acknowledged. He departed this life on the 20th of April, 1703, in the 71st year of his age, and was buried in the church-yard of the cathedral at Litchfield. He was twice married, and had three sons and three daughters by his first wife; but by his second wife, who survived him, he left no issue. The treatises which he published are as follow: viz. 1. The Fable of Fables, or a Short Account of the Revolutions of the Kingdoms of France, Morocco, etc. 1671, 8vo. 2. The present State of the Jews, &c. with an annexed Discourse on the Mifchins, Gemara, and Talmud, 1676, 8vo. 3. The primitive Institution, or a Rationale Discourse on the Mifchins, &c. 4. A model Essay for the Clergy, &c. republished by Dr. Hicke in 1679, 8vo. 5. The First State of Mahometanism, &c. 1678, 8vo. 6. An Introduction to the Sacred Books, &c. 1681; republished with an appendix, called the Communicant's Assistant, etc. in 1686, 12mo. 7. A Discourse on the Practice of the Church, &c. 1688, 12mo. 8. The Catechumen, 1690, 12mo. 9. An historical Account of the Church, denying the Headship of Christ, 1696, 12mo. 10. The Christian's daily Sacrifice, or Right Performance of Prayer, 1698, 12mo. 11. An Account of the Millennium, the genuine Use of the two Sacraments, viz. Baptism, and the Lord's Supper, with the Christian's Obligation frequently to receive the latter.

ADDISON, Joseph, the son of Dean Addison, the subject of the preceding article, was born at Milton, near Abingdon, in Wiltshire, May 1, 1672, and being unlikely to live, was baptized the same day. Mr. Tyson says, that he was laid out for dead as soon as he was born. At the Charter-House, whither he was removed at an early age, and where he was under the tuition of Dr. Ellis, he commenced an intimacy with Mr. afterwards Sir Richard Steele, which lasted during life. At the age of 15 he was entered of Queen's College, in Oxford; and there he soon acquired an elegant Latin style, of which a specimen appeared in a copy of verses that fell accidentally into the hands of Dr. Laurence, afterwards provost of Queen's College, in 1687, and which induced him to procure the election of Mr. Addison as a deacon of Magdalen College in 1689; where he took the degrees of bachelor and master of arts. His Latin poetry, in the course of a few years, gained him the reputation of a great poet; and his poems in this language, eight of which were published in the second volume
volume of *Musearum Anglicarum Analysa*, were so much approved, not only in both universities, but among foreigners, that the celebrated B点燃 was led to conceive a very favourable opinion of the English genius for poetry, from these specimens of it, and to speak of the author in high terms of commendation. The first exhibition of his talents in English poetry was a copy of verses addressed to Mr. Dryden in the 22d year of his age, which was very much admired by the bell judges. This was soon succeeded by a translation of the 4th Georgic of Virgil, highly commanded by Mr. Dryden, and a Discourse on the Georgics, prefixed to Mr. Dryden’s translation, which is allowed to possess the distinguishing characters of just criticism. Amongst other poems, which appeared in 1694, there was one which contained an account of the greatest English poets, addressed to Mr. H. Sacheverell, with whom he seems to have been intimate; and whose suffer he is said to have courted, though their intimacy was afterwards interrupted by the author’s adherence to the political principles which Mr. Sacheverell defected. The subject of his next performance was one of King William’s campaigns; and this poem, which was addressed to the Lord Keeper, Sir John Somers, and much approved by him, engaged the attachment and patronage of this eminent statesman.

Mr. Addison having resented urgent solicitations to enter into holy orders, and abandoned a resolution which he seems to have once formed, obtained, from the friendship of Lord Somers, an annual pension of 300L. which enabled him to gratify his inclination of making a tour to Italy towards the close of the year 1699. In 1701, he tranferred from Italy an epistolary poem to (Montague) Lord Halifax, which some have pronounced as the best of his performances. On his return he published an account of his travels, dedicated to the Lord Somers. Upon the death of King William, his pension was discontinued, and in consequence of the exclusion of his friends from the ministry, he remained for a considerable time inactive and unrecompensed. However, in 1704, Lord Halifax recommended him to the Lord Treasurer Godolphin, as a fit person to celebrate the Duke of Marlborough’s victory at Blenheim. Mr. Addison was engaged in a manner peculiarly respectful to undertake this important office; and this produced the poem, intitled the *Campaign*, which was received with very loud and general applause, and which will be admired as long as the victory is remembered. In 1706 the author was appointed under secretary of state; and about this time he composed his inimitable opera of *Rofamond*, and he also assisted Sir Richard Steele in his play called *The Tender Husband*, to which he wrote an humorous prologue. In 1709 he went over to Ireland as secretary to the Lord Lieutenant, the Marquis of Wharton, where her Majesty conferred upon him the office of Keeper of the Records in that kingdom, with an augmented salary. In this year the *Tatter* appeared; the author of which was discovered by Mr. Addison to be his friend Mr. Steele, by an observation on Virgil, which he had communicated to him. In consequence of this discovery he afforded to the author such affiance as induced him to lay open of it, that he feared by this means, like a ditefled prince, who calls in a powerful neighbour to his aid; that is, that he was undone by his auxiliary. The *Tatter* being discontinued in 1711, was succeeded by the *Spectator* upon a plan concerted between Mr. Steele and Mr. Addison. It commenced, March 1, 1711, and was concluded, September 6, 1712. Mr. Addison’s papers in this work, the excellence of which time has very highly appreciated, are marked by the letters that form the name of the Mule Clio. It is said, that when his book-seller came to him for the *Spectator*, Bayle’s Historical and Critical Dictionary always lay open before him; and that he was so extremely nice in his proofs composition, that when almost a whole impression of a *Spectator* was worked off, he would stop the press, to insert a new preposition or conjunction. Of the value of this publication, and of the good sense that directed the judgment and taste of the British nation at the period in which it was written, we shall form a very favourable opinion, when we consider that 20,000 copies were sometimes sold in a day. An attempt was made to continue it by other ingenious writers; but it proved unsuccessful. Eighty numbers were published, to which Mr. Addison contributed about a fourth part, and the formed an eighth volume. The *Guardian*, in which Mr. Addison had a principal concern, amused the town in the years 1713 and 1714; his papers are marked by a hand. Two numbers, in a paper called the *Lover*, were also written by him. During his travels, Mr. Addison executed a design, which he had conceived at an early age, of writing a tragedy; and in 1713 appeared his famous *Cato*, with a sublime prologue by Mr. Pope, and an humorous epilogue by Mr. Garth. It had an uninterrupted run of thirty-five nights; and it was read with a satisfaction and commendation equal to the eagerness and pleasure with which it was attended on the stage. It was translated into French, Italian, and German; and the Jesuits at St. Omer made a Latin translation, where it was acted by their pupils with great magnificence. The folio of Cato was rendered into Latin verse by Bishop Atterbury, in a style worthy of the sublime original, and which would have been admired even by the critics in the court of Augultus. The author had intended to have written another tragedy, under the title of *The Death of Socrates*: but the offices and honours which were devolved upon him in his advancing years, prevented the accomplishment of his purpose. He was likewise under a necessity of declining another work which he had projected, viz. that of composing an English Dictionary upon the plan of the Italian Della Crusca; in his project for this purpose, he confidered the writings of Archbishop Tillotson as the chief standard of our language. During the period in which the Earl of Sunderland was Lord Lieutenant of Ireland, he was his secretary; but on the removal of the Earl, he was appointed one of the Lords of Trade. In 1715 he began to publish the *Freeloader*, which is a kind of political spectator, and admirably conceived and executed, at a period of discord, for the purpose of removing prejudices, settling the government, and making his country happy. This admirable collection of papers contained fifty-five numbers, the last of which was published June 29, 1716. About this time he also published his verfs to Sir Godfrey Kneller, on the King’s picture, and another copy to the Prince of Wales, with his tragedy of *Cato*. In 1716 he married the Countess of Warwick, without deriving from the connection, as it has been said, any great addition to his happiness. In the following year, King George I. appointed him one of his principal secretaries of state; but the application and parliamentary attendance which this office required, concurred with an athermatic disorder, to which he was subject, in impairing his health, and hastening his dissolution; and he was, therefore, under a necessity of resigning it, in lieu of which he had a pension of 1500L. a year. His friends hoped that by recourses from public business, and the tranquillity of retirement, his health would be re-established, and his life prolonged. For some time he seemed to experience the good effects of his new course of life; and he employed his hours of leisure in preparing his Treatise of *The Christian Religion*, which
which he had begun long before, and of which the first part, in an unfinished state, is contained in his works. He intended likewise to have paraphrased some of the Psalms of David; but a long and painful relapse broke all his designs, and terminated the life of this excellent person, June 17th, 1719, in the 48th year of his age. He died at Holland-House, near Kennington, leaving behind him an only daughter by the Countess of Warwick. After his decease Mr. Tickell, in pursuance to the instructions which he had received, collected and published his works in four volumes, 4to. This edition contains, besides the pieces already mentioned, the "Differtation upon Medals," for which the materials were collected in Italy, and digested at Vienna, in 1702; "The present State of the War, and the Necessity of an Augmentation considered," first published in the form of a pamphlet in 1707; "The Whig Examiner," published in 1710, of which five papers are attributed to Mr. Addison, and they are the most severe of his publications: they were written by way of reply to the "Examiner," published on the part of the Tories, and contain some harsh animadversions on Dr. Sacheverell, Mr. Prior, and others. A similar piece, intitled, "The late Trial and Conviction of Count Tarfitt," and designed to expose the Tory miniftery on the subject of the French commerce-bill, was published in 1713. The comedy of the "Drummer or Haunted House," though not noticed in this edition, was afterwards published as Mr. Addison's, by Sir Richard Steele. The following pieces have been also ascribed to Mr. Addison: viz. "Dif- fertatio de ininnioribus Romanorum Poetis," written about 1692; "A Discourse on ancient and modern Learning," preferred among the MSS. of the late Lord Somers, and printed in 1739, 8vo.; and No. 1 and 2 of "The Old Whig," pamphlets, written in defence of the peerage bill, 1719.

The character of Mr. Addison, as a critical scholar, as a statesman, as a poet, and elegant writer, and as a man of religious principle and exemplary probity and virtue, has been delineated and ably defended against the attacks of prejudice and envy by many writers; and their testimonies have been collected and duly appreciated by Dr. Kippis, in the last edition of the Biographia Britannica. The Latin poems, which were his early productions, his discourses on the Georgics, and his disertations on medals, afford ample evidence of his classical taste and erudition. As a statesman it has been alleged against him, that his invincible modesty and timidity disqualified him for conducting any political debate in parliament; that he made a mean figure in the office of secretary of state; that he was unfit for active life; and that he was very desperately removed from office to make way for a more able successor. Such are the contemptuous charges retailed by Sir John Hawkins, in his History of Muses, (vol. v. p. 315.) who adds, that Dr. Mackevede, the author of the Fable of the Peas, called him, "a parson in a tye wig." In reply to these charges it has been urged, that Mr. Addison was gradually trained up to a qualification for the several employments in which he was engaged; that he was designed for the service of the state by Lord Somers and Lord Halifax; and that he occupied in succession various departments of public business without incurring the reproach of want of ability. As to his removal from public office, the true cause of it was his declining health; and that on his own part it was purely voluntary, appears from his intimate connection with Lord Sunderland and the Lord Viscount Stanhope, who were in office, and his friendship with Mr. Craggs who succeeded him, and from the zealous support which he gave to the ministry after his resignation. The reserve and diffidence charged upon him by Dr. Mandeville, if the story be true to which the anecdote refers, might possibly arise from his disinclination to be free and intimate with a person whose principles and character he must have disliked.

As a poet, Mr. Addison was for a long time highly ex- toled; but his reputation has lately been upon the decline. He is ranked by Dr. War ton in the second class of our poetical authors, and joined with Dryden, Prior, Cowley, Waller, Garth, Fenton, Gay, Denham, and Parnell: whilst the first class comprehends Spenser, Shakespeare and Milton. Others have degraded him to a still lower rank. Mr. Gilbert Cooper says, (Letters concerning Taste, p. 54.) that he has no right to a pretension of being a good poet. Dr. Hurd (Critical Commentary and Difertations, v. iii. p. 121.) speaks of him as one who had no want of natural talents for the greater poetry; which yet were so restrained and disfigured by his constant and superfluous study of the old classics, that he was, in fact, but a very ordinary poet. Although it should be allowed that Mr. Addison did not really display, in his poetry, a highly vigorous imagination, yet there are many distinguished excellencies in his poems, which intitle him, in the opinion of very competent judges, to a higher rank than even Dr. Hurd assigns him. In this connection it may not be improper to observe, that Captain Thompson, in his edition of Mr. Andrew Marvell's Works, (vol. i. Pref. p. 19.) &c. ascribes to Marvell the two fine hymns in No. 453 and 465 of the Spectator, which hitherto have been universally, and without doubt, justly ascribed to Mr. Addison. Whilst it is not to be dismissed that criticism was not a talent, in the exercise of which he excelled, nevertheless those who question his abilities as a critic concede that his taste was truly elegant, and that he may be ranked in this department of literature with Longinus, though he links below Aristotle; and that, however defective he may be thought with regard to the philosophy of his criticisms, he determined justly from his feelings, and contributed by his critical remarks on the Georgics, on Ovid, and especially on Milton, more than any other man, to excite and propagate a good taste in the English nation. His Essay on the Pleasures of the Imagination should not be forgotten by those who dispute his critical sagacity; and the candid will recollect, that philosophical criticism had not been cultivated at the period in which he lived, and that in this respect he was far superior to his contemporaries.

Whatever difference of opinion there may have been as to the rank and celebrity to which Mr. Addison is intitled as a poet and a critic, his distinguished and almost super- eminent excellence as a prose writer has been universally allowed. Those whose province it has been to mark his casual errors and defects, have concurred in paying him a tribute of high commendation. Many testimonies of this kind might be cited from the publications of Mr. Cooper, Dr. Hurd, Dr. Young, Mr. Melmoth, Dr. Worton, Dr. Johnson, Dr. Blair, and others. Under this head the following reflections may not be unacceptable to the reader. In various parts of Mr. Addison's prose essays, says Dr. Worton, are to be found many strokes of genuine and sublime poetry; many marks of a vigorous and exuberant imagination. After all, his chief and characteristic excellence was his humour; for in humour no mortal has excelled him, except Molieres: for which he refers to the character of Sir Roger de Coverley, so original, so natural, and so inviolably preferred; and to the Drummer, that excellent and neglected comedy. Dr. Young, in his conjectures on original composition, describes his character as a writer at large; and upon a comparison of Addison with Swift and Pope, he
be remarks, that he possessed a more refined, decent, judicious, and extensive genius, than either of the latter writers. Swift, says he, is a singular wit, Pope a correct poet, Addison a great author. Addison’s crown was elective; he resigned by the public voice:

Per populas dat jura, vinagque effeclat Olympa.

Addison wrote little in verse, much in sweet, elegant Virgilian prose. His compositions are built with the finest materials, in the style of the ancients, and on truly classic ground; and though they are the delight of the present age, yet I am persuaded (continues this author) that they will receive more justice from posterity. His admirers call him an elegant writer. That elegance which shines on the surface of his compositions seems to dazzle their understanding, and renders it a little blind to the depth of sentiment which lies beneath: thus (hard fate!) he loses reputation with them, by doubling his title to it. On subjects the most interesting and important, no author of his age has written with greater, I had almost said, with equal weight: and they who commend him for his elegance, pay him such a sort of compliment, as they would pay to Lucrèce, if they should commend her only for her beauty. Young’s Works, vol. v. p. 130, &c.

Truth and beauty of imagery (says Mr. Melmoth) is the characteristic distinction of Mr. Addison; and the principal point of eminence which raises his style above that of every author in any language that has fallen within my notice. He is everywhere highly figurative; yet, at the same time, he is the most easy and perip Tacus writer I have ever perused. His images are selected with the utmost delicacy and judgment, from the most natural and familiar appearances. One is particularly mentioned, taken out of a thousand that might be named, which appears to me, says Mr. Melmoth, the most and most expressive that ever language conveyed. It occurs in one of the imitable papers upon Paradise Lost, where Milton represents the sun in an eclipse; and at the same time a bright cloud in the western regions of the heavens, descending with a band of angels. The whole theatre of nature, says Mr. Addison, is darkened, that this glorious machine may appear in all its lustre and magnificence. After other expressions of high commendation, Mr. Melmoth closes:—“In a word, one may justly apply to him what Plato, in his allegorical language, says of Aristophanes, that the grace having searched all the world for a temple, wherein they might for ever dwell, settled at last in the breast of Mr. Addison.” Fitz hologhorne’s Letters, Let. xxv. p. 112, &c. Let. xxxix. p. 137.

Dr. Johnson, in delineating the literary character of Mr. Addison, observes with Tickell, that he employed wit on the side of virtue and religion. He not only made the proper use of wit himself, but taught it to others; and from his time it has been generally subordinated to the cause of reason and truth. He has divested the prejudice that had long connected gaiety with vice, and calumni of manners with lasciviousness. He has reflored virtue to its dignity, and taught innocence not to be ashamed. This is an elevation of literary character above all Greek, above all Roman fame.” No greater felicity can genius attain than that of having purified intellectual pleasure, separated mirth from indecency, and wit from licentiousness; of having taught a succession of writers to bring elegance and gaiety to the aid of good sense; and, to use expressions yet more awful, of having “turned many to righteousness.” As a deferrier of life and manners, he must be allowed to stand perhaps the first of the first rank. His humour, which as Steele observes, is peculiar to himself, is so happily diffused as to give the grace of novelty to domestic scenes and daily occurrences. He never “outsteps the model of nature,” nor raises imprecation or wonder by the violation of truth. His figures neither divert by distorsion, nor amaze by aggravation. He copies life with so much fidelity, that he can hardly be said to invent; yet his exhibitions have an air so much original, that it is difficult to suppose them not merely the product of imagination. As a teacher of wisdom he may be confidently followed. His religion has nothing in it enthusiastic or superstitious: he appears neither weakly credulous, nor wantonly sceptical: his morality is neither dangerously lax nor impracticably rigid. All the enchantment of fancy, and all the cogency of argument, are employed to recommend to the reader his real interest, the care of pleasing the author of his being. Truth is shown sometimes as the phantom of a vision, sometimes appears half-veiled in an allegory; sometimes attracts regard in the robes of fancy, and sometimes slips forth in the confidence of reason: the wears a thousand dresses, and in all is pleasing. Johnson’s Poets.

Among ourselves, says an anonymous writer, in the 26th number of the World, no writer has made so happy and judicious a mixture of plain and figurative terms as Addison, who was the first that banished from the English, as Boileau from the French, every species of bad eloquence and false wit, and opened the gates of the temple of tale to his fellow-citizens.

Dr. Blair observes, that of the highest, most correct, and ornamental degree of the amble style, Mr. Addison is, beyond doubt, the most perfect example; and therefore, though not without some faults, he is, on the whole, the fairest model for imitation, and the freest from considerable defects, which the language affords. Peripatetic and pure he is in the highest degree: his precision, indeed, is not very great, yet nearly as great as the subjects which he treats of require: the composition of his sentences, easy, agreeable, and commonly very musical, carrying a character of smoothness more than of strength. In figurative language he is rich, particularly in similes and metaphors, which are so employed as to render his style splendid, without being gaudy. There is not the least affectation in his manner; we see no marks of labour, nothing forced or constrained; but great elegance joined with great ease and simplicity. He is, in particular, distinguished by a character of modesty and of politeness, which appear in all his writings. No author has a more popular and instructive manner; and the great regard which he every where shews for virtue and religion recommend him highly. If he fails in any thing, it is in want of strength and precision, which renders his manner, though perfectly suited to such essays as he writes in the Spectator, not altogether a proper model for any of the higher or more elaborate kinds of composition. Though the public have ever done much justice to his merit, yet the nature of his merit has not always been seen in its true light: for, though his poetry be elegant, he certainly bears a higher rank among the prose writers, than he is entitled to among the poets; and, in prose, his humour is of a much higher and more original strain than his philosophy. The character of his Roger de Coverley discovers more genius than the critique on Milton. Blair’s Lectures, vol. ii. p. 41, &c.

Mr. Addison’s character, as a man of probity and religious virtue, stands in high estimation. His attachment to his principles and his friends was invariable, and afforded the most convincing evidence, in times of political discord, of his inflexible integrity. It was, nevertheless, blended with
with an amiable liberality and candour. Such, indeed, was his general popularity, that Dr. Swift says of him on a particular occasion, "Mr. Addison's election has passed easily and unadjudged; and, I believe, if he had a mind to be chosen king, he would hardly be refused." The friendship that subsisted between these two gentlemen continued through life, without interruption, notwithstanding the difference in their political principles and connections: and so nobly did Mr. Addison act on an occasion, in which he was defended by Lord Sunderland not to converse with some people in Ireland that were not agreeable to him, that whilst he professed his great obligation to his Majesty for the honour intended him, (of being secretary to the Lord Lieutenant,) he declared, at the same time, he could not comply with his excellency's request; as he would not sacrifice his friendship for Dr. Swift, to be made chief governor of that kingdom. Suppl. to Swift's works, vol. ii. p. 410. His character for probity has not, however, escaped calumny and reproach. Dr. Johnson relates an anecdote, which every admirer of the distinguished merit of Mr. Addison will be very reluctant to believe, at least without some authority which Dr. Johnson has not produced, and especially in opposition to the evidence that has been alleged of its falsehood. Steele is said to have borrowed 100l. in a time of preying exigence of his friend Addison, probably without much purpose of repayment: but Addison, being impatient of delay, reclaimed the loan by an execution. The following anecdote, which is of a very different kind, was told by the late Dr. Birch. Mr. Addison and Mr. Temple Stanyan were very intimate, and were accused to dispute each other's opinions. Mr. Stanyan, however, was reduced to the necessity of borrowing 500l. of Mr. Addison; the consequence of which was reserve and diffidence, and an apparent acquiescence in the sentiments of his creditor on the part of Stanyan. A dispute occurred on a topic, with regard to which the latter had always been used to oppose the former; but on this occasion Mr. Stanyan was silent and acquiescing, which conduct hurt Mr. Addison so much, that he said to his friend, "Either contradict me, or pay me the money." It appears also by some particulars recited concerning Mr. Addison, by a late spirited writer, (Mr. Tyers) that upon his return to England, after his travels, he discharged the old debt contracted at Oxford, with ample interest; and that he refin'd a gratification of a 300l. bank note, and afterwards of a diamond ring of the same value, from a Major Dunbar, whom he had endeavoured to serve in Ireland by his interest with Lord Sunderland; and, it is probably on this occasion, that he writes in a letter; "Believe me, Sir, when I assure you I never did, nor ever will, on any pretence whatsoever, take more than the stated and customary fees of my office. I might keep the contrary practice concealed from the world, were I capable of it; but I could not from myself; and I hope I shall always fear the reproaches of my own heart more than those of all mankind." We are informed by the writer just mentioned, that having received encouragement from a married lady, of whom he had been formerly enamoured, he had the integrity to retract the temptation. Addison has been charged with manifesting a great degree of jealousy, envy, and malevolence in his conduct towards Mr. Pope. Dr. Wor- ton and Cibber seem to have given credit to this charge; and the accusation has been directly and circumstantially produced by Mr. Ruffhead in his life of Pope, p. 184—193. The late Judge Blackstone took great pains to investigate the grounds of it, and to evince its falsity. Besides the jealousy of Mr. Pope's superior talents, which constitutes part of the charge, Mr. Addison is accused of permitting Mr. Tickell, who was his dependent, to publish a translation of the first book of the Iliad, which some say was the juvenile work of Addison, and which others affirm was Tickell's, reviled by him, just at the time when the first volume of Mr. Pope's work was delivered to his subletters. After a very elaborate investigation of all this business, published in the last edition of the Biog. Brit., the learned Judge closes with this paragraph: "As there are so many inconsistencies in the story itself, which never found its way into print till near sixty years after it is said to have happened, it will be no breach of charity to suppose, that the whole of the story was founded on some misapprehension in either Mr. Pope or the Earl (Warwick); and unless better proof can be given, we shall readily acquit Mr. Addison of this, the most odious part of the charge." At the close of his life, and with the near views of his dissolution, he wrote for the young earl of Warwick, and also for Mr. Gay. He told the latter that he had injured his; but if he recovered, he would recommend him. Mr. Gay was ignorant of the circumstance to which he adverted, but supposed that some preference had been designed for him, which Mr. Addison prevented its obtaining.

Of his interview with the young Earl, Dr. Young has given the following account. After a long and many, but vain struggle with his dilatoriness, he dismissed his physicians, and with them all hopes of life. But with all his hopes of life he dismissed not his concern for the living, but sent for a youth, nearly related, and finely accomplished, but not above being the better for good impressions from a dying friend. He came; but life now lingering in the socket, the dying friend was silent: after a decent and proper pause, the youth said, "Dear Sir! you sent for me; I believe, and hope, that you have some commands; I shall hold them most sacred." May dillent ages not only hear, but feel, the reply! forcibly grasping the youth's hand, he softly said, "See in what peace a Christian can die." He spoke with difficulty, and soon expired.

Mr. Addison, says his Biographer, notwithstanding the several things which have been advanced to lessen him in the public opinion, will always be held in the highest estimation, as an amiable and excellent man in private life, as one of the brightest ornaments of, perhaps, the finest age of English literature; as one who greatly contributed to the spreading of good sense and good taste in the nation; as one of our most elegant, and graceful writers; as having been singularly beautiful in his allegorical papers, and admirable for the vein of humour which runs through many of his compositions. Biog. Brit.

Addison County, in Geography, a county of Vermont in America, on the south side of Lake Champlain, and divided nearly into equal parts by Otter Creek. It has Chittenden county on the north, and Rutland county on the south; and contains 64,499 inhabitants, dispersed in twenty-one townships. Its dimensions are about thirty miles by twenty-feven, and a range of the Green Mountains passes through it. Its chief town is Middlebury.

Addison is also a town of the above county, lying on the lake Champlain, separated from New Haven, on the east by Otter Creek. The Snake Mountains are on the south-east. This town contains 901 inhabitants.

Additament, in a general sense, denotes a thing added to another. It signifies the same as Epitomized.

Additament, in Physic and Chemistry, are things super-added to the ordinary ingredients of any composition.

Addition, the act of joining one thing to another, or of augmenting a thing, by the accession of others.

Addition, in Arithmetick, is the first of the four fundamental rules, or operations, of that art.

Addition consists in finding the amount of several numbers,
Addition is the invention of a number, from two or more homogeneous ones given, which is equal to the given numbers taken jointly, or together.

The number thus found is called the sum, or aggregate of the numbers given.

The character of addition is +, which we usually express by plus. Thus 3 + 4 denotes the sum of 3 and 4; and is read 3 plus 4.

The addition of simple numbers is easy. Thus it is readily perceived that 7 and 9, or 7 + 9, make 16; and 11 + 15, make 26.

In longer, or compounded numbers, the business is performed by writing the given numbers in a row downwards; homogeneous under homogeneous, i.e. units under units, tens under tens, &c. and accurately collecting the sums of the respective columns.

To do this, we begin at the bottom of the outmost row or column to the right; and if the amount of this column be ten, or some number of tens, we flit down only the overplus, and carry one for each ten to the next column.

Suppose, e.g. the numbers 1357 and 172 were given to be added: write either of them v. g. 172, under the other 1357; so that the units of the one, viz. 2, stand under the units of the other, viz. 7; and the other 1357 numbers of the one, under the correspondent ones of 172 the other, viz. the place of tens under tens, as 7 under 5; and that of hundreds, viz. 1, under the 1529 place of hundreds of the other, 3. Then, beginning, lay 2 and 7 make 9; which write underneath; also 7 and 5 make 12; the last of which two numbers, viz. 2, is to be written, and the other one reserved in your mind to be added to the next row, 1 and 3: then lay 1 and 1 make 2, which added to 3 make 5; this written underneath, and there will remain only 1, the first figure of the upper row of numbers, which also must be written underneath; and thus you have the whole sum, viz. 1529. The same method will extend to any number of sums, which are required to be united in one.

When a great number of separate sums, or numbers, are to be added, it is more easy to separate them into two or more parcels, which may be added separately, and then their sums added together for the total amount; and thus, by dividing the numbers into parcels in different ways, the truth of the addition may be proved.

Another method of proving addition was suggested by Dr. Wallis in his arithmetic, published in 1657, by calling out the nines. Thus, add the figures of each line of numbers together separately, and call out always 9 from the sums as they arise, adding the overplus to the next figure, and setting down at the end of each line the excess above the nine or nines. Pursue the same processes with the sum total, and the former excesses of nine, and the last excesses will be equal when the work is right. The former examples may be thus proved:

| 1357 | 7 Thus also: | 350700 | 172 | 1 | 31806500 |
| 1529 | 8 | | 339087 | 3 | 46011 |
| | | | | | 32935 |
| | | | | | 32545242 |

Addition of numbers of different denominations, for instance, of pounds, shillings, and pence, or yards, feet, and inches, is performed by adding or summing up each denomination by itself, always beginning with the lowest; and if, after the addition, there be enough to make one of the next higher denomination, for instance, pence enough to make one or more shillings, or inches to make one or more feet, they must be added to the figures of that denomination, that is, to the shillings or feet, only referring the odd remaining pence or inches to be put down in the place of pence or inches. And the same rule is to be observed of shillings with regard to pounds; and of feet with regard to yards.

As in the following examples:

| 120 | 15 | 9 | 271 | 10 | 3 | 15 | 12 | 11 |
| 65 | 12 | 5 | 35 | 2 | 7 | 4 | 10 | 0 |
| 9 | 8 | 0 | 14 | 2 | 5 | 12 | 0 | 13 |
| 195 | 16 | 2 | 326 | 0 | 3 | 15 | 15 | 9 |

Sum 33 6 2

Addition of Decimals. See DECIMAL.
Addition of Vulgar Fractions. See FRACTION.
Addition of Logarithms. See LOGARITHM.
Addition of Ratios is used by some authors in the same sense with COMPOSITION OF RATIOS, which see.

Addition, in Algebra, or the addition of indeterminate quantities, expressed by letters of the alphabet, is performed by connecting the quantities to be added, by their proper signs; and also by uniting into one sum, those that can be so united; i.e. similar quantities, by adding their co-efficients together if they have the same signs, or subtracting those which have different signs. So that addition comprehends three cases.

Case I. To add quantities which are like, with like signs: add all the co-efficients together, and to their sum annex the common quantities, and prefix the common sign. Thus, 7a + 9a = 16a. And 11b + 13bc = 26bc. Also 3a + 5b = 8a/c + 2b/c + 7bc/c + 36a + 4b/c + 12c + 36c = 5ac + 3ed + 3a/c - 2c + 2d/c - 5c/2.

And 6a + 9b - 3e - 4f + 5c - 2e - 3f

10a + 14b + 5c - 7f

Case II. To add quantities which are like with unlike signs: add all the affirmative or positive co-efficients together into one sum, and all the negative ones into another; then subtract the less of these sums from the greater, and to the difference prefix the sign of the greater, and annex the common quantity. Thus, -2 and -3 make -5; 4a/b and -11a/b make -15a/b; -a/b and -b/a make -a/b + a/b. Also,

3 - 2 = 1; 9a - 7a = 2a; 11ax/b - 3ax/b = 4ax/b; and -a/b + a/b + b/ac = b/ac - a/b + ac; and, 2 - 3 = 1; 11ax/b + 4a/b = -7ax/b; and 2 + 4ac - 7ac = -5ac. Again, -3a + 7a + 8a - a = 6a + 15a + 9a; and -5xy = 3xy + 8xy + 7xy = -5xy + 15xy + 7xy; and 6ac + 2ax = 5ax + 10ax + 11ax + 12ax + 12ax = 12ax: And 8a + 7b - 8e - 7 = -6a - 3b + 4c + 4.
Cafe III. To add quantities which are unlike, with unlike signs: collect all the like quantities together by the last rule, and set down those that are unlike one another, with their proper signs. Thus, \(5x^2 + 4ax - xy - 4ax = 5x^2 - xy - 4\); and \(-6y/x + 5/x - 5/x + 10/ax = 12x^2 - 11x - 14\). And \(9ab - 6\sqrt{ac} + 3\sqrt{d} - 4x^2 + 7ab + 4/\sqrt{ac} - 2bc + 7 - 4 = 2ab - 2\sqrt{ac} + bc - a + b\).

**Addition of irrational quantities, orfinite.** See **Surd**.

**Addition, in Law,** is that name, or title, which is given to a man over and above his proper name, and surname; to shew of what estate, degree, or mystery he is; and of what town, village, or country.

**Additions of Value, or quality,** are yeoman, gentleman, esquire, and such like.

**Additions of Degree,** are those we call names of dignity; as knight, lord, earl, marquis, and duke.

**Additions of Mystery,** are such as writer, painter, mason, and the like. See **Chorography**.

**Additions of Place,** are, of Thorn, of Dale, of Woodstock. Where a man hath his household in two places, he shall be said to dwell in both; so that his addition in either may suffice. Knows was anciently a regular addition.

By flat, 1 Hen. V. cap. 5, it was ordained, that in all original writs of actions personal, appeals, and indictments, upon which process of outlawry may be awarded, such addition should be made to the name of the defendant, to shew his estate, degree, or mystery, and the place where he dwells; and that the writs, not having such additions, shall abate, if the defendant take exception thereto; but not by the office of the court. The reason of this ordinance was, to prevent any clandestine or mistaken outlawry, by reducing to a specific certainty the person who is the object of its process.

If one be of the degree of a duke, earl, &c. he shall have the addition of the most worthy dignity. 2 Infr. 669.

Such titles, however, are not properly additions, but names of dignity. The title of knight or baronet, is part of the party’s name, and ought to be rightly used; but the titles of esquire, gentleman, or yeoman, &c. being no part of the name, but additions, as people please to call them, may be used, or not used, or if varied, is not material. 1 Bll. 34.

An Earl of Ireland is not an addition of honour here in England; but such a person must be written by his Christian and surname, with the addition of esquire only; and the sons of English noblemen, although they have given them titles of nobility, in respect to their families, if you use them, they must be named by their Christian and surname, with the addition of esquire; as—such-a-one, esquire, commonly called lord A, &c. 2 Infr. 596. 666.

No addition is necessary where process of outlawry doth not lie. 1 Salk. 5. If a city be a county of itself, wherein are several parishes, addition thereof, as d. London, is sufficient; but addition of a parish not in a city, must mention the county, or it will not be good. 1 Danw. 237.

**Addition, in Measure,** is a dot placed on the right side of a note, to signify, that the time of the sound of such note is to be lengthened half as much more, as it would otherwise be.

A note of addition amounts to the fame with what is by some old English authors called prick of perfection.

Thus a semibreve, when marked with a dot, is to be as long as three minimis; the minim, with the like dot, to be as long as three crotches; the crotchet, as three quartavers, &c.

See **Character**.

**Additions, in Heraldry,** denote a kind of bearings, in coats of arms, wherein are placed rewards, or additional marks of honour, in which sense, additions stand opposed to **abatements,** or diminutions. See **Differnece.**

**Additions resemble, but differ from ordinarions.** To the effects of additions belong a bordure, quarter, canton, gyron, pyle, flank, flanche, voider, and an inequitouch gules, called also an effacement of presence. On any of these may an addition of honour be placed, according to the pleasure of the prince, or the fancy of the herald; which reward devolves to none of the family, except the person’s own direct line. In this manner the arms of a kingdom have been sometimes given, by way of addition, to a private subject. The abolition in which these additions are held, has declined since the college has granted them to persons who apply, although neither they nor any of their ancestors have had any particular claim on marks of the royal favour.

**Additions, in Distilling,** a name given to such things as are added to the wort, or liquor, while in a state of fermentation, in order to improve the vivacity of the spirit, procure a larger quantity of it, or give it a particular flavour.

All things of whatever kind, thus added in the time of fermentation, are called by those of the business, who speak most intelligently, additions; but many confound them with things of a very different nature, under the name of ferments.

The additions used in the distillery may be reduced to four general heads. 1. **Sols.** 2. **Acids.** 3. **Aromatics,** and 4. **Gls.** A little tartar, nitre, or common salt finely powdered, may be added to the liquor while fermenting, especially in the beginning of the operation; or in thin’d head, a little of the vegetable, or finer mineral acids, may be dropped in at different times, when found necessary. These are of great use, especially in the fermenting solutions of treacle, honey, and the like sweet and rich vegetable juices, which either wholly want an acid in themselves, or have it in too small a proportion, or have been robbed or distilled of it.

The proper acids for this purpose are, the juice of Seville oranges, or lemons, or the spirit of sulphur, or Glaufer’s spirit of salt, or, what is greatly preferable to all these, a particular aqueous solution of tartar, a feucedanum for which may be tamarinds, or the rabs of some very acid fruits, or the acidum salinum vini. On this foundation stands that ingenious practice of using a suitable proportion of the still bottoms, or the remaining wort, in the turbulent brewing.

After the same manner, a very considerable quantity of any essential vegetable oil, may by proper management be converted into a surprisingly large quantity of inflammable spirit; but great care in this case must be had not to drop it in too fast, nor too much at a time; this might damp the fermentation; and, indeed, the adding a large quantity at once, in the common way of stopping the fermentation at any point required.

The best method of all, of introducing the oil, so as to avoid all inconvenience, is to reduce it first to an elaeafi-charum, by grinding it in a mortar, with a due quantity of fine sugar in powder. The oil thus added, with its particles diffused, and in form of powder, will readily mix with the liquor, and immediately ferment with it.

A large proportion of rectified spirit, or of any other spirit, may, by prudent management, be also introduced into the fermenting liquor; and this will always come back with a large addition to the quantity of spirit, that would otherwise have arisen from the distillation. Shaw. See **Combinatory Distillation.**

**ADDITION,** denotes something to be added to another.
Geometricians speak of additive ratios; astronomers of additive equations, &c.

Additive ratio is used, by some writers, for those terms which are disposed to addition, that is, opposed to subtraction, i.e. to division. Phil. Trans. N. 257.

Suppose the line \( ac \) divided in the points \( b \) and \( x \),

\[
\frac{a}{b} = \frac{c}{x}
\]

the ratio between \( ab \) and \( bx \) is additive; because the terms \( ab \) and \( bx \) compose the whole \( ax \). But the ratio between \( ax \) and \( bx \) is subtractive, because \( ax \) and \( bx \) differ by the line \( ab \).

Additive equations, in Astronomy, those which are to be added to the sun's mean anomaly, in order to find the true one. See Equation.

ADDIX, in Antiquity, a measure of capacity in Asia and Egypt. See Piloc.

ADDIXIIT, or ADDIEXRUNT, was the word by which they expressed the favourable augur of the sacred birds. For an unfavourable augur, a negative was annexed.

ADDOUBORS, in Law. See REDDOBRS.

ADDRESS, in a general sense, is used for skill and good management, and of late has been adopted from the French, and is used in genteel phrase, and also in Commerce, as synonymous with direction or a person or place. The word is formed of the French verb addresser, to direct anything to a person.

Address, means also a discourse presented to the king, in the name of a considerable body of his people; to express or notify their sentiments of joy, satisfaction, or the like, on some extraordinary occasion.

We say, the lords address, the commons address. Address were first set on foot under the administration of Oliver Cromwell. - At Paris, their office of intelligence was commonly called bureau d'adresser.

Address, in Rhetoric. See APOSTROPE.

ADDUCENT Muscles, or Adductors, in Anatomy, are those which bring forward, close, or draw together, the parts of the body whereof they are annexed.

The word is compounded of add, to; and ducere, to draw, or bring.

Adducents, or adductors, stand opposed to abducent, or abductors.

ADDUCTION, in Anatomy, the motion or action of the adductus muscles, or adductors.

ADDUCTOR brevis femoris. See TRICEPS.

ADDUCTOR longus femoris. See TRICEPS.

ADDUCTOR magnus femoris. See TRICEPS.

ADDUCTOR Oculi arises from the inner side of the formen opticus, between the obliquus superior and depressor, and is inserted into the globe of the eye opposite to the inner angle. It is from its situation the shortest of the four straight muscles of the eye. It will turn the eye towards the nose.

ADDUCTOR Ophi metacarpis minimi digitii manus, metacarpis of Winslow, arises from the os metacarpale, and the ligament of the wrist, and is inserted in a tendinous form, into the inner side and front of the metacarpal bone of the little finger. It will bring the metacarpal bone of this finger towards the reft, and will bend it.

ADDUCTOR minimi digitii pedis, arises from the inside of the metatarsal bone of the little toe, and is inserted into the inside of the root of the first joint of the little toe. It will bend the first joint of the little toe, and draw it inwards.

ADDUCTOR pollicis manus, has a broad fleshy origin from the whole length of the metacarpal bone of the middle finger: its fibres are collected together to be inserted tendinous into the inner part of the root of the first bone of the thumb. It will pull the thumb towards the fingers.

ADDUCTOR pollicis pedis, the anterior of Winslow, arises by a long tendon from the os calcis, from the os cuboideum, from the os cuneiforme externum, and from the metatarsal bone of the second toe. It is inserted into the external semilunar bone of the great toe. Its use is to bring the great toe towards the other toes.

ADDUCTOR pollicis profundus, a name given by Santorini to a muscle, which he also calls levator profutus, and which Winslow calls profutus profundus. Albinus, from its office, had very properly called it adductor profundus.

ADDUS, in Ancient Geography, a town of Palestine in the tribe of Judah.

ADDYME, a town of Africa, placed by Ptolemy in Mauritania Caesariensis.

ADEA, in Geography, a district of Abyssinia, called also HADEA.

ADEB, in Commerce, the name of a large Egyptian weight, used principally for rice, and consisting of 210 okes, each of three rotolas, a weight of about two drams less than the English pound. But this is no certain weight: for at Rosetta the adb is only 152 okes. Pococke, Egypt.

ADEBA, in Ancient Geography, a town of Hispamia Tarraconensis, placed by Ptolemy among the Illyrenes.

ADEBAREA, in Geography, a desert, hilly district of Abyssinia, called the country of the Slaves, as being in the vicinity of the Shangali.

ADEDUS, in Ancient Geography, a town of Arabia Felix, on the borders of the Red Sea, placed by Ptolemy in long. 72° 15'; and lat. 17° 10'; among the Cambisii.

ADEGEN, in Geography, a town of Flanders, five leagues east of Bruges.

ADEL, a kingdom on the eastern coast of Africa, so called from its metropolis, and ZEILA from an eminent feaport, situated to the south of the Red Sea, the Straits of Babylons and Cape Guardafui, and has the Indian ocean on the east, on the south the kingdoms of Magdaxo and Adca; and on the west the country of the Gallas, or the kingdoms of Dancaal, Cawaro, Bali, Fatiger, and other districts of Abyssinia. The exact extent of this kingdom is not known; but it is supposed from east to west to be about 160 leagues, from north to south about 72 leagues. The interior part of Adel is very imperfectly described. The principal places in it are Adel, the capital and royal residence, situatet in the inland country, near the river Hawaff, about 300 miles south of Mogho, lat. 8° 5'; E. long. 44° 20'; Affin, a small town on the eastern coast, which furnishes provisions for mariners, but has no haven; Cape Guardafui to the north of Affin; Meta on the northern coast near the river Scial, Barbora and Zeila. Some geographers have mentioned other cities in this kingdom, viz. Araf, Bali, Doara, Comissara, Navorata, Socel and Aulfaguedula, situate on a high hill in the centre of the kingdom. The whole coast to the south-east is desert. This kingdom is said to have been founded by a prince of abyssinia, called Salatru, who, escaping from the prison in which the princes of the blood are confined in that country, took refuge in the province of Adel, and marrying the daughter of the king of Zeila, established himself in the possession of these united kingdoms. Of all the enemies, with whom the Abyssinians have had occasion to contend, the kings of Adel have been the most powerful and inveterate; and, indeed, the history of this kingdom consists prinipally of details of alternate defeats and victories. The Aeliaians being Mohammedans, and the Abyssinians Christians, a mutual animosity has subsisted between them; and the rancour has increased
increased in consequence of the succour given to the latter by the Portuguese, and the alarm occasioned by their submission to the authority of the Roman see. At length, however, the Portuguese were totally expelled, and the kingdom of Adel became tributary to the Grand Signior. The kings of this country have been for a long time in high favour at the Porte, and dignified with the title of Saints, on account of their singular zeal, and frequent wars against the Christians. Nevertheless the Sultans have contrived to strip them of their most considerable maritime towns on the Red Sea; so that they have now no port left, except that of Zeila, the rest being all in the hands of the Turks. By these means the kings of Adel are precluded from maintaining any intercourse with Europe.

The country, though it has seldom any rain, is so well watered by rivers and canals, that it is very fertile and productive. It has plenty of wheat, barley, and millet; and a great variety of sheep, cows and other cattle. Some of the sheep have large tails, which weigh between 20 and 30 pounds. But the chief traffic of the inhabitants consists of gold dust, elephant’s teeth, frankincense and negro- slaves, which they procure from Abyssinia with which they are almost always at war, and convey to the port of Zeila, where they find purchasers from Arabia, Cambaya, and other parts.

The Adelites, called Gilbertis, are a stout and warlike people, and fight with surprising intrepidity against the Abyssinians, partly from zeal for religion, and partly with the hope of plunder: and they are furnished by the Turks and Arabs with a variety of fire-arms. Their complexion, particularly on the northern coast, is of a tawny brown, and towards the south it is of a more deep black. Their dress chiefly consists of a piece of cotton, which covers them from the girdle to the knee, the rest of the body being naked; but the king and nobles wear a kind of loose garment, that covers the whole body, and a cap over the head. All, and especially the women, are fond of adorning their necks, arms, wrists, and ankles with bracelets of glass, amber, and other similar trinkets.

ADELARD, or Athelward, in Biography, a beneficent monk of Bath, flourished about the year 1130, and for the sake of mathematical knowledge, travelled into France, Spain, Germany, Italy, Egypt and Arabia, and is said to have settled at Paris, where he acquired reputation as a teacher of medicine. He translated Euclid, among other Greek writers, out of Arabic into Latin; and also an Arabic work, entitled “Erichentarim,” upon the seven planets. He wrote a treatise on the seven liberal arts, comprehending, according to the language of the times, the trivium and quadrivium. He is also said to have written many books of physic and medicine, which are lost. Wallis, in his Algebra (p. 6) mentions the prefaces to two MS. books of Travels; one or both of which had noticed the travels of Athelward Batheus, which had been cited by Volius, who says that he was learned in all the sciences of his time; but these have since been cut out of the books in Corpus Christi and Trinity colleges, Oxford, and carried away—a species of inxensy, which, in the Republic of Letters, deserves to be treated as a capital offence.

ADELARD. See Adalard.

ADELBERT, in Geography, a town of Germany, in the duchy of Wurttemberg; two leagues south-east from Schwarmberg. See Adelsberg.

ADELBOLD, in Biography, a monk of Louviers in the diocese of Liege, and afterwards bishop of Utrect, wrote the life of his emperor Henry II. surnamed Claudius, with whom he was a favourite. He was made bishop of Utrecth in 1089, and died 1027.
towns of Franconia; one in the bishopric of Bamberg, and the other in the marquisate of Anspach.

ADEPTION, in the Civil Law, the revocation of a grant, donation, or the like. The ademption of a legacy may be either express, as when the testator declares in form, that he revokes what he had bequeathed; or tacit, as when he only revokes it indirectly or implicitly. Thus, if A. by will gives his daughter M. 1000l., to be paid after his debts, besides a share out of the dividend of his estate; and afterwards on her marriage, an agreement be made for what she should have out of A's estate, that it should be only 100l., which should be in full of what was intended out of it; this agreement is an ademption of the legacy.

ADEN, a gland. See GLAND.

ADEN, in Geography, a celebrated mart, giving name to a country of which it is the capital, situated at the most southern extremity of Arabia Felix upon the Indian ocean, near the coasts of Babelmandel. According to the Arabs, its founder was Aden the son of Saba and grandson of Abraham. Some suppose that the etymology of the name is the same with that of Eden, and that it was so called from the delightful country in which it was situated. It stands at the foot of several high mountains which surround it almost on all sides. The Arabs have erected forts on the summits of these mountains; and a fine aqueduct conveys the water from thence into a large reservoir or canal, built about three-quarters of a mile from the city, which supplies the inhabitants. Gallus supposes, that Aden is the Arabic Emerprium of Polemy; and it is without doubt the Adamus of Uranus, mentioned by Stephanus, vol. i. p. 24.

The situation of the harbour of Aden, which opened an easy communication with Egypt, Ethiopia, India and Persia, had rendered it for many ages one of the most flourishing factories in Asia. Fifteen years after it had repulsed the great Albuquerque, who attempted to demolish it in 1513, it submitted to the Turks, under Soliman II. in 1559, who did not long remain masters of it. The king of Yemen, who possessed the only district of Arabia that merited the appellation of happy, drove them thence and removed the trade to Mocha, which till this circumstance occurred, was only a village. N. lat. 12° 40', E. long. 46° 13'.

ADEN, is also the name of a mountain in the kingdom of Fez.

ADEANTHERA, formed of adenos, glandulares, and -thera, an anther, bollard, flower-tube, in Botany, a genus of the decandria monogyna class and order, of the natural order of lomantaces, and leguminosae of Jussieu; the characters of which are these: the calyx is a one-leafed, five-toothed, very small perianthus; the corolla is five-petalled and bell-shaped, the petals lanceolate, filiform, convex inwards and concave underneath; the stamens are fertile filaments, erect and somewhat shorter than the corolla; the anthers are roundish, incumbent, bearing a globule gland at the outer tip; the pistilium is an oblong gomus, gibbous downwards, style subulate and as long as the stamens, the stigma limpid; the pericarpium is a long compressed membranaceous legume, and the seeds are very numerous, roundish and remote. There are three species, viz. A. paramina, or pointenayi, with leaves smooth on both sides, which is one of the largest trees in the East Indies. Its duration is 200 years, and its timber is much used on account of its solidity; the powder of the leaves is used in their ceremonies; the seeds are eaten and are also valued as weights, being each of them four grains; and beaten with water and borax, they form a cement, and the bruised leaves yield a liquor which is esteemed good against pains in the loins. This species must be milled on a hot-bed from seeds, and it must afterwards be placed in the bark-flour. It has not yet flowered in England. Mr. Miller mentions a variety with scarlet seeds received from India, which is of a very flow growth. 2. A. falcata, with leaves tomentose underneath, is a native of the East Indies. 3. A. scandens is a native of Mallicollo, an island in the South-seas. These two species are little known with us; having never been cultivated in England.

ADEANTSHERA, is also a species of ANTHERICUM.

ADENA, in Geography, a town of Africa, in the empire of Morocco, and province of Temiens.

ADENBERG, or ALDENBERG, a town of Welfphalia, in the duchy of Berg, subject to the elector Palatine; 12 miles north-call of Cologne. E. long. 7° 16'. N. lat. 51° 2'.

ADENIA, in Botany, a genus of the decandria monogyna class and order; the characters of which are, that the corolla has five petals; the calyx is very long, and divided into five portions; the nectarium is composed of five linear scales. There is one species, viz. A. sectata, with palmed leaves and spotted flowers. This species is mentioned by Forlak in his Flor. Egypt. And he says, that the powder of the young branches mixed in any kind of liquor, is a strong poison; and that the capparis spinosa is an antidote to it. The tree grows in Arabia.

ADENOGRAPHY, compounded of adenos, glindus, and -graphy. I desire to describe, that branch of Anatomy which describes the glands, and the glandular parts of the body.

ADENOLOGY, the name with some others call adenoscopy, or the adenosological part of Anatomy.

ADENOIDEIS, q. d. glandulatus, an epithet applied to the prostate.

ADENOS, a kind of cotton, otherwise called marine cotton. It comes from Aleppo by the way of Marfeilles, where it pays 20 per cent. duty, according to the tariff of the year 1766. Its valuation, by the same tariff, is of 76 lives 16 shillings.

ADENOSUS abscessus, in Surgery, a crude hard tubercle, difficult of dissection, and resembling the appearance of a gland. See Abscess.

ADENSEN, in Geography, a parochial village in the bailiwick of Calenberg in Hanover, which formerly belonged to the lords of Adenys, whose male issue became extinct in 1331, and whose titles were engaged by marriage to the counts of Hallermund.

ADEONA, in Mythology, a goddes invoked by the Romans when they set out upon a journey. This (says Mr. Bryant) is the same with Libuna or Adions, formed of ad and Ionab, q. d. regia columba, referred to in the Hebrew word for mercanarius (Dent. xvii. 11.), and probably the Dionysus of the Greeks. Mythol. vol. ii. p. 313.

ADEPHAGIA, the goddes of glutony, as the name imports, to whom the Sicilians paid religious worship. In the temple erected to her, her flatus was placed next to that of Ceres.

ADEPHAGUS, or voration, an appellation of Hercules.

ADEPS, in Anatomy, the fat found in the abdomen. The term also denotes more generally any kind of fat.

ADEPTS, from the verb adpetti, to obtain, a denomination given to the proficient in Alchemy, by which those chemists chose formerly to distinguish themselves who were engaged in experiments on the transmutation of metals, and researches after the universal medicine. The appellation is derived, according to Paracelsus (de alchimia magna lib. i.), from the Latin term philosophical adeptus, philosophy acquired by contemplation, in opposition to that which
ADE

which was taught and transmitted in the schools, philosophia
elementaris. Such is the nature, says Paracelsus, of this
higher-philosophy, that it does not originate from man but
from heaven; and one mortal can no more communicate it
to another, than the paper on which letters are traced, can
of itself declare their meaning. Hence the enthusiasts who
gave themselves up to this kind of study, intitled them-
elves philosophi adepti, as they spoke of others by the name of
philosophi terreni. Van Helmont also says, "vocantur bi
adpeti quamur reverus spiritus Dei ef;" (de magnete, nat. curat.
119.) "Adepts are those who are guided by the spirit of
God."

Originally, however, this flattering epithet was common
to several sciences, for Paracelsus expressly mentions adept
teleology, adept geometry, adept medicine, &c. All these
sublime distinctions are however fallen into neglect, and the
believers in the philosopher's stone have alone retained pos-
session of the title of adepts. The term therefore in the vo-
cabulary of the alchemists, means a person, who, besides
being a matter of all that has been written, or is current by
tradition, relative to the occult qualities of bodies, has by
contemplation, and in some mysterious manner, acquired an
insight into those secrets of nature, on which depend the
transmutation of metals, and the universal medicine. It was
therefore among the adepts, that the number of persons
thus divinely initiated, was never either more or less than
twelve. The most celebrated of this fraternity are Ray-
mond Lulli, Paracelsus, Van Helmont, and Isaac Hol-
lander; men superior in real chemical knowledge to all of
their contemporaries, but who were led partly by their own
vanity and love of mysticism, and partly by the easy and
eager credulity of the publice to be contented with the fame
of conjurers, when they might have deferred the notice of
poverty as philosophers.

The term adept is sometimes more generally applied to
those who are proficient in any kind of science.

ADEVATANGIE Creek, in Geography, is the eastern
head water of Susquehannah river, in the state of New
York.

ADEquate, something equal to, or co-extended
with, another; and filling the whole measure and capacity
thereof.

In this sense the word stands opposed to inadequate.

Adquate, or total, in Logic, is applied to the objects
of science. The adequate object of a science includes the
material and formal object: the material object of a science
is that part which is common to it with other sciences; the
formal is that which is peculiar to itself.

Adquate ideas, or notions, in Metaphysics, are such
images or conception of an object, as perfectly represent it,
or answer to all the parts and properties of it.

M. Leibnitz defines an adequate notion to be that of whose
several characters we have distinct ideas.—Thus, a circle
being defined, a figure bounded by a curve line which returns
into itself, and whose points are all equally distant from a
certain intermediate point thereby, our notion of a circle is
adequate, if we have distinct ideas of all these circumstances,
viz., a curve returning upon itself, a middle point, an equa-
liity of distance, &c.

All simple ideas are adequate and perfect; and the fa-
culty, be what it will, that excites them, represents them
entire.

The ideas of modes are likewise adequate, or perfect;
except of those modes which occasionally become sub-
stances; for when we speak of modes separately existing,
we only consider them separate from the substance by way
of abstraction.

All abstract ideas are also adequate and perfect; since
they represent all that part of the subject which we then
consider.—Thus, the idea of roundness is perfect, or ade-
quate, because it offers to the mind all that is in roundness,
in general.

Of the same kind are all ideas, of which we know no
original, or external object really existing out of the mind,
by occasion of which they were excited in us, and of which
we think them the images. Thus, when a dog is before us,
it is the external object without us which raises the idea in
our mind; but the idea of an animal in general, has no ex-
ternal object to excite it: it is created by the mind itself,
and must of necessity be adequate or perfect.

On the contrary, the ideas of all substances are inadequte
and imperfect, which are not formed at the pleasure of the
mind, but gathered from certain properties, which experi-
ence discovers in them.

This is evident, because our knowledge of substances is
very defective; and we are only acquainted with some of
their properties: thus, we know, that silver is white, that
it is malleable, that it melts, &c. but we do not know what
farther properties it may have; and we are wholly ignorant
of the inward texture of the particles whereof it con-
stitutes.—Our idea of silver, therefore, not reprenting to
the mind all the properties of silver, is inadequate and im-
perfect.

ADER, Guillaume, in Biography, practised medicine
at Touloupe in the beginning of the 17th century; and
published “Enarrationes de Agrotis et Morbis in Evang.
ela,” Tolos, 1620, 4to. “De petit Cognitio, Prac-
vite et Remedia,” 1628, 4to.

ADER, Eder, Haladsh Hered, in Ancient Geography,
a town thus variously called, allotted to the tribe of Judah;
which, before that distribution was made, is said to have
been the capital of Arab, one of the Canaanitic kings.
This prince attacked and vanquished the Herodites before
their entrance into the promised land. The town was situ-
ated to the south, and near the lake Asphaltites.

ADERAIMIN. See ALDERAIMIN.

ADERANAPATANAM Bay, lies about north-west by
west from Point Pedro, in the island of Ceylon, and west
by south from Calimer Point, on the coast of Coromandel.

ADERBIGAN, or Aderbeytan. See ADERBEITAN.

ADERBORGH, a small town of the circle of Upper
Saxony, in Pomerania, belonging to the king of Prussia;
three leagues north-west of Steina.

ADERBOURGH, a small town in Germany, in the
marche of Brandenburg.

ADERCAN, a town of Perus, in the province of La-
lisbat; 25 leagues north-east of Laa.

ADERCO, in Ancient Geography, a town of Iberia.

ADERKAN, in Geography, a town of Perus, in the
province of Farfeliad; 45 leagues south of Schiras.

ADERNO, a small place in the Val di Demenza, in Sicily,
anciently called Aderamo, and situated near the river Fiume
d' Adorno, at the foot of Mount Gibel, E. long. 15° 25'.
N. lat. 35° 5'. The remains of the walls of this ancient
city still retain an air of grandeur. The pretended temple
of Adronos in the vicinity of it is nothing more than a bath,
constructed of bricks and lava, in the lower period of anti-
quity, when both Sicily and the Roman empire had lost all
their eminent artificers. See Houel's Viz. Pittorique des

ADERSLEBEN, a town of Germany, in the principal-
ship of Halberstadt; 16 miles south-east of Halberstadt.

ADES, or Hades, 66°, from a and los, to see, denotes the
invisible
invisible plane. In the heathen mythology, it comprehends all those regions that lie beyond the river Styx, viz. Erebus, Tartarus, and Elysium. See .Hex.

Dr. Campbell observes, that the word habes, hades, occurs eleven times in the New Testament, and is translated hell in all, except one, where it is translated grave. He thinks, however, that it ought never in scripture to be rendered hell, at least in the sense applied to that word by Christians. In the Old Testament, the corresponding word is יָאָדָשׁ, יָאָד, which signifies the state of the dead in general, without regard to their character or to their condition, either of happiness or misery. The Seventy, in their translation of the word, have almost invariably used יָאָד. See Gen. xxxviii. 35. ch. xili. 58. P. xvi. 10. Acts ii. 27. Some biblical critics, however, among whom we may reckon Father Simon, Bishop Law, and Dr. John Taylor, have contended that the term, in the Old Testament at least, means no more than יָאָד פֶּסְפֵּלֶת or grave. This opinion is examined by Dr. Campbell, and he alleges, that, though our word grave may, in some cases, sufficiently express, not the import of the word פֶּסְפֵּל, but the purport of the sentence; yet, in other cases, it gives but a feeble, and sometimes an improper version of the original. He maintains, that with regard to the situation of hades, it seems always to have been conceived both by Jews and Pagans, as in the lower parts of the earth, and corresponding in depth to the height of the visible heavens, both which are on this account contrived in framed writ. See Job, xi. 7, 8, 9. Pial. xxxiv. 8. Amos ii. 2, 3. Besides, the inhabitants of hades are, from their subterranean abode, designated in the New Testament. (Phil. ii. 10.) יָאָד פֶּסְפֵּל, a word of the same import with the phrase יָאָד פֶּסְפֵּל, יָאָד הַר, יָאָד הַר, יָאָד הַר, יָאָד הַר, יָאָד הַר, יָאָד הַר, יָאָד הַר, יָאָד הַר, יָאָד הַר, יָאָד הַר, יָאָד הַר, יָאָד הַר, יָאָד הַר, יָאָד הַר, יָאָד הַר, יָאָד Hades, or the regions of the dead, and the whole race of terrestrial beings, include the whole rational creation. In proof of the coincidence of the Hebrew and Pagan notions concerning the situation of the place of departed spirits, he refers to the lines of Virgil, Aen. viii. v. 243. &c.

Non fesus, ac quæ qua petitus ut terra debifescas
Infernas referet fedeæ, et regna recludat
Pallida, quis invisa; superque immune barathrum
Cernat, treplimentque immittit, libissime manes.

Dr. Campbell farther observes, that κόλπος, the Hebrew word for grave, is never rendered in the ancient translation גָּדַע, but יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָאָד פֶּסְפֵּל, יָa

This word is also always singular in meaning, as well as in form; but the word for grave is often plural: and the former never admits the possessive pronouns, being the receptacle of all the dead, and therefore incapable of an appropriation to individuals; the latter often. In hades all the dead are represented as present, without exception; but the case is quite different with the graves or sepulchres. If. v. 14. ch. xiv. 9. See also Job xxxviii. 17, in which the challenge to Job could have no relation to a sepulchre, but the door to entry, or the door, which is always known to the living; whereas the case was very different with regard to the habitation of departed spirits. Upon the whole, Dr. Campbell concludes, that the word grave, or sepulchre, never conveys the full import of the Hebrew פֶּסְפֵּל, or the Greek hades. This author proceeds to examine the sense of פֶּסְפֵּל, hades, in the New Testament; and refers to Acts ii. 27, in which the writer, in using two expressions, one regarding the soul, the other the body, would undoubtedly adapt his language to the received opinions concerning each; and if this be the case, hades was as truly, in their account, the soul's destiny after death, as corruption was that of the body. Another clear proof from the New Testament, says Dr. Campbell, that

hades denotes the intermediate state of souls between death and the general resurrection, occurs in Rev. xx. 14, where the expression denotes that death, and the state of souls intervening between death and judgment, i.e. hades, shall be no more; but that to the wicked these shall be succeeded by a more terrible death; and properly so called. See also ch. vi. 8. The apostle Paul, it is said, without naming hades, conveys the same ideas of the state of souls departed. Rom. x. 6, 7. Hades is often used figuratively to denote a humble and miserable state; and thus it is opposed to heav'n. Matt. xiii. 23. xvi. 18. Here it may be observed, with Grotius, (Truth of Christian Religion, p. 308. Clarke's edit.) and many others, that פֶּסְפֵּל, the gates of hades, are a very natural paraphrase for death. So the expression is used by the Seventy as a literal version of the Hebrew. II. xxxviii. 10. See also Wisdom of Solomon xvi. 13. The classical use of this phrase is the same with that of the inspired writers. Homer makes Achilles say, as rendered by our English poet:

Who can think one thing and another tell,
My soul detests him as the gates of hell:

I. lib. ii.

i. e. I hate him as death, or mortally.

To say then, that the gates of death shall not prevail against the church, is, in other words, to say, it shall never die, or be extinct. The only passage, says Dr. Campbell, in holy writ, which seems to countenance the opinion, that פֶּסְפֵּל, hades, means the same thing as פֶּסְפֵּל, a place of punishment, is in Luke xvi. 27. According to the explanation given of this passage, the rich man and Lazarus were both in hades, though in very different situations; the latter in the mansion of the happy, and the former in those of the wretched. When hades is represented as being under the earth, and heaven, or the seat of the blessed, as being above the stars, these expressions should be regarded merely as attempts to accommodate what is spoken to vulgar apprehension and language. See Campbell's Four Gospels, translated from the Greek. Prelim. Diff. vol. i. p. 206.—236. See Sleep of the Soul.

ADES, in Geography. See Rhades.

ADESA, or Adessa, a river of Lyca, in Asia Minor. A town of this name is placed by M. d'Anville, on a small river, which unites with a much larger, called Xanthius.

ADESSE, or Adessa road, lies on the west side of the island of Teneriffe, and six leagues east from Gomera island road, which is opposite. It is open to the south-west.

ADESSENIARII, formed of the verb adeös, to be present, in Ecclesiastical History, a name given to those who in the 16th century held that Jesus Christ is really present in the eucharist, but in a manner different from that which is maintained by the Romanists. The adeollarii, called also impanatarii, are divided into four different opinions concerning this point. Some hold that the body of Jesus Christ is in the bread; others, that it is about the bread; others, that it is with the bread: and lastly, others, that it is in or under the bread. See Impanation.

ADFFECTED, or Affected Equation, in Algebra, is that in which the unknown quantity is found in two or more different degrees or powers: e.g. $x = x^2 - px + q = ax^2 + bx$, which has 3 different powers of $x$, viz. $x^2$, $x$, and $x^1$. See Equation. The term afféted is sometimes used in speaking of quantities that have co-efficients. Thus, in $2a$, the quantity $a$ is said to be affected with the co-efficient 2; and an algebraic quantity is said to be affécted with the sign $+\ or\ -\$, or with a radical sign, when these signs are prefixed.
ADH to it. The term affected, or affected, is said to have been introduced by Vieta.

ADFIGURATION is used to signify a Gothic custom, where a person remarrying, who has children by a former bed, renders them capable of inheriting equally with the common children of both parties. This is done by agreement, and is otherwise called by some adopta per matrimonium. This custom is still retained in Germany, under the name eindkindchaft, and unio prolem. But the learned Hinnecius observes, that the unio prolem is not an ADOPTION. Elem. Jur. Germ. tom. i. § 161.

ADFINES, in Ancient Geography, a town of Switzerland, supposed to be the modern Fain, in the north of the district of Turgaw, on the river Duro, or Thur, not far from the borders of Swabia, about half way between Constance and Freyenthal. It is so called, because at the time when Cassina, the general of the emperor Victorius, with the auxiliary Rhetians, defeated the Helvetii, the former extended their borders thus far; and in the time of the Romans, it was the left town of repute in this quarter.

ADGADNA, in Geography, a town in the Guan, one of the Mariana isles in the South Sea.

ADGE, Agde or Auve, is a river that falls into the gulf of Lyons. It is north-east from Narbonne, between Beziers and Montpelier, and forms a good bay.

ADHA, among the Mahometans. See BIRAM.

ADHAD-EDDOULI, in History, second prince of the race of Buia, or Diikmate, was born about A. D. 925, and succeeded his uncle, Amad-eddouli, in the empire of Peria; and by the additions he made to it, became the most powerful prince in the east. In 977, he became emir and master of Bagdad, and directed his attention to the improvement of his extensive dominions. He built hospitals, founded mosques, cleaned the beds of rivers, and recovered and rendered more fruitful large tracts of land. He encouraged literature and poetry, and cultivated a taste for science, and a profusion in that knowledge which was most esteemed among the Arabs. By marrying one of his daughters to the caliph Al Tay, he mingled the blood of the Buians with that of the ancient sovereigns of the Moelins. His ambition led him to commit occasional acts of severity; but his government was, upon the whole, wise and benevolent. He fell a sacrifice to repeated attacks of the plague, at the age of 47, A. D. 972, and left four sons, who shared his dominions. When this prince was at the point of death, he is reported to have said, with a faltering tongue, "What have all my riches and prosperity availed me? My power and authority are now at an end;" and these words he continued repeating till he expired. Mod. Un. Hist. vol. ii. p. 410.

ADHATODA, in Botany, a species of Justicia. This name is given to it in the Zeylian tongue, from its supposed virtue of expelling the dead fucus, which it signifies.

ADHERENCE, action of, in the Scots Law, is an action competent to a husband or wife, to compel either party to adhere in case of defection.

ADHERGAT, in Geography, a town of Syria, on the frontiers of Arabia.

ADHESION, or AHERENCE, compounded of ad, to, and hèreere, to flock, in a general sense, the state of two bodies which are joined or fastened together, either by mutual attraction, the interposition of their own parts, or the impulse or pressure of external bodies. Anatomists sometimes observe prophysees, or adhesions of the lungs to the side of the thorax, the pleura, and diaphragm, which give occasion to various disorders. We also read of adhesions of the dura mater to the cranium; of the bone to the bladder, though some combat this last as a chimera; at least the instances of it are rare. We have also several cases of adhesions of the intestines, mentioned in the Philosophical Transactions, N. S. 281. The adhesion of two hollow hemispheres and of two polished planes exhibit other instances of adhesion. See ADHESION infra.

ADHESION, in Logic. The schoolmen distinguish two kinds of CERTITUDES: the one of speculation, which arises from the evidence of the thing; and the other of adhesion, or attachment, which does not depend on the evidence, but on the importance of the matter, and the interest we have in its truth.

ADHESION, or ADHERENCE, is also used for the persisting in a former opinion or resolution. After the free conference between the two houses concerning the bill for preventing occasional conformity, when the Lords retired, and it came to the final vote of adhesion, they were so equally divided, that in three questions put to different heads, the adhesion was carried by one vote in every one, and by a different person each time. The Commons likewise adhered; and thus the bill was lost.

ADHESION, adhesion, Fr. in Philosophy, and Ch. misty, is a term generally made use of to express the property which certain bodies have of attracting to themselves other bodies, or the force by which they adhere together: thus, water adheres to the finger, mercury to gold, &c. Hence arises an important distinction between two words, that in a loose and popular sense are often confounded. Adhesion denotes an union to a certain point between two dissimilar substances, and cohefion that which retains together the component particles of the same mass. See COHESION.

Adhesion may take place either between two fluids, as two hemispheres of glass, which, according to an experiment of Delfagubers, adhere to each other with a force equal to 19 ounces on a surface of contact of an inch in diameter; or between solids and fluids, as the suspension of water in capillary tubes; or lastly, between two fluids, as oil and water.

The proximate cause of adhesion has been variously flated by different philosophers. James Bernoulli, in his Difertation on the Weight of the Atmosphere, published in 1682, maintains, that the adherence which two pieces of polished marble oppose to their separation, is owing to the pressure of the air; in proof of which, he affirms as a fact (what in all probability he had himself never attempted to verify), that the two plates were easily separable in vacuo.

Dr. Brook Taylor having observed, in 1713, the ascent of water between two planes of glass, was induced to make several experiments on the adhesive power of surfaces, from which he concluded that the degree of this force might be measured by the weight required to separate them. About the same time Mr. Hankbee proved experimentally the error which Bernoulli had fallen into, in attributing the adhesion of surfaces and capillary attraction to the pressure of the atmosphere, (Philos. Trans. vols. xxv. xxvi. xxvii.) Nevertheless, in 1772, M. M. Lagrange and Cigna, taking for granted a natural repulsion between water and oily substances, imagined if there was an adhesion between water and oil, or tallow, that it must be occasioned by a cause different from attraction; and having ascertained the reality of the adhesion, they concluded that it was occasioned by the pressure of the air, and that Dr. Taylor's method was not well founded.

Such was the state of opinions on the subject, when, in 1773, Guyton Morveau made his celebrated experiments on adhesion.
Attachment in presence of the Dijon academy, (Journ de Physique, i. p. 172 and 462.) demonstrating, as indeed Hauksbee had done before him, not only that water adheres between two parallel plates of tallow separated from each other by a line, but also that the atmospheric pressure is not in the least degree the cause of the phenomenon, which is solely attributable to attraction: in proof of this, a polished disk of glass, 30 lines in diameter, was suspended to the arm of a balance, and brought into contact with a surface of mercury; the counterpoise required to separate it was equivalent to 0.09 grains, and a few grains, and upon moving the apparatus into the receiver of an air-pump, and forming as perfect a vacuum as possible, precisely the same counterpoise was required as before.

In the prosecution of his inquiries on this subject, which Bifmut had principally interspersed with mathematical philosophers, Morveau was led to discoveries, which promised at first to reduce the intricate science of chemical affinities to the certainty of algebraic computation; and, if that hope has since been deceived, it still remains an interesting object to the chemist, and affords much subsidiary assistance in the investigation of the general laws of chemical affinity.

He observed, that the same disk of glass which, when in contact with pure water, adhered to it with a force equal to 256 grains, required a counterpoise of only 210, in order to separate it from a solution of potash, notwithstanding the superior density of this last. This inequality of effects on equal diameters, and in an inverse order to that of the respective specific gravities of the two fluids, appeared not only to be decisive in favour of Dr. Taylor's method, but to encourage the hope of applying it to the calculation of chemical affinities.

In order to verify this proposition (Elémens de Chymie, de l'Académie de Dijon, vol. i. p. 63.), plates of the different metals in their highest state of purity were procured, perfectly round, an inch in diameter, of the same thickness, well polished, and furnished with a small ring in the centre of each so as to keep them suspended precisely parallel to the plane of the horizon. Each of these plates was in turn suspended to the arm of an air-balance, and exactly counterpoised by weights placed in the scale attached to the opposite arm; the plate thus balanced was applied to the surface of some mercury in a cup about two lines beneath it, by sliding the plate over the mercury as in the silvering of mirrors, so as to exclude every bubble of air, weights were then sucesively added till the adhesion between the plate and mercury was broken. Fresh mercury was used for each experiment. The following is the Table of results.

<table>
<thead>
<tr>
<th>Metal</th>
<th>Force equal to 446 grains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silver</td>
<td>429</td>
</tr>
<tr>
<td>Tin</td>
<td>418</td>
</tr>
<tr>
<td>Lead</td>
<td>397</td>
</tr>
<tr>
<td>Bismuth</td>
<td>372</td>
</tr>
<tr>
<td>Zinc</td>
<td>204</td>
</tr>
<tr>
<td>Copper</td>
<td>142</td>
</tr>
<tr>
<td>Antimony (regulus)</td>
<td>126</td>
</tr>
<tr>
<td>Iron</td>
<td>115</td>
</tr>
<tr>
<td>Cobalt</td>
<td>8</td>
</tr>
</tbody>
</table>

The striking differences in the above Table shew that the preasure of the atmosphere has no share in them, since in this respect the circumstances of each were precisely similar: nor do they depend on the respective specific gravities; for if so, silver should rank after lead, cobalt before zinc, and iron before tin. The only order which agrees with the above is that of the chemical affinity of these metals, or the respective degrees of their solubility in mercury (See Amal. de Chim., vol. i. p. 63.)

(c. 5): it is highly probable, therefore, that at least the principal part of the adhesive force that is found by experiment is owing to chemical affinity, and that the above numerical figures 416, 429, 418, 397, &c. is an approximation towards the ratio of the relative affinities of gold, silver, tin, lead, &c. for mercury.

M. Achard, of Berlin, convinced by Morveau's discoveries of the accuracy of Dr. Taylor's method, followed them up by a great multitude of experiments which were published in 1780, along with other tracts in his Chymie Physique et Mathematique. The results of these, if accurate, would make a considerable accession to the science of chemical philosophy, but as there are some rather suspicious circumstances, it will be necessary to investigate M. Achard's system with some minute care.

He lays down three conditions as essential to the accuracy of each experiment. 1. That the whole, whose adhesion with the fluid is to be ascertained, should be suspended by its true central point, in order to be in a truly horizontal position, and that the force employed to separate the adhesion should always form a right angle with the fluid. 2. That no air bubble should remain interposed between the solid and fluid; which is easily perceived when using disks of glass, but can only be inferred when using opaque solids; to obviate this cause of inaccuracy he has found no method answerable to well combining the plates on the surface of the fluid as explained above. 3. In adding the counterpoise, especially towards the end, care must be taken to use very small weights, such as pieces of paper, a quarter of a grain each, and to place these in the scale, gently and gradually, so as to avoid any jerk or sudden action.

The first point to be ascertained was, whether the temperature remaining the same, the difference of atmospheric pressure, as evinced by the barometer, had any influence on the adhesion of surfaces; he found that in this respect there was no difference in the adhesive force between a plate of glass and distilled water.

The results were, however, no longer uniform, when he operated at different temperatures with the same elevation of the barometer; nor did this variation arise from the different temperatures of the surrounding air, but solely from that of the water; pursuing this train of experiment he found that the adhesion of solids to fluids is constantly in an inverse ratio to their temperature: and for the verification of his experiments he instituted a number of calculations from the following data. Let \( x \) be the temperature of the water; \( y \), the corresponding adhesion; \( a \), its co-efficient; and \( b \), the constant force; hence we have the equation \( x = a - b \). To find the value of \( a \) and \( b \), if he made use of two experiments, the one in which water at 104° of Sulzer's thermometer (152° in Paris) was adhered to the glass disk with a force equal to 80 grains, the other where water at 56° S. (96° 7' Fahrenheit) adhered with a force equal to 89 grains. Proceeding from these two terms \( 104 = a - 80 b \) and \( 56 = a - 89 b \) we have, \( a = 530 \) and \( b = -\frac{43}{9} \).

Hence the relation of the temperature of the water to its adhesion to the glass, may be thus expressed, \( x = 530 - \frac{43}{9} y \); and from this are deduced the corresponding values of \( x \) and \( y \) for all the adhesions of glass to water at any temperature.

From these data, and the corresponding experiments, M. Achard
Achard formed the following Table of the adhesive force of a glass disk, $\frac{1}{2}$ inch in diameter, to water at different temperatures.

| Degrees of | Degrees of | Adhesion | Adhesion | Difference |
| Sulzer's | Adhesion | found by | Calculation |
| Ther'm. | by Experiment | | |
| 95 | 141.687 | 81.25 grs. | 81.55 | -0.3 |
| 90 | 135.914 | 82.5 | 82.5 | 0 |
| 85 | 130.141 | 83.75 | 83.43 | +0.32 |
| 80 | 124.368 | 84.5 | 84.37 | +0.17 |
| 75 | 118.595 | 85.75 | 85.37 | +0.38 |
| 70 | 112.822 | 86.5 | 85.25 | +0.27 |
| 65 | 107.049 | 87.25 | 87.18 | +0.07 |
| 60 | 101.276 | 88.5 | 88.12 | +0.38 |
| 55 | 95.503 | 90.25 | 89.06 | +0.25 |
| 50 | 89.730 | 90.25 | 89.93 | +0.12 |
| 45 | 83.957 | 90.75 | 90.38 | +0.38 |
| 40 | 78.184 | 92.5 | 91.87 | +0.37 |
| 35 | 72.411 | 93.75 | 92.81 | +0.04 |
| 30 | 66.638 | 95.75 | 94.73 | +0.02 |
| 25 | 60.865 | 94.5 | 94.08 | -0.18 |
| 20 | 55.092 | 93.75 | 95.02 | +0.15 |
| 15 | 49.319 | 92.5 | 95.56 | +0.31 |
| 10 | 43.546 | 92.5 | 97.5 | 0 |

Of the accuracy of this Table of M. Achard's there seems no reason to doubt, since, in the individual instances, the difference between the force of adhesion found by experiment, and that ascertained by calculation, is so considerable as to exclude the idea of fiction; while, upon the general average, the difference is so small as to give a high opinion of the precision with which the enquiry has been conducted.

We learn from this Table, that for every degree of Sulzer's thermometer ($1.595$ Fahrenheit) taken in a descending series, the force with which a glass disk $\frac{1}{2}$ inch in diameter adheres to the surface of water, is increased by $0.1876$ grains according to calculation, or $0.1878$ by experiment, in an uniform ratio; now two things take place during the cooling of the water, viz. a portion of caloric is separated, and the bulk of the water is effused; each of these causes may account for the increased adhesive force, but upon different principles. If it is owing to the escape of caloric, it may be accounted for in the following way. Water at any state of liquidity is, properly speaking, a compound of caloric and water, which combine together by a slight degree of affinity; and in proportion to this force reflect the union of any third substance either with the caloric or the water: if part of the caloric is taken away, the water is more disposed to union with a third substance by the whole quietest affinity of the water and the abstracted caloric; therefore the force by which a plate of glass adheres to water is increased, exactly in proportion to the diminution of the temperature, or, in other words, the increase of weight is the exponent of the quietest affinity of the mafs of water and the caloric taken away. According to Morveau's observations on this same Table; "The adhesion is stronger when the water is colder, because containing more ponderable matter in a given volume, it presents to the glass-plate more points of contact; and the force of adhesion being proportional to the sum of these points, it ought to augment or diminish, as the fluid is condensed by cold, or rarified by heat." These few words express the aim and object of all the experiments of Morveau on this subject; namely, that chemical affinity is only a modification of the attraction of cohesion, and in like manner subject to mathematical computation. The general reasonings on which this opinion is founded will be discussed hereafter in the article chemical affinity; all that is necessary here, is to show, that the argument just mentioned, deduced from M. Achard's Table, is liable to a very strong objection. The fact being allowed, that the adhesion becomes uniformly greater in proportion to the diminished temperature of the water, it follows, that if this adhesion is owing simply to the cohesive attraction of the proximate particles of the glass and water, the degree of this force will be according to the number of proximate particles in a given superficies; or, in other words, directly as the specific gravity. Now, by the experiments of Achard, the adhesion between the glass-plate and water at $152^\circ$ Fahrenheit, is equal to $80$ grains, and at $96^\circ$ Fahrenheit, equal to $89$ grains. From Kirwan's experiments on specific gravity (Phil. Trans. vol. lxxxv. pt. 1. p. 267.) it appears, that the weight of a cubic inch of water at $152^\circ$ Fahrenheit, is equal to $248.7$ grains; and the same at $96$ Fahrenheit, equal to $252.47$ grains; if, therefore, the adhesion is as the specific gravity, the adhesive force at $96$ Fahrenheit ought to be only $81.21$, instead of $89$ for $248.7 : 80 :: 252.47 : 81.21$.

Having ascertained the influence of temperature on the adhesion of surfaces, the next object with M. Achard was to determine the ratio between the force of adhesion and the superficial magnitude of the fold. For this purpose he procured round plates of glass of different diameters, from $1.5$ inch to $7$ inches, and having first determined the force of their adhesion with the different fluids, by the number of grains necessary to overcome it, he afterwards calculated the same by the following equation. Let $p$ be the force of adhesion belonging to a disk of glass, whose diameter is $a$; and $y$ the adhesive force of a similar disk, whose diameter is $b$, we shall then have $a^2 : b^2 :: p : y^2$.

$$y = \frac{b^2}{a^2}$$

From these materials the following Table has been constructed.
TABLE II.
The force of adhesion between glass disks of different diameters, and different kinds of fluids, determined by experiment and calculation.

<table>
<thead>
<tr>
<th>Diameter of the Disk</th>
<th>Distilled water</th>
<th>Alcohol</th>
<th>Liquid ammonia</th>
<th>Solution of potash</th>
<th>Oil of Tung-oil</th>
<th>Linseed oil</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>364.</td>
<td>216.</td>
<td>328.</td>
<td>420.</td>
<td>240.</td>
<td>268.</td>
</tr>
<tr>
<td>1.75</td>
<td>495.</td>
<td>294.25</td>
<td>447.</td>
<td>571.</td>
<td>326.5</td>
<td>363.25</td>
</tr>
<tr>
<td>1</td>
<td>647.25</td>
<td>582.</td>
<td>583.</td>
<td>746.</td>
<td>426.</td>
<td>475.</td>
</tr>
<tr>
<td>1.25</td>
<td>819.75</td>
<td>738.</td>
<td>945.</td>
<td>1167.</td>
<td>666.</td>
<td>744.</td>
</tr>
<tr>
<td>1.5</td>
<td>1010.</td>
<td>912.</td>
<td>1166.</td>
<td>1410.75</td>
<td>806.</td>
<td>901.</td>
</tr>
<tr>
<td>2</td>
<td>1223.5</td>
<td>1102.</td>
<td>1414.</td>
<td>1690.5</td>
<td>961.</td>
<td>1072.25</td>
</tr>
<tr>
<td>2.5</td>
<td>1457.</td>
<td>1311.5</td>
<td>1639.</td>
<td>1897.</td>
<td>1126.5</td>
<td>1259.</td>
</tr>
<tr>
<td>3</td>
<td>1703.</td>
<td>1538.25</td>
<td>1875.</td>
<td>2286.</td>
<td>1305.75</td>
<td>1458.5</td>
</tr>
<tr>
<td>3.5</td>
<td>1981.5</td>
<td>1786.</td>
<td>2286.</td>
<td>2624.5</td>
<td>1500.</td>
<td>1675.25</td>
</tr>
<tr>
<td>4</td>
<td>2257.</td>
<td>2049.</td>
<td>2625.</td>
<td>3040.</td>
<td>1707.</td>
<td>1905.</td>
</tr>
<tr>
<td>4.5</td>
<td>2587.</td>
<td>2332.3</td>
<td>3040.</td>
<td>3464.</td>
<td>1905.</td>
<td>2175.25</td>
</tr>
<tr>
<td>5</td>
<td>3044.</td>
<td>2986.</td>
<td>3644.</td>
<td>4666.8</td>
<td>2977.</td>
<td>3464.</td>
</tr>
<tr>
<td>5.5</td>
<td>3555.</td>
<td>3456.</td>
<td>4666.</td>
<td>5248.25</td>
<td>3839.5</td>
<td>4289.25</td>
</tr>
<tr>
<td>7</td>
<td>5824.5</td>
<td>5248.25</td>
<td>5836.</td>
<td>7143.</td>
<td>5835.75</td>
<td>5836.</td>
</tr>
</tbody>
</table>

Hence it appears, that the difference of adhesion manifested by different sized disks of glass with the same fluid, is in the ratio of the squares of their diameters; and this may be admitted as true, at the same time that it may be doubted whether the Table expresses faithfully the results of the experiments. If we bear in mind the first of the conditions which M. Achard himself lays down as essential for the correctness of the experiment, namely, that the disk should be suspended by the true centre of its mass and figure, and that the force employed to detach it should always form a right angle with the plane of the disk, and of the fluid, it will be obviously extremely difficult to procure the concurrence of these circumstances, when operating even with the smallest of the disks mentioned in the Table; and with larger disks, the causes of error must increase at least in proportion to the squares of their diameters. By comparing the differences between experiment and calculation, when a disk 1.75 inch in diameter was used, with those that took place when a disk 7 inches in diameter was used, we shall find them to be according to the Table, 0.000799 : 1.000025; whereas, if the probable causes of error were only as the diameters, the proportion ought to be 0.999799 : 4.000100; and if the squares of the diameters are admitted as the true proportion, it should be 0.999799 : 21.700542.

Besides the experiments already mentioned, a series of 600 more was made by M. Achard, with different solids formed into disks of equal diameters, and applied to the surface of some of the simplest and more compound fluids; unfortunately several of the solids and fluids are so heterogeneous in their chemical composition as to afford few important results; those which are of most consequence are assembled in the following Table:

TABLE
TABLE III.

The force of adhesion of different solids, in disks 1.5 inch in diameter, with water and other fluids, at 75° Fahrenheit's thermometer, determined in grains.

<table>
<thead>
<tr>
<th>Solids</th>
<th>Fluids</th>
<th>Distilled water</th>
<th>Sulphuric acid</th>
<th>Concentrated vinegar</th>
<th>Alcohol</th>
<th>Acetate of lead</th>
<th>Acetate of copper</th>
<th>Deliquat ed potash</th>
<th>Liquid amonial</th>
<th>Sulphuric ether</th>
<th>Oil of turpentine</th>
<th>Oil of almonds</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Specific gravity</td>
<td>1000.0</td>
<td>1868.4</td>
<td>1019.7</td>
<td>842.</td>
<td>1131.5</td>
<td>1000.0</td>
<td>1368.4</td>
<td>1046.</td>
<td>828.9</td>
<td>881.5</td>
<td>907.8</td>
</tr>
<tr>
<td>Plate-glass</td>
<td>91</td>
<td>115</td>
<td>87</td>
<td>54</td>
<td>98</td>
<td>96</td>
<td>105</td>
<td>82</td>
<td>54.5</td>
<td>60</td>
<td>66</td>
<td></td>
</tr>
<tr>
<td>Rock crystal</td>
<td>92</td>
<td>112</td>
<td>86</td>
<td>53</td>
<td>98.75</td>
<td>95</td>
<td>103</td>
<td>80</td>
<td>53</td>
<td>58.5</td>
<td>66</td>
<td></td>
</tr>
<tr>
<td>Gypsum</td>
<td>90</td>
<td>199.75</td>
<td>78</td>
<td>46.5</td>
<td>87.25</td>
<td>85</td>
<td>93</td>
<td>71</td>
<td>48</td>
<td>52.5</td>
<td>56.5</td>
<td></td>
</tr>
<tr>
<td>Sulphur</td>
<td>96.5</td>
<td>123</td>
<td>92.5</td>
<td>58</td>
<td>107</td>
<td>101.5</td>
<td>110.5</td>
<td>86</td>
<td>57.5</td>
<td>64</td>
<td>69</td>
<td></td>
</tr>
<tr>
<td>Yellow-wax</td>
<td>97</td>
<td>120.5</td>
<td>92.75</td>
<td>56.5</td>
<td>106.5</td>
<td>103</td>
<td>111</td>
<td>88</td>
<td>59</td>
<td>64</td>
<td>71</td>
<td></td>
</tr>
<tr>
<td>Iron</td>
<td>-</td>
<td>116</td>
<td>88</td>
<td>56</td>
<td>104</td>
<td>98.25</td>
<td>108</td>
<td>83.5</td>
<td>55.5</td>
<td>61</td>
<td>68</td>
<td></td>
</tr>
<tr>
<td>Copper</td>
<td>96.5</td>
<td>123</td>
<td>92</td>
<td>57.25</td>
<td>106.5</td>
<td>102</td>
<td>112</td>
<td>87</td>
<td>58</td>
<td>62.5</td>
<td>68.75</td>
<td></td>
</tr>
<tr>
<td>Tin</td>
<td>94.5</td>
<td>91</td>
<td>55.5</td>
<td>103.5</td>
<td>100</td>
<td>108.5</td>
<td>86</td>
<td>54.75</td>
<td>61</td>
<td>69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lead</td>
<td>100.25</td>
<td>129.25</td>
<td>98</td>
<td>59</td>
<td>111</td>
<td>107</td>
<td>115</td>
<td>91.5</td>
<td>61</td>
<td>67</td>
<td>72</td>
<td></td>
</tr>
<tr>
<td>Brass</td>
<td>99</td>
<td>124.5</td>
<td>96</td>
<td>59</td>
<td>110.5</td>
<td>103.5</td>
<td>114</td>
<td>90</td>
<td>60</td>
<td>65</td>
<td>70.5</td>
<td></td>
</tr>
<tr>
<td>Zine</td>
<td>-</td>
<td>96</td>
<td>59</td>
<td>110.5</td>
<td>103.5</td>
<td>114</td>
<td>90</td>
<td>60</td>
<td>65</td>
<td>70.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If this Table may be at all depended upon, the results are very extraordinary, as will appear at once by arranging the articles in the several columns according to the order of their adhesion. Thus

TABLE IV.

<table>
<thead>
<tr>
<th>Distilled water</th>
<th>Sulphuric acid</th>
<th>Concentrated vinegar</th>
<th>Alcohol</th>
<th>Acetate of lead</th>
<th>Acetate of copper</th>
<th>Deliquat ed potash</th>
<th>Ammonia</th>
<th>Sulphuric ether</th>
<th>Oil of turpentine</th>
<th>Oil of almonds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
</tr>
<tr>
<td>Bras</td>
<td>Bras</td>
<td>Bras</td>
<td>Bras</td>
<td>Bras</td>
<td>Bras</td>
<td>Bras</td>
<td>Bras</td>
<td>Bras</td>
<td>Bras</td>
<td>Bras</td>
</tr>
<tr>
<td>Wax</td>
<td>Sulphur</td>
<td>Copper</td>
<td>Copper</td>
<td>Copper</td>
<td>Copper</td>
<td>Copper</td>
<td>Copper</td>
<td>Copper</td>
<td>Copper</td>
<td>Copper</td>
</tr>
<tr>
<td>Wax</td>
<td>Sulphur</td>
<td>Copper</td>
<td>Copper</td>
<td>Copper</td>
<td>Copper</td>
<td>Copper</td>
<td>Copper</td>
<td>Copper</td>
<td>Copper</td>
<td>Copper</td>
</tr>
<tr>
<td>Zine</td>
<td>Wax</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
</tr>
<tr>
<td>Zine</td>
<td>Lead</td>
<td>Lead</td>
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<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
</tr>
<tr>
<td>Tin</td>
<td>Lead</td>
<td>Lead</td>
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<td>Lead</td>
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<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
</tr>
<tr>
<td>Zine</td>
<td>Lead</td>
<td>Lead</td>
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<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
</tr>
<tr>
<td>Iron</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
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<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
</tr>
<tr>
<td>Pl-GLASS</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
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<td>Lead</td>
</tr>
<tr>
<td>R. crytal</td>
<td>Lead</td>
<td>Lead</td>
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<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
</tr>
<tr>
<td>Gypsum</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
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<tr>
<td>Gypsum</td>
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<td>Lead</td>
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<tr>
<td>Gypsum</td>
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<tr>
<td>Gypsum</td>
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<td>Lead</td>
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<tr>
<td>Gypsum</td>
<td>Lead</td>
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<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
<td>Lead</td>
</tr>
</tbody>
</table>

Hence it is manifest that the strength of adhesion is not owing either to the specific gravity of the solid or of the fluid; nor is it at all more conformable with the acknowledged order of chemical affinities. Why lead and brass should generally be the first in each column, and why sulphur and wax should be interposed between these and the rest of the metals, is wholly unaccountable, and contradictory to all known chemical facts. The column, at the head of which is the acetate of lead, contains besides several peculiar difficulties. The plates of zinc, iron, and tin, would begin to decompose this salt as soon as they came in contact with it, and would in consequence be superficially covered with lead; the acquired weight of lead, therefore, and the loss of substance sustained by the metallic plates, would be too powerful disturbing causes in the performance of the experiment; besides, as each of the plates would be coated with lead, the greatest part of the adhesive force ought to be reckoned as belonging to the adhesion of lead to acetate of lead, and in consequence the three corresponding numbers in Tab. III. ought to be nearly equal, which they are not; the same objections, and perhaps with still greater force apply to the column whose title is acetate of copper, on account of the more perfect adhesion of the revived copper to the surface of the zinc and iron plates.

In the Journal de Physique (vols. xii. xiii. and xiv.) is a series of papers by M. Dutour, on the subject of capillary attraction,
attraction, which contains some excellent observations on Dr. Taylor's method; he maintains, that the force of adhesion is then only truly expressed by the weight of the counterpoise, when upon raising the solid plate out of the fluid no particles of this last are found adhering to it: thus the adhesion of mercury to glass, to marble, to those metals with which it does not readily amalgamate, is accurately expressed by the weight necessary to counterpoise this adhesion; but where the solid comes out covered with a thin plate of the fluid, as is the case when a plate of gold or silver is applied to a surface of mercury, it is obvious that the separation of the solid and fluid does not take place at their plane of adhesion, but some way below it in the substance of the mercury, so that the weight of the counterpoise is rather the expression of the cohesion of the mercury, than of the adhesion between it and the gold. Hence arises the necessity of taking into consideration the cohesive force of the fluids themselves in calculating with any accuracy the adhesion between solids and fluids, and this requires to be much nicely, so liable to be affected by small changes of temperature and other circumstances, as to preclude any great dependence upon it, in determining the comparative energy of different cases of chemical affinity.

Upon the whole then we may conclude that there exists a tendency to adhesion between many, and probably between all substances in nature, absolutely independent of atmospheric or any other external pressure; that the force of this adhesion between solids and fluids is in an inverse ratio to the thermometrical temperature, and a direct ratio to the squares of the surfaces; that every solid adheres with a peculiar force to each fluid, and that the different degrees of adhesive force between the same fluid and equal surfaces of different solids form a series which corresponds with the order, and is perhaps the exponent of the proportion of their respective chemical affinities to the same fluid; that this force is truly expressed by the weight necessary to break the adhesion in all cases where the solid comes out clean from the fluid, but that whenever any particles of the fluid adhere to the solid, the weight of the counterpoise is then expressive of the mixed forces of the adhesion between the surfaces of the solid and fluid, and of the cohesion between the component particles of the fluid, which last case in the present state of our knowledge, cannot be depended on with any accuracy in the calculation of chemical affinities. Encyclop. Meth. Art. Adhesion.

Some, however, have supposed, and others have allowed, that, although in the case of polished planes, brazen hemispheres and leaden bullets, which adhere to one another with a considerable force both in the air and in vacuo, the principal cause is their mutual attraction, yet the pressure of the air may contribute in a slight degree to their adhesion. But the effect of this cause is very inconsiderable, and, compared with the other, fearfully deferred notice.

Adhesion; in Surgery, the same as agglutination, a preternatural process, by which various parts of the body adhere together and become one mass. A partial cohesion, for example, often takes place between the pleura of the lungs and ribs, between the heart and pericardium, the liver and diaphragm, or between other contiguous visera, after an attack of inflammation. This process also follows if two abraded or ulcerated surfaces be applied for some time to each other, as when the fingers have been severely burnt and not kept afoother. What is called "healing of wounds by the first intention," likewise comes under this denomination: the doctrine of adhesion is, therefore, of considerable importance in surgery, and should be carefully attended to. The right understanding of this doctrine has led to many of the greatest improvements in modern practice, especially in the extirpation of tumours, in the treatment of recent wounds and in amputation. The perfect union of living parts can only happen where there is a mutual elongation or insolution of the blood-veils at the two contiguous surfaces, or at least where the veils from one part shoot into the adjacent substance, and thus keep up a vital communication.

ADITII, in Ancient Geography, a star of the sixth magnitude, upon the garment of Andromeda, under the last star in her foot.

ADHOA, in Ancient Customs, denotes what we otherwise call relief. In which sense we also sometimes find the word written adhibet, adhibendum, and adhibiscendum. Du Cange.

ADJA, or AGGA, in Geography, a burg and fort of Guinea, on the coast of Fantin, belonging to the East India Company.

ADJABA, in Ancient Geography, a town built by Simon Macabaurus, in a plain, or elevated, as a place of defence.

ADJABDA, a town of Asia, in Albania, placed by Ptolemi in long. 79°, and lat. 45° 30'.

ADJABENE, the chief province of Affyria, which sometimes gave its name to the whole country. It was so called according to Ammianus (l. xxiii. c. 20.) from the two rivers Diaba and Adjaba, which Valesius (in loc.) says, are more frequently denominated Zabas and Arzabas. Stephanus (de Urb. vol. i. p. 22.) confounds Adjabene with Mesopotamia. In this province, which was the richest and most fruitful of Affyria, Ptolemi (l. vi. c. 1.) and Ammianus place Ninus or Nineveh, Gurgamela, and Artelia; and with them Strabo (l. xvi. vol. 2. p. 1071) agrees; for though he places Ninus and Gurgamela in Aturia, and Arzab in a district of its own name, yet he makes both Aturia and Arzab parts of Adjabene. This province became a distinct kingdom in consequence of the disturbances that prevailed among the Seleucides, and was held by successive sovereigns in opposition to the Syrian kings, till they were expelled by the power of the Roman emperors. The first king mentioned in history, reigned in the time of the Mithridatic war, and joined Tigranes against Lucullus. In the reign of the emperor Claudius, Monobaza, called also Bazecz, ruled over the Adjabenians; who was succeeded by Izates, his son, by his sister Helena, whom he had married. Izates, being instructed in the Jewish religion (see Jos. Antiq. l. xx. c. 2. tom. i. p. 957, &c. Ed. Haverc.) introduced it among his subjects; upon which they conspired against him, and called in Abias the king of Arabia, to their assistance. Failing in this attempt, they solicited the assistance of Vologeses, king of the Parthians; he was equally unsuccessful; and Izates closed his life and reign in peace, and left five sons, who were educated under their grandmother Helena at Jerusalem, and there taught both the Jewish language and religion. Little is known concerning the affairs of this kingdom from the death of Izates, who was contemporary with the emperor Claudius, and who bequeathed his crown to his brother Monobaza, until the reign of Trajan, when it was governed by one Mebarfapes, who joined Chosroes, king of the Persians, against the Romans. This war proved unsuccessful, and Mebarfapes was driven from the throne; and though Mannus king of Arabia, attempted to restore him to the kingdom, his enterprise for this purpose was ineffectual, and he was obliged to conclude a peace with Rome. Trajan, having obtained possession of Ademylira, a fortified place of great strength, which was delivered to him by Sentius, a centurion, who had escaped the treachery
of Mebarthaper, formed a bridge of boats over the river Tigris, and made himself master of the whole kingdom of Adiabene, A. U. C. 868, or in the 115th year of the Christian era. The Adiabeneans, however, emancipated themselves from the Roman yoke; but were again reduced by Severus, A. U. C. 948, denominated from this circumstance Adiabanicus. See Dion. Cafs. Hist. Rom. vol. ii. p. 1137. Ed. Reimari. In the reign of Sapor II. king of Persia, the Adiabeneans, as we learn from Sozomen (I. ii. c. 12.) embraced the Christian religion, and were on that account treated with great cruelty by this king, to whom they were subject.

**ADJACENT**, or **ADJOINING**, of **ad**, to, and **jaceere, to lie**, something situated near, or by the side of another.

**ADJACENT angle. See Angle.**

**ADIADA**, in **Ancient Geography**, a town of Palestine, in the tribe of Dan. See **Anida.**


Of all the species above enumerated one only belongs to Great Britain, viz. the *A. capillus veneris*, or true maidenhair, which is found only in Scotland and Wales on rocks and moor walls, and which is a native of the south of Europe and the Levant. The fronds or leaves of this species are doubly compound; the leaflets or wings are alternate; the pinnae or leaflets are wedge-shaped, lobed, and pedicilled, or on leaf-flakes: it is perennial, and flowers from May to September. This is a very succulent plant, yielding almost its whole weight of juice; but neither its taste nor smell promises any efficacy. If the syrup of capillary, which is made from it, be good for any thing, it is from the orange-flower water that is put into it. The *A. pelatum*, or Canadian maidenhair, is a native of Canada, Japan, and the Society islands, and was brought into England from Virginia by John Tradescant, the son, before the year 1640. It flowers in August and September. In Canada this plant grows so plentifully, that the French, when they were in possession of that country, sent it to France as a package for goods, and the apothecaries at Paris used it instead of the true maidenhair. The leaves of both these species have a flight sweetish roughish taste, and a pleasant but weak smell, very perceptible when boiling water is poured upon them. Infusions, or decoctions of them impregnated, yield a moderately rough, bitterish, mucilaginous extract. Maidenhair has been long esteemed good against disorders of the breast, for promoting expectoration, softening recent coughs, and allaying the tickling in the throat occasioned by dryness of thin rheum. For these purposes a syrup of the true form, flavoured with orange-flower water, has been usually brought from France, and a syrup of the Canada form, made with maple sugar, is sometimes received from America. Our confectioners prepare a syrup of the maidenhair, which they sell under the name of *capillaire*. But the English maidenhair, or *Asplenium*, has been commonly substituted in the pectoral syrups and infusions made among us. The Canada species is said to be superior to both. But the virtue of the maidenhair may be obtained to much greater advantage, by drinking an infusion of the herb as tea, sweetened either with sugar, or by the addition of a little liqueur. Lewis, Matt. Med.

**Culture.** The only species that have been cultivated with us are the 18, 23d, 30th, 39d, 42d, and 45th, in the above enumeration. The *A. capillus veneris* may be preferred in pots filled with gravel and lime-rubbit, in which it will thrive much better than in good earth. The *A. pedatum* will live through the winter in the open air, if the season be moderate; but as severe frosts will sometimes destroy it, a plant or two should be kept under shelter. The *A. villosum*, and *A. longifolium* must be preferred in a sober, and will afford by their shining black flakes, and odd-shaped leaves, an agreeable variety among other exotic plants. The *A. reniforme*, fragrant, and *plicariae*, may be kept in the green-house.

**ADIANTUM aureum.** See **Polytrichum.**

**ADIANTUM nigrum.** A species of *Asplenium.**

**ADIANTUM, in Natural History.** See **Tubularia.**

**ADIAPHORISTS, or ADIAPHORITIS, compounded of a priv. and **adiaphor.**, different, and denoting indifferent; in **Ecological History**, a name given in the 16th century to the moderate Lutherans, who adhered to the sentiments of Melancthon; and afterwards to those who subscribed the **Interim** of Charles V. Melancthon, whose sentiments were moderate, and temper mild and gentle, declared on this occasion, that, in his opinion, compliance was due to the Imperial edicts in matters of an **indifferent** nature: but both he and his associates ranked in this class many things which appeared to Luther and his disciples to be of the highest importance; particularly the doctrine of justification by faith alone, and the necessity of good works to eternal salvation, as well as the number of the sacraments, the jurisdiction claimed by the pope and the bishops, extreme
tion, and the observation of religious festivals and super-
fluous rites. Hence sprung the adlaphtorific controversy,
as it was called, which divided the church for many years,
and obstructed the progress of the reformation. See Form
of Concord.

ADAPHTIFIC is a denomination given by Mr.
Boyle to a kind of spirit distilled from tar and some other
vegetable bodies, and which is neither acid, vinous, nor
unius; but in many respects different from any other kind
of spirit.

ADAPTEUSIA, from α, δε, and τιν, I breathe, in
Medicine, signifies defective peroration, from dente pores, &c.

ADAPTOTOS, a Greek word signifying firm, and
applied by some medical writers to a remedy for the colic,
which is Rome parsley, henbane feed, white pepper, &c., made
into an electuary.

ADARRHICA, from α, δε, and τιν, I flow, signifies
a total suppression of all the necessary evacuations.

ADAZO. See Ajazzo.

ADICARA, in Ancient Geography, a town of Asia,
early the Persian gulf, which Ptolemy places in long. 79°,
and lat. 26°, 50°.

ADICE, in Botany. See Nettle.

ADDIA, Addis, or Adiara, in Ancient Geography,
a city of Judea, not far from Jerusalem. Josephus says,
that when Vespasian besieged Jerusalem, he established a
camp and guards in this place as well as in Jericho. Simon
Macrobeus also encamped in this place to dispute the
entrance into the country with Tryphon, who had bar-
barously seized his brother Jonatham, at Ptolemais. 1 Mac-
tom. 1. p. 632. Adda is probably the same with Addus.

ADJECTIVE, in Grammar, a kind of noun joined
with a substantive, either expressed or implied, to show its
qualities or accidents.

The word is formed of the Latin adjoere, to add to; as it is
designed to be added to a substantive, without which it
has no specific signification.

Father Butler defines adjectives in a manner somewhat
different from other grammarians—Nouns, according to
him, are substantives, when the objects which they repre-
sent are considered simply, and in themselves, without any
regard to their qualities; on the contrary, they are ad-
jectives, when they express the quality of an object. Thus,
when I say, simply, a heart, the word heart is a substantive,
because none of its qualities are expressed; but when I say,
a generous heart, the word generous is an adjective; because it
adds a quality, or attribute, to the heart. Adjectives, then,
appear to be nothing else but modificatives.

In effect, the end of an adjective being only to express
the quality of an object; if that quality be the object itself
whereof we speak, it becomes a substantive; e. g. If I say,
this book is good; good here is an adjective; but if I say, good
is always to be chosen, it is evident good is the subject I speak
of; and consequently good, there, is the substantive.

On the contrary, it often happens in other languages, and
sometimes in our own, that a substantive becomes an ad-
jective; as, for instance, in these words: the king, hero as he is,
remembers he is a man, where the word hero, though ordi-
narily a substantive, is apparently an adjective. From this
idea of an adjective, it appears that many of the nouns,
which, in the common grammars, are accounted substantives,
are really adjectives, and vice versâ: grammar in this, and a
thousand other infinences, depending upon custom.

An adjective, according to the definition of Mr. Harris,
(Hermes, p. 186.) has no affixion, and only denotes such an
attribute, as has not its essence either in motion or its priva-
tion. Thus in general the attributes of quantity, quality,
and relation, such as many and few, great and little, black
and white, good and bad, double, treble, quadruple, &c.
are all denoted by adjectives. Every adjective may also be
considered as capable of being resolved into a substantive,
and an expression of connection equivalent to of, e. g. a good
man, is a man of goodness; in which case the adjective ex-
presses not only an attribute, but also the connection be-
tween the attribute and its substance; and the particular
kind of connection is ascertained by experience. In this
view of the subject the adjective appears to have two uses.
The first and principal is that of restricting or modifying a
general term, as in the instances above recited. The second
is, when the abstract substantive contained in the adjective
is modified by the noun, with which, in the concrete or ad-
jective form, that abstract substantive is joined. The former
may be called the direct, and the latter the inverse, accepta-
tion of adjectives. In the following passage, Livy says,
Regnatum orbis urbe condita ad liberatam annum ducentos
quadraginta quinuages. i.e. monarchy was founded at Rome
from the building of the city to its deliverance: the partici-
bles, or adjectives, condita and liberatam, are used inversly;
and the abstract substantives contained in these words are
modified or restricted by the substantives orbis and urbe, with
which they are supposed to unite. Mr. Harris observes
(ubi supra, p. 187), that attributes sometimes assume an
affection, and appear as verbs: as albus, or albus sum, immit
or tunicas est, and ιδος γ. ιν. α. ιδος γις, is equal. Of
these there are but few, and they may be called verbal adjectives.
Participles likewise infensibly pass into adjectives, as dmus or learned, lose their power as participles, and mean a per-
on possessed of an habitual quality. Thus also vir clupenus
denotes a peron who poisses the habit of speaking, and is not a
person now speaking. Substantives may also be con-
verted into adjectives; when we say the party of Pompey,
the style of Cicero, the philosophy of Socrates, the perons
perform the part of attributes, or slamp and characterise
their subjects; so that they assume the form of adjectives.
And we accordingly say, the Pompeian party, the Cicero-
nian style, and the Socratic philosophy. Even pronominal
substantives admit the like mutation. Instead of saying
the book of me, of thee, and of him, we say, my book, thy book,
and his book; or the country of us, of you, and of them,
we say our country, your country, and their country;
which words may be called pronominals adjectives. In English
the adjective is not varied on account of gender, number,
or case. Dr. Lowth, indeed, (Intro. to Eng. Grammar,
p. 56.) excepts some few pronominal adjectives, which have
the poissive case, as,

Teach me to feel another's woe.

Pope.

and the adjectives: former and latter, which may be considered
as pronominal, and representing the nouns, to which they
refer. The only variation which it admits of, is that of the
degrees of comparison.

In the Greek and Latin, however, they have the same
form with substantive nouns; and are declined, like them,
by cases, and subjected to the like diibinations of number
and gender. It is obvious, that neither number, nor gender,
nor cases, nor relations, have any thing to do, in a proper
sense, with mere qualities, such as good or great, gentle or
hard: and yet bonus, magnum, and tener, have their singular
and plural, their masculine and feminine, their genitives and
datives, like any of the names of substantives, or perons.
To account for this circumstances, Dr. Blair (Lectures, vol. i,
p. 199.)
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p. 199) directs us to consider the genius of those tongues. They avoided, as much as possible, regarding qualities separately, or in the abstract. They made the adjective depend on its substantive, and refuse it in termination, number, and gender, in order that the two might coalesce the more intimately, and be joined in the form of expression, as they were in the nature of things. Thus also they favoured that liberty of transposition, which their languages allowed. In the English sentence, “Beautiful wife of a brave man,” the juxtaposition of the words prevents all ambiguity. But in the Latin, “Forma fortis viri ex nocte,” it is only the agreement in gender, number and case, of the adjective “forma fortis,” which is the first word of the sentence, with the substantive “vir ex nocte,” which is the last word, that declares the meaning.

The learned Mafclef observes, (Gram. Heb. v. i. p. 56.) that in the Hebrew language, all those words are adjectives which are changed from the masculin into the feminine by the addition of the latter ד, as בְּיָעָע בְּיָעָע, בְּיָעָע, &c. and therefore the Hebrews refer to the class of adjectives many words which we should rank as substantives. There are many distinguishing idioms of the Hebrew language that result from the use and application of the adjective: e. g. the substantive precedes it, as בְּיָעָע בְּיָעָע, בְּיָעָע; and when the contrary is the case, the verb substantive is understood, as in Px. xxxiii. 4. Px. xxxii. 10. except when numerical adjectives occur.


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ADVERB, in Law, a judicial writ, commanding inquiry to be made of any thing touching a cause depending
depending in the king's court, for the better execution of justice, as of hobbyd, or the like. Reg. Indic.

ADINSIK, in Geography, a town of Asiatic Turkey, three leagues south-east of Artaki.

ADJODIN, a town of Hindoostan, in the Subah of Moultan, 95 miles east of Moultan, and 68 south of Lahore.

ADJOINING is particularly used for the associating of a person to another, or appointing him a colleague, or ADJUNCT.

ADJOURNMENT, formed of adj, to, and Fr. jour, day, q. d. another day, in Læce, the putting off a court or meeting; and appointing it to be kept at another time or place; in which sense we meet with the phrase adjournment in eyre, for an appointment of a day when the justices in eyre intend to sit again. Adjournment of parliament is a continuance of the session from one day to another, and is done by the authority of each house separately, every day, and sometimes for a fortnight or month together; and differs from PROROGATION and DISSOLUTION. The adjournment of one house is no adjournment of the other. After an adjournment, all things continue in the same state as at the time of the adjournment, and may be proceeded on without any fresh commencement; whereas, after a prorogation, such bills as are only begun and not perfected, must be resumed de novo (if at all) in a subsequent session.

ADIPOCIRE. Cras, matiere graisse, matiere adipocire, is a term formed of adips, fat, and ceras, wax, and denotes a sublimation, the nature and origin of which are explained in the sequel of this article.

The changes which animal matter undergoes in its progress towards total decomposition, have been for many obvious reasons but little attended to: the disfiguring circumstances by which they are accompanied, the real danger to health, and the decent reverence for the receptacles of the dead which prevails in all countries, have hitherto opposed almost insuperable obstacles to the investigations of science on this most interesting subject; it is therefore a peculiarly fortunate circumstance, when from motives of police or general convenience, the great progress of the resolution of organised into inorganic matter, with all its various modifications, is submitted to the inspection of chemical philosophy. An opportunity of this kind was offered at Paris in 1785, and 1787, when the old burial ground of the Innocents was laid out for building upon, in consequence of which, the surface foil, and the animal remains contained therein, were removed. This cemetery having been for ages appropriated to the reception of the dead, in one of the most populous districts of Paris, was eminently well calculated to exhibit the various processes of animal decomposition; another favourable circumstance was, that it contained several of those large pits (fosses communes) in which the bodies of the poor are deposited by hundreds. These pits are cavities 30 feet deep, with an area of 20 feet square, in which the shells containing the bones are closely packed in rows over each other, without any intermediate earth, and with only a slight superficial covering of soil, not more than a foot thick; each pit contained from 1500 to 1500 bodies, and may be considered as a mass of animal matter of the dimensions above-mentioned. M. M. Fourcroy and Thouret were present at the opening of several of these receptacles, and it is from a memoir by the former of these, that the principal part of this article is composed.

The first pit that was examined, had been filled and closed up 15 years before; on opening some of the coffins (for the wood was still quite found, only tinged of a yellow colour) the bodies were found within, thick as to leave a considerable vacant space in the upper part of the coffin, and flattened as if they had been subject to a strong compression; the linen which covered them adhered firmly, and upon being removed, presented to view only irregular mazes of a soft ductile greyish-white matter, apparently intermediate between fat and wax; the bones were enveloped in this, and were found to be very brittle.

The bodies thus changed, being but little offensive to the smell, a great number were dug up and minutely examined: in some this alteration had, as yet, only partially taken place, the remains of muscular fibres being still visible, but where the conversion had been complete, the bones throughout the whole body were found covered with this grey sublimate, generally soft and ductile, sometimes dry, but always readily separating into porous cavernous fragments, without the slightest trace of muscles, membranes, vessels, tendons, or nerves: the ligaments of the articulations had been in like manner changed, the connexion between the bones was destroyed, and these last had become so yielding, that the grave-diggers, in order to remove the bodies more conveniently, rolled each upon itself from head to heels, without any difficulty. The whole contents of the abdominal cavity were wanting, and the muscles and integuments converted as above-mentioned, lay flat on the vertebral column; in like manner the heart and other viscera of the thorax were dissolved, nothing being left but a little white grumous matter. The glandular part of the breast in the female corpores frequently afforded this soapy matter of a homogeneous texture, and a pure white colour: the hair appeared to have undergone no alteration; the brain was not wanting in any, it was superficially of a blackish grey, and had experienced the same change as the integuments. According to the testimony of the grave-diggers, to whom the facts just mentioned had been long familiar, this conversion of animal matter is never observed in those bodies that are interred singly, but always takes place in the fosses communes; to effect this change nearly three years are required. The soapy matter of lateef formation is soft, very ductile, light and fquingy, and contains much water; in 30 or 40 years it becomes much dryer, more brittle, and assumes the appearance of dense laminæ, and where the surrounding earth has been dry through the unifal, it is semitransparent, of a granulated texture, brittle, and bears a considerable resemblance to wax.

Animal matter having once passed into this stage of decomposition, appears to refit for a long time any further alteration: some of these pits that had been closed above 40 years, were upon examination, found to be little else than a solid mass of soapy matter, nor is it yet ascertained how long in common circumstances it would continue unchanged, the burial ground of the Innocents being so small in comparison to the population of the district, as to require each pit in 30 or 40 years to be emptied of its contents, in order to receive a new succession of bodies; it appears, however, that the ulterior changes depend in a great measure on the quantity of moisture draining through the mafs.

From the history of this singular sublimation, we proceed to an examination of its chemical properties. It was first, however, purified by gently heating in an earthen vessel, till it became of a pasty consistence, and then rubbed through a fine hair sieve, by which means the hair, small bones, and remains of the muscular fibre were separated with tolerable exactness. In this state, being exposed in an earthen vessel to the naked fire, it readily became soft, but did not liquify without considerable difficulty, rather fying as a piece of soap would do, and difengaging at the same time ammonical vapours. Four pounds being put into a glass retort, and submitted to slow distillation in a water bath, afforded in the space of three weeks, eight ounces of a clear watery fluid,
fluid, with a festid odour, turning syrup of violets green, and manifestly containing ammonia in solution; the foapy matter remaining in the retort had acquired a greater consistence, was become less fusible, of a deeper brown colour, and upon cooling, was evidently drier than before, though not admitting of being broken.

Two pounds of purified soapy matter were distilled by a very gradual sand heat; after two hours, the matter was melted, and in ebullition, it soon became covered with a blackish froth, and swelled greatly; during 36 hours nothing came over but water with ammonia in solution; at length, after 48 hours, crystals of carbonated ammonia began to line the adopter; these were soon after dissolved by a reddish brown oil, which continued to come over till the experiment was stopped. Hence it appears that the component parts of this substance are water, ammonia, and a concrete oil. No elastic gas was disengaged during the whole process.

In order to ascertain the action of atmospheric air on this substance, several pieces being previously weighed, were exposed to a warm and dry air during a whole summer; they were found by this to have become dry and brittle without being lefthened in their bulk, had acquired a whiter colour, and lost their peculiar odour; their upper surface was become friable, and almost fell into powder under the finger; on subjection to analysis, it was found not only that the water, but a considerable part of the ammonia, had been evaporated by this long exposure, and the remaining oily matter on melting became semitransparent, brittle, and considerably resembling wax.

Some purified soapy matter was rubbed in a glafs mortar with a little water; an immediate mixture took place, and the result was a kind of magnes, or soft uniform paste; by a further addition of water an opaque liquor was produced exactly similar to a solution of soap; like this, it formed a strong liquor, and by the addition of pump-water, acids, lime-water, or metallic salts, it curdled and threw up to the surface a quantity of white infoluble clots. With nitrat of mercury it gave a greyish-yellow precipitate, and the supernatant liquor became of a permanent red-purple. The aqueous solution being thrown on the filter deposited there almost the whole of the oily matter, and the clear liquor by evaporation yielded a little animal mucilage and extract, and a small variable proportion of the phosphates of ammonia and soda.

The combination with boiling water is not more permanent than that with cold, the whole of the oil and ammonia separating on the filter. When instead of fresh soapy matter, some which had been exposed during the summer to the action of the air was made use of, the liquor, though of a foapy appearance and feel, was much less so than what was made with the fresh substance, and upon boiling the mixture a number of brown oily drops rose to the surface, which, on cooling, concreted to a semitransparent matter like wax, perfectly analogous to that obtained from the same by simple melting; hence it appears, that the solubility of the fresh soapy matter depends on the ammonia which it contains, as is also evinced by the perfectly clear solution which the addition of a further quantity of ammonia occasions.

Eight ounces of soapy matter, white and purified, were mixed with an equal weight of powdered quicklime, on the addition of a little water, the mass heated, swelled, and disengaged a very strongly ammoniacal vapour, accompanied by a peculiar putrefcent smell; a sufficiency of water being then added to bring the whole to the state of an emulsion, it was heated to ebullition, much ammoniacal vapour escaping at the same time; the liquor being thrown on a filter, peeled perfectly clear and colourless, and appeared to be only lime-water with a very small quantity of soap in solution; the matter remaining on the filter, being well washed, was beaten up with water, but showed no tendency to unite with it, subsiding after a time in the form of a white mass; this by drying for a few days in the open air, became grey and much reduced in volume; it was then mixed with diluted nitric acid, which immediately decomposed it; and a number of white clots rose to the surface of the liquor. This last being obtained clear by filtration, yielded crystals of muriatic acid and a flight trace of phosphoric salt; the white clots being washed and dried, and afterwards melted in a water bath, cooled into a dry combustible oily matter, brittle, waxy, cryspalline, and perfectly insoluble in water, to which the name of adipocire has been appropriated.

From this series of experiments with lime, it appears that the soapy matter is a true ammoniacal soaf, with a base of adipocire to which lime has a stronger affinity than ammonia, but which last composition is again in its turn decomposed by all the acids, leaving the adipocire in a state of purity.

Pot-ash and soda produce effects perfectly analogous to those of lime.

The action of acids on this soapy matter is to decompose it, by uniting with the ammonia; the concentrated mineral acids, as the nitric and sulphuric, also deepen the colour of the adipocire, by the evolution of part of its carbonaceous bafe.

Pure alcohol at the ordinary atmospheric temperature has no action on the soapy matter, but when boiling, it will with ease diffuse one fourth of its weight, of which all the ammoniacal soaf will be deposited by cooling, and that portion of adipocire which is uncombined with ammonia, will be held in permanent solution. Hence alcohol is perhaps the best agent that can be used in the decomposition of the soapy matter; the phosporic salts contained in it are not soluble in alcohol; the ammoniacal soaf is wholly decomposed by cooling, and the uncombined adipocire may be obtained afterwards by evaporating off the alcohol.

The most effectual way of procuring perfectly pure adipocire, is to mix well the soapy matter with twelve times its weight of warm water, and to decompose it by adding a slight excess of acetic or muriatic acid. This concrete animal oil thus prepared, as long as it holds much water between its particles, is of a pure white; by drying it acquires a brownish grey colour, which neither exposure to the air, nor the oxymuriatic acid will remove; whilst it retains water it is soft to the touch, and becomes ductile like wax by the warmth of the hand; when well dried and deprived of water, it affumes by slow conglutiation, a lamellar and crystalline texture, but when cooled quickly, has a compact granular appearance; in the flat of these plates, it greatly resembles sphenaceti, yet differs from it in the following particulars. It requires a less heat for its fusion by seven degrees of Fahrenheit; it is soluble in boiling alcohol in the proportion of one ounce and a half, to one ounce of the fluid, whereas the same quantity of alcohol at the same temperature, will scarcely take up more than 36 grains of sphenaceti; it separates also in cooling from this menstruum, in a much less decided crystalline form than sphenaceti does; it unites eagerly with liquid ammonia in the cold, which sphenaceti does not in the smallest degree.

To the foregoing experiments of Fourcroy, a few facts have since been added by Dr. Gibbes. The receptacle at Oxford for those bodies which have been used by the anatomical professor there for his demonstrations, is a hole dug in the ground to the depth of thirteen or fourteen feet, and a little stream is turned through it in order to remove all offensive smell; the flesh contained in this was found, on examination,
examination, to be quite white, and for the most part charged into the foapy matter above mentioned. From this hint, pieces of lean beef were included in a perforated box, and placed in running water, and at the end of a month were found converted into a mass of fatty matter; this change was observed to take place much sooner and more completely in running than in stagnant water: in order to get rid of the feculent smell, nitrous acid was had recourse to, which immediately had the desired effect: a foamy smell was perceived, and by melting the matter it was obtained nearly pure; the yellow colour which had been given to it by the nitrous acid, was wholly discharged by the oxymuriatic acid. A similar conversion of mucilaginous fibre takes place by maceration in very diluted nitrous acid. Dr. Gibbs has not mentioned whether the fatty matter produced by running water is pure adipocere or ammoniacal soap; it appears probable, however, that it is in the former state; where nitrous acid is the menstruum employed, it is obviously impossible that the adipocere should be combined with an alkali.

Adiphosus, fat or fatty, is a word chiefly used in anatomy, as an epithet of certain cells, ducts, membranes, and vesicles; e.g. Membrana and Vasa adiposae, Cellula adiposa, Duc tus adiposus, &c.

Adippe, in Entomology, a species of Papilio, with dentated yellow wings, spotted with black, and underneath marked with 23 silvery spots. This insect is found in Europe, and is called by some writers Gymnpe.

Adipsia, formed of praev. and n. thist, denoting a want of thirst, in NephoLOGY, a genus of diffuse, Dr. Cullen refers to the second order, called Dysoxiria, and the fourth class denominated locates. This he reckons to be always symptomatic of some distemper affecting the seniourium commin.

Adipson, a name given by Hippocrates to Ozymel; who says also, that the pitifann, by its glutinousness, prevents or cures thirst. Medicines administered for allaying thirst are called by this name. This property led the Greeks to diluting the glycyrrhiza glabra of Linnaeus, or liquorice, by this appellation.

Adiposus, signifies the Egyptian palm-tree, liquorice, and a pill or catapatic, composed by Asclepiades, and mentioned by Galen.

Adiratus, a price or value set upon things stolen or lost, as a recompense to the owner.

Adiris, or Dyris, in Ancient Geography, a name given to the mountains of Atlas by the Indigenes, or first inhabitants. Bochart affirms (Geog. Sac. l. ii. c. 13. Oper. tom. i. p. 89.) that Atlas was called Duris and Dyris, by the Phenicians; and this name might probably be derived from gr. adris, which signifies great or mighty.

Adisa, a town of India, placed by Ptolemy in long. 150° 30'. and lat. 23°

Adisalem, a town of Gojan in Abyssinia, between the Nile and the lake Dembea. E. long. 34° 50'. N. lat. 10° 30'.

Adisamum, a town of the island of Taprobana.

Adisathra, a town of India, on this side of the Gabes, which Ptolemy places in long. 120° 30'. and lat. 24° 30'.

The Adisathri, who inhabited the surrounding country, had for their metropolis Sagida.

Adisathrus Moris, a mountain of India, near the gulf of Bengal, which Ptolemy called the Gangetic gulf: long. 132°, lat. 23°.

Aditus, Aditus, formed from adi, to go to, in a general sense, denotes the approach to, or entrance of any thing: in which sense we meet with adit of a hovel, adit of a theatre, or a circus, &c.

Adit of a mine, the hole or aperture, whereby it is entered and dug, and by which the water and ores are carried away.

Adit of a mine, is nearly the same with curriculus, or drift, and is distinguished from air-shafts. Phil. Trans. No. 69.

The adit is usually made on the side of a hill, towards the bottom thereof, about 3, 5, or 6 feet high, and wide, in form of an arch; sometimes cut in the rock, and sometimes supported with timber, so conducted, as that the fole or bottom of the adit may answer to the bottom of the shaft, only somewhat lower, that the water may have a sufficient current to pass away without the use of the pump.

Damps and the impurity of the air are the great impediments against driving adit's above 20 or 30 fathoms, by reason of the necessity, in this case, of letting down of air-shafts from the day to meet the adit, which are very often expensive, both on account of the great depth of mines, and the hardfnes of the mineral strata to be cut through. The best remedy against this is that practiced in the coal-mines near Liege, where they work their adits without airshafts: the manner of which is described by Sir Robert Moray. Vide Phil. Trans. No. 5.

Adit of a mine, is sometimes used for the air-shaft itself, being a hole driven perpendicularly from the surface of the earth into some part of a mine, to give entrance to the air. In this sense we sometimes find it improperly written adit. Phil. Trans. No. 200.

To draw off the standing water in winter, in deep mines, they drive up an adit, or air-shaft, upon which the air diffagageth itself from the water, when it begins to run with such violence, as produces a noise equal to the burbling of a cannon, dashes every thing in the way against the sides of the mine, and loosens the very rocks at a distance. Ibid. No. 26. See Mining.

Adit in ships, in Antiquity, was a space in the upper part, where the ship was widest, at which people entered, anciently called aza.

Adits of a theatre, aditus theatris, in Antiquity, were doors on the flairs, whereby persons entered from the outer porticoes, and descended into the seats.

Adites, or the tribe of An, in Ancient History, a very powerful tribe of the ancient Arabs, are said to have been the descendants of Ad, the son of Avas, or Uz (Gen. x. 22, 23), the son of Aram, the son of Shem, the son of Noah, and, after the confusion of tongues, to have settled in Al Ahfak, or the winding lands, in the province of Hadramaut, where they greatly multiplied. In process of time, they abandoned the worship of the true God, and fell into idolatry; chiefly worshipping four deities, viz. Sakia, Hadeila, Razeka, and Salama; the first of whom, as they imagined, supplied them with rain, the second preferred them from all dangers abroad, the third provided food for their sustenance, and the fourth relieved them to health when afflicted with sickness, as their several names import. God, it is said, commissioned the prophet Hud, or Heber, to attempt their reformation: but they were obstinate and irremediable, and were therefore destroyed, a few of them excepted, by a suffocating wind. Those who escaped retired with Hud to another place. Before they were thus severely punished, they were visited with a drought of four years, by which their cattle perished, and they themselves were reduced to great distress. They are often mentioned in
in the Koran, and some commentators on this work pretend, that they were of prodigious stature, the largest being 100 cubits high, and the least 60; for which they refer to the testimony of the Koran. Sale’s Prelim. Disc. p. 6. Koran, chap. 7. p. 123.

ADITHA, or ADITHAM, in Ancient Geography, a city belonging to the tribe of Judah. Joshua, xv. 36. Euseb. mentions two cities named Adatha, one towards Gaza, and another towards Lydda, east of this city.

ADJUDICATING, in Law, the act of passing a determinate sentence in behalf of a person.

ADJUDICATION, the act of adjudging the property of a thing to a person by a legal sentence, decree, or judgment.

Adjudication is more particularly used for the addition, or conferring a thing fold by auction, or the like, to the highest bidder.

Adjudication, in the Scots Law, the name of an action by which a creditor attaches the heritable estate of his debtor, or his creditor’s heir, in order to appropriate it to himself, either in payment or in security of his debt; or that action by which the holder of a heritable right, labouring under any defect in point of form, may supply the defect. Adjudications were substituted by act 1672. c. 19. in the place of appraisings, and they are carried on by way of action before the Court of Seftion. By that statute, the debtor must deliver to the creditor a valid right of the lands to be adjudged, being such as are equivalent to the principal and interest of the debt, and a fifth part more in consideration of the creditor’s taking land for his money; recouping the possession in his favour, and ratifying the decree of adjudication. This is called a special adjudication: and the time within which the debtor may redeem is declared to be five years; but if the debtor does not produce a sufficient right to the land, or is not willing to reconvey the possession and ratify the decree, it is lawful for the creditor to adjudge all right belonging to the debtor in the same manner as he could, by the former laws, have apprised it. In this general adjudication, as it is called, the creditor must limit his claim to the principal sum, interest and penalty, without demanding a fifth part more. Abbreviations are ordained to be made of all adjudications, which must be recorded within 60 days after the date of the decree. There are two kinds of adjudications, viz. those on a decree cognizantium causa, otherwise called contra hereditatem jacentem, and adjudications in implement. A new sort of adjudications has been lately introduced into the law of Scotland, by 23 Geo. III. for rendering the payment of the creditors of insolvent debtors more equal and expeditious.

ADIVE, in Zoology, an animal of the Jackal kind, the Canis aureus of Linnaeus, mentioned by Buffon, somewhat resembling a small fox. It is less than the common jackal, and is sometimes tamed, and kept in a domestic state. In the Arabic language, the name Adive signifies a wolf; and its figure, hair, and voracity are analogous to the name; but it is smaller than the fox, and very stupid. It yelps like this animal; and when one cries, the rest reply. It roams about in the night in search of food, and is naturally disposed to conceal itself in the day. The adives form large packs, enter houses and churches, where they devour every thing they can find, and when they have been once accustomed to eat human bodies, they never fail to frequent church-yards in search of putrid carcases, to dig into graves, to follow armies, and to attend the caravans in those eastern countries where they abound. The adives may be considered as the ravens among quadrupeds.

ADJUNCT, ADJUNCTUM, in Philosophy, something joined or superadded to a being from without; or an accession to a thing, not essentially belonging to it, but only accidental to it.

There are two kinds of adjuncts: the one a substance (e. g. spirit or body) accidentally superadded to another, as its subject. Such is water in a sponge, or vessel, and such is the soul in the body. The second an attribute or mode, accidentally likewise superadded to a substance, whether body or spirit. Such is figure in a body, knowledge in the mind, &c.

In ethics, they usually reckon seven adjuncts, popularly called circumstances; quis, quid, ubi, quibus auxilium, cur, quandomo, quando.

ADJUNCT, in Music, a word that is used to express the connection or relation between the principal mode, and the modes of its two-fifths, which, from the intervals that constitute the relation between them and it, are called its adjuncts.

ADJUNCTS, in Rhetoric and Grammar, are certain words or things added to others; to amplify the discourse, or augment its force.

Such are adjectives, attributes, and epithets, which are added to substantives, subjects, &c. to express their nature, qualities, accidents, &c.

Arguments drawn from adjuncts, are supplements or enforcements of the proof arising from the circumstancies of the fact.

ADJUNCT is also used in civil concerns, for a colleague, or fellow-officer, associated to another, to assist him in his ministry.

ADJUNCT gods, or Adjoints of the gods, in Mythology, among the Romans, were a kind of inferior deities, added as auxiliaries to the principal ones, to ease them in their function. Thus, to Mars was adjointed Bellona and Numa; to Neptune, Salacia; to Veleus, the Cabiri; to the Good Genius, the Lores; to the Evil, the Lemures, &c.

ADJUNCTS, or Adjoints, in the Royal Academy of Sciences at Paris, denote a class of members attached to the pursuits of particular sciences. See Academy.

ADJUNCTION, the act of joining, or adding, of one thing to another. There are various species of adjunction; viz. by adhesion, opposition, adjacency, conjunction, inclusions, &c.

AD JURA REGIS, is a writ that lies for the king’s clerk, against him who endeavoured to eject him, to the prejudice of the king’s title in right of his crown.

ADJURATION, a part of exorcism, wherein the devil is commanded, in the name of God, to depart out of the body of the possessed, or to declare something.

ADJUTAGE. See Adjutage.

ADJUTANT, formed of adjutare, to assist, in the Military Arts, an officer in the army, whose business is to assist the major: otherwise called aid-major.

In the cavalry each regiment has an adjutant, and in the infantry, each battalion, who receives the orders every night from the brigade-major, which, after he has carried to the colonel, he delivers out to the serjeants. When detachments are to be made, he gives the number each company must furnish, and assigns the hour and place of rendezvous. He also furnishes the guards, receives and distributes ammunition to the companies, and by the major’s orders regulates the price of bread, beer, &c. See Adjutant-General.

ADJUTANT is sometimes also used by the French for an aid-de-camp.

ADJUTANTS-General, among the Troops, a select number of officers residing with the general of the order, each of whom had a province, or country, under his care, as is
France, England, &c. Their business was to inform the father-general of the occurrences of state in such countries; to which end, each of them had their correspondents, delegated emissaries, visitors, regents, provincials, &c. See Jesuits:

ADJUTOR, among the Romans, was an adjutant or assistant; and under this appellation they had many subordinate officers, who acted in the absence of their superiors, or by way of aiding them in the execution of their respective offices.

ADJUTORIUM, from adjutare, to help, in Anatomy, the humerus, or shoulder-bone.

Some authors use this word for a medicine intended only as auxiliary, or subservient to another of great efficacy: in particular, after a due use of internals, for an external remedy applied to a part afflicted, to affit in, and complete the cure.

ADJUTRIX, prima legis, an appellation applied to a woman which often occurs in the Roman laws.

ADJUVANTIA, formed of adjure, I help, in Medicine. See Juvantia.

ADLE egg, that which is not fecundified by the cock's tread.

Adle eggs is the name with that which is otherwise called a saltventous one.

Adle eggs, after incubation, are found to contain a shapeless, globule, ash-coloured body, not unlike a mola. Phil. Trans. N° 87.

ADLECT, among the Romans, signified associates, or rather selected, and was applied to persons of various descriptions amongst the common soldiers, officers of state, and senators; there were gods of this denomination, who were deified men, and called by the Romans "di minorum gentium."

ADLEGATION, in the Public Law of the German empire, a right claimed by the states of the empire of adjoining plebiscitaries, in public treaties and negotiations, to the throne of the emperor, for the transacting of matters which relate to the empire in general.

In which sense adlegation differs from legation, which is the right of sending ambassadors on a person's own account.

Several princes and states of the empire enjoy the right of legation, who have not that of adlegation, and vice versa. The bishops, for instance, have the right of adlegation in the treaties which concern the common interest, but no right of legation for their own private affairs. The like had the duke of Mantua.

The emperor allows the princes of Germany the privilege of legation, but disputes that of adlegation. They challenge it as belonging to them jure regi, which they enjoy in common with the emperor himself. Ludwig has a difficult on the subject, wherein the controversy is treated at large.

ADLENTARE tartam, in Antiquity, a phrase which denoted the care that was taken every day to comb the beard, and to render it soft and flexible.

ADLERFELDT, Gustavus, in Biography, a Swedish officer and historian, was born near Stockholm, studied at Upsal, where he was distinguished by his application and improvement, and then made the tour of Europe. On his return, Charles XI appointed him a gentleman of his chamber. Having accompanied this monarch in his military course, and witnessed both his victories and defeats, he was qualified to compile his history, which terminates with the day of his death, at the battle of Pultawa, in 1709, and which was translated into French by his son, and printed in four volumes 12mo. at Amsterdam, in 1740.

ADLESBERG, in Geography, a well built market-town in the inner Carniola, in Austria, situate at the foot of a high rocky mountain, near the river Alben, on which stands a citadel, under which is a grotto of very considerable extent and capacity. Many curious figures of stones, natural stone theatres, stone bridges, &c. are to be seen in it; and near the entrance of the cavern the river Poig, which, at about a mile's distance from it, issues out of a mountain, runs into an aperture in the rock, and then glides off under the cavern.

Adlesberg, is called in Latin Poiffena. It is a four leagues south-east from Trieste.

ADLOCUTION, Adlocutio, in Antiquity, is chiefly understood of speeches made by Roman generals to their armies, to encourage them before a battle. We frequently find these adlocutions expressed on medals, by the abbreviature ADLOCVT. COI.

The general is sometimes represented as placed on a tribunal; often on a bank or mound of turf, with the cohorts ranged orderly round him, in manipuli and turmae. The usual formula in adlocutions was, fortis effe ac fedus. Picti. Lex. Ant. tom. I. p. 27. Walk. on Coin. p. i. c. 10.

ADLWANG, in Geography, a town in the archduchy of Austria, three leagues south-west of Steyr.

ADLZREITER, John, in Biography, chancellor of Bavaria, an historian and lawyer, flourished in the 17th century. His annals of Bavaria, written in Latin, comprehend the history of the country from its beginning, to the year 1652, compiled from authentic sources. This work first appeared in 1662, and was reprinted at Leipzig in 1710, by Leibnitz, in folio.

ADMAH or Adam, in Scripture Geography, one of the cities involved in the destruction of Sodom and Gomorrah. It was situated between Zoabim and Gomorrah. Gen. x. 19. xiv. 2—8. Deut. xxiii. 23; Hoes. xi. 8.


In which sense, admanuentes amount to the same with lawyers, and stand opposed to clerks, who were forbid to swear on the book, their word being to be reputed as their oath: whence they were also denominated fidis digni.

ADMEASUREMENT, Admensuratio, in Law, a writ which lies for the bringing those to reason, or mediocrity, who usurp more of any thing than their share. This writ lies in two cases; termed,

Admeasurement of Dover, Admenuratio dotis, where the widow of the deceased holds more from the heir, or his guardian, on account of her dower, than of right belongs to her. And,

Admeasurement of pastures, Admenuratio pasturis; this lies between those who have common of pastures appendant to their frehold, or common by vicinage, in case any of them furcharge the common with more cattle than they ought.

This is one of those writs that are called vicontial, being directed to the sheriff (vice-comit), and not to be returned to any superior court, till finally executed by him. It recites a complaint, that the defendant hath furcharged the common, and therefore commands the sheriff to admonish and appertain it, that the defendant may not have more than belongs to him, and that the plaintiff may have his rightful share. Upon this suit, all the commoners shall be admonished, those who have not, as well as those who have furcharged the common; the plaintiff as well as the defendant.

The execution of this writ must be by a jury of 12 men, who were upon oath to ascertain, under the superintendence of
the sheriff, what and how many cattle each commoner is entitled to feed: and the rule for this accommodation is generally understood to be, that the commoner shall not turn more cattle upon the common, than are sufficient to manure and stock the land to which his right of common is annexed. If, after the accommodation has ascertainment the right, the same defendant forcharges the common again, the plaintiff may have a writ of sequestration. Blackli. Com. vol. iii. p. 278. 8vo.

ADMITE, one of the nymphs called Oceanides.

ADMINICULE, or Adminicule, Adminiculum, a term used in some ancient statutes, for aid, help, or support. Stat. 1 Edw. IV. cap. 1.

In Scots law, this term signifies any writing or deed referred to by a party, in an action of law, for proving his allegations.

ADMINICULATOR, in Ecclesiastical Writers, denotes an ancient officer of the church, whose business was to defend the cause of widows, orphans, or others delinquent of help. The adminiculator is the same with what is otherwise called advocate of the poor. Du Cange.

ADMINICULES, among Antiquaries, are applied to the attributes or ornaments wherein Juno and some other figures are represented on medals.

ADMINICULUM, in the French Jurisprudence, signifies the beginning of a proof; an imperfect proof; or a circumstance or conjecture, tending to form or fortify a proof.

ADMINISTRATION imports the government or direction of affairs; and particularly the exercise of distributive justice.

The two criteria of a good administration in England, according to Trenchard, are, the keeping the nation out of foreign broils, and paying off the public debts; the latter of which depends on the former.

Administration, in the English Law, signifies the act or office of an administrator, in managing and disposing of a man’s goods, or estate, that died intestate, or without any will; with an intent to give an account thereof. In this case, instruments, or powers, called letters of administration, are taken out in the prerogative court.

These letters must be granted by the ordinary in pursuance of the statutes 31 Edw. III. c. 11, and 21 Hen. VIII. c. 5. 1. to the husband, or his representatives, of the wife’s goods and chattels; 2. to the wife, of the husband’s goods and chattels; 3. if there be no husband or wife, to the children, sons or daughters; 4. if there be no children alive, to the father or mother; 5. then to a brother or sister of the whole blood, or of the half blood (who, for this purpose, are of equal degree with the whole blood); 6. and if there be none such, to the next of kin, as grandfather, grandmother, uncle, nephew or cousin, and the females of each class respectively; but of persons in equal degree, the ordinary may take which he pleases, and the nearest of degree shall be thus reckoned according to the computation of the civil law, and not of the common law; 7. then, if none of the kindred take out administration, to a creditor of the deceased; 8. if the executor refuses or dies intestate, to the residuary legatee, in exclusion of the next of kin; 9. and for want of all these, to any other person, at the discretion of the ordinary; or the ordinary may grant to a stranger letters ad colligendum bona definiti, to gather up the goods of the deceased; or may take them into his own hands to pay the deceased’s debts, in such order as an executor or administrator ought to pay them. But it is said he or the stranger, who hath letters ad colligendum, cannot sell them, without making themselves executors of their own wrong, and action lies only against the ordinary, &c. Wood’s Inst. 323.

By Stat. 21 Hen. VIII. widows, and next of kin, are to be appointed administrators, and a mother is to have administration of goods of a child, before a brother or sister, &c. But an administration may be granted to the father before the widow; and a residuary legatee ought to be preferred before the widow, in an administration cum testamento annexo. 3 Salk. 21.

On granting administration, bonds with forfeits are to be taken for the administrator, to make and exhibit an inventory of the goods of the deceased, to render a full account thereof, and to make a distribution of the surplusage after the debts paid, according to law, &c. Stat. 22 and 23. Est. II. cap. 10. Sec ADMINISTRATOR, Executor, InTESTATE, Kindred.

Administration is sometimes also used for the direction of the affairs of a minor, a pupil, a lunatic, or the like.

Administration is also used in respect of ecclesiastical functions.—The parson has the administration of the funds in his parish.—Administration of the enfeild is prohibited to perons excommunicate.

In beneficary matters they distingiuish two kinds of administration: temporal, which relates to the temporaries of a benefice, diocese, &c. and spiritual, to which belong the power of excommunicating, &c.

Administration, in Anatomy, is used for the manner of disfigcting the parts of the body, particularly the muscles. In which sense, administration is synonymous with cauteries, excises, &c.

Anatomical administrations are not to be learned by oral precept, but require ocular inspection.—Galen, Harvey, and others, have discourses express under the title of the anatomical administrations.

Administration, in Commerce, is also used for a Spanish staple at Callao in Peru, a small town on the coasts of the South Sea, which is the port of Lima; where all ships, allowed to trade on the coast, are obliged to unload their European goods, and pay certain duties: i.e. 13 per cent. of the piece for which they are sold, if the cargo be entire; and if otherwise 16 per cent. besides which, they pay three per 1000 duty, for consulship, and some other small royal rights and claims.

ADMINISTRATOR, in Law, he to whom the ordinary commits the administration of the goods of a person deceased, in default of an executor.

An action lies for or against an administrator, as for or against an executor; and he shall be accountable to the value of the goods of the deceased, and no farther: unless there be wafe, or other public chargeable on him. If the administrator die, his executors are not administrators; but the court is to grant a new administration.—If a stranger, who is neither administrator, nor executor, take the goods of the deceased, and administer, he shall be charged, and sued as an executor, not as an administrator.

The origin of administrators is derived from the civil law. By the old law, the king was intitled to seize upon the goods of an intestate, as the pares patriae and general truftees of the kingdom. This prerogative the king continued to exercise for some time, by his own ministers of justice, probably in the county court; and it was granted as a franchise to many lords of manors, and others, who have to this day a precriptive right to grant administration to their intestate tenants and suitors, in their own courts baron, and other courts, or to have their wills there proved, in case they made any disposition. Afterwards the crown, in favour of the church, invested the prelates with this branch of the

prerogative.
Innocent IV. in 1250, lays it down for established canon law, that "in Britannia terita pari honorum decemcentum ab intestato in opus eclesiæ et pauperum dispensanda eis." The popinax clergy therefore took to themselves, under the name of the church and poor, the whole residue of the estate of the deceased, after the partes racionabiles, or two-thirds, of the wife and children were deducted, without paying his lawful debts or other charges thereon. For this reason it was enacted, as the first check on the exorbitant power of ordinaries, by the late of Walsm. 2. 13 Edw. I. c. 19, that the ordinary shall be bound to pay the debts of the intestate so far as his goods will extend. And in order to prevent the ordinaries from keeping any longer the administrators in their own hands, the statute 31 Edw. III. c. 11, provides that, in case of intestacy, the ordinary shall depute the nearest and most lawful friends of the deceased to administer his goods; which administrators are put upon the same footing with regard to suits and to accounting, as executors appointed by will. This is the original of administrators, as they at present stand, who are only the officers of the ordinary, appointed by him in pursuance of this statute. The statute 21 Hen. VIII. c. 5, enlarges a little more the power of the ecclesiastical judge, and permits him to grant administration either to the widow, or the next of kin, or to both of them, at his own discretion; and where two or more persons are in the same degree of kindred, gives the ordinary his election to accept which ever he pleases.

There are divers sorts of administrators.

Administrator durante minoris aetate, is where an infant is entitled to administration of the goods of an intestate; in which case administration is granted to another, until he is of the age of twenty-one years. Though where the infant is made executor, such administration, during his minority, ceases at his coming of the age of seventeen: 5 Rep. 27.

Administrator cum testamento annexo, is one to whom administration, with the will annexed, is granted upon an executor's refusal to prove the testament, or upon his dying before the probate. 1 Inst. 117.

Administrator de bonis non, &c. is one to whom administration is granted of the goods of a testator remaining unadministered, by reason of his executors dying intestate. This administrator is the only legal representative of the deceased in matters of personal property. But he may, as well as an original administrator, have only a limited or special administration committed to his care, viz. of certain specific effects, such as a term of years, or the like: the reversion being committed to others. 1 Roll. Abr. 908. 2 Roll. Abr. 907. There is also Administrator pendente lite; and durante absentia extra regnum.

If a woman have goods thus committed to her charge, or administration, she is called administratrix; and is accountable, &c. in like manner as an administrator.

Administrator, in Scots Law, a person legally empowered to act for another, whom the law presumes incapable of acting for himself. Thus tutors or curators are sometimes styled administrators in law, to pupils, minors, or fatuous persons. But more generally the term is used to imply that power which is conferred by the law upon a father, over the persons and estates of his children during their minority.

Administrator is also used for the advocate of a church.

Administrator is also used for a person appointed to receive, manage, and distribute the revenues of an hospital, or religious house.

Administrator is also used for a prince who enjoys the revenue of a secularized bishopric.

Yet this title does not hold universally: the king of England, as elector of Brunswick-Luneburgh, for instance, is not called administrator, but duke of Bremen and Verden; and the king of Prussia is not administrator, but duke of Magdeburg, and prince of Halberstadt.

Administrator is also used for the regent or protector of a kingdom, during the minority of its proper prince, or even a vacancy of the throne.

The pope pretends to the administration of the empire, during the vacancy, by censure, or interposition.

Administrator is sometimes used for the president of a province.

ADMINISTRATRIX, see Administrator.

ADMIRAL, a great officer who commands the naval forces of a kingdom or state, and takes cognizance by himself, or officers appointed by him, of all maritime causes.

Authors are divided about the origin and denomination of this important officer, whom we find established, with some variation, in most kingdoms that border on the sea. Spelman conceives, that the name and dignity were introduced among us from the Saracens, by means of the Crusades; and it is alleged, that there are no instances of admirals in this part of Europe before the year 1284, or 1286, when Philip of France, who had attended St. Louis in the wars against the Saracens, created an admiral. The name of this officer once occurs in the history of France, in the year 558. And. Com. vol. i. p. 29. Du-Cange affirms us, that the Sicilians were the first, and the Genoese the next after them, who gave the denomination admiral to the commanders of their naval armaments; and that they took it from the Saracen, or Arabic amin, or amir, a general name for any commanding officer.—Some say, that the first admiral mentioned in English history was in the reign of Edward I. in 1297; and that the first title of admiral of England conferred upon a subject, was given by patent of Rich. II. to the earl of Arundel and Surrey in 1387.

Spelman, however, is of opinion, that the title of admiral was first used in the reign of Henry III, because it does not occur in the laws of Oleron, enacted in 1266, nor is mentioned by Bracton, who wrote about that time; and in a charter, 8 Henry III. which granted the office to Richard de Lacy, the title is not used; but in the 56th year of the same reign, the historians used the appellation admiral, and it is found also in charters.

Three or four admirals were formerly appointed in the English seas; these held their office durante bene placito, and had particular limits from the mouth of the Thames, to the north, south, or west, subject to their jurisdiction. We had also admirals of the Cinque Ports as early as the reign of Edward III., when William Latimer was called Admirals quisque portum. But the title of Admiralis Anglie was not frequent till the reign of Henry IV., when the title was given to the king's brother; and after this period it was granted in all commissions to succeeding admirals.

The
ADM

The title of locum-tentens regis super maris, the king's lieutenant-general of the sea, mentioned in the reign of Richard II: was superior to that of admiral of England. Before the appellation of admiral was introduced, the title of cyclus maris was in use.

Admiral of England, the lord high, in some ancient records called capitaneum maritimarum, is judge, or president, of the court of admiralty.

He takes cognizance, by himself, his lieutenant, or deputies, &c. in his court, of all crimes committed on the sea, or the coast thereof; and all the civil and marine transactions relating thereto; as also of what is done in all great ships, riding in any great river, beneath the bridges thereof next the sea.

Anciently, the admiral had also jurisdiction in all causes of merchants and mariners: not only on the sea, but in all foreign parts. To this great officer also belongs the government of the navy: by him all vice-admirals, rear-admirals, and sea-captains are commissioned; as well as all deputies for particular coasts, and Corners for viewing dead bodies found on the sea-coasts, or at sea; and he appoints the judges for his court of admiralty, and courts martial for the trial of offenses against the articles of war, and may imprison, release, &c. every commander, officer, and soldier of ships of war shall observe the commands of the admiral, &c. on pain of death, or other punishment. Between high and low-water mark, the common law and admiralty bear jurisdiction by turns; one upon the water, and the other upon the land. He hath also power not only over the seamen serving in his ships of war, but over other seamen, so that he may arrest them for the service of the state; and if any of them run away without leave, he may certify it to the sheriffs, mayors, bailiffs, &c. who shall cause them to be apprehended and imprisoned. The admiral, of right, had anciently a tenth part of all prize goods; but this is taken away by lat. 13 Geo. II. c. 4. See Prize. This statute also enables the admiral to grant Letters of Marque.

We have had no high admiral for some years; the office being put in commission, or under the administration of the lords commissioners of the admiralty, who, by W. and M. lat. ii. c. 2, are declared to have the same authority, jurisdiction and power, as the lord high admiral.

Admiral of Scotland, the lord high, one of the great officers of the crown, and Supreme judge in all maritime cases within that part of Britain. Admiral is also used for the commander in chief of a single fleet, at squadron; and is distinguished by a flag displayed at his main-top-mast-head.

Thus, we say, the admiral of the red; the admiral of the white; and admiral of the blue. See Navy and Squadron.

The term admiral is also applied to all flag officers; in which sense it includes vice-admirals and rear-admirals.

Admiral, Rear, is the admiral of the third, and latt squadron of the royal fleet, and carries his flag at the mizen-top-mast-head.

Admiral, Vice, is one of the three principal officers of the royal navy; who commands the second squadron, and has his flag set up at the fore-top-mast-head.

Admiral, Vice, is also an officer appointed by the lord high admiral, in divers parts of the kingdom, with judges and marshall subordinate to him; for the exercising of jurisdiction in maritime affairs, within his respective limits. From their decisions and sentences, appeal lies to the court of admiralty in London.

There are also admirals of the galleys, or cross-bow-men. See Arbaleet.

ADM

Admiral is likewise the name of a principal vessel of a fleet of merchantmen, or of the vessels employed in the cod and whale fishery. That which arrives first, in any harbour or creek of Newfoundland, takes the title and quality of admiral, which it retains during the whole fishing-season. Such ship may secure to herself, so much breach, or flake, or both, as are necessary for the number of boats the ship has, with an overplus of one boat only more than the other.

The master of the steam ship is vice-admiral; and the master of the third, rear-admiral. See Fishery.

Admiral's Court, or the High Court of Admiralty. See Court of Admiralty.

Admiral, in zoology, the name given by authors to a very beautiful, and very precious shell which some refer to the oysters, and others to the cups. See Tal. of Shells.

Of these, the curious reckon several species, or rather varieties, of which the following have been particularly noticed:

1. The grand-admiral. 2. The vice-admiral. 3. The orange-admiral. 4. The extra-admiral.

The first of these is the most esteemed, and a single shell has been sold, in Holland, for five hundred florins. It is of a very elegant and bright white enamel, and is variegated with bands of yellow, representing in some degree the colours of the flags of a man of war at sea; hence it obtained its name. It is of a very curious shape, and formed with particular elegance about the head; the escutcheon being excised. There runs along the centre of the large yellow band in this shell a fine denticulated line, which is its distinguishing character.

The vice-admiral is an elegant shell, but its head is less beautifully wrought than in the admiral, and its broad band wants the dentellated line, so remarkable in that.

The orange-admiral has more yellow than either of the others.

The extra-admiral has the same bands with these, but they run one into another, and form a more mixed coloring.

Admiral's Cove, in Geography, lies within the harbour of Formosa, on the east side of Newfoundland island, about seven or eight leagues from Cape Race. It is on the starboard side of the harbour, and more westerly than Clear's Cove. It has from seven to eight fathoms water, with good anchorage, and well secured.

Admiral's, Vice, Cove, is within the same harbour of Formosa, on the larboard side; where a fleet may ride in good ground, and land-locked from all winds. There is another cove on the same side farther west, with an excellent harbour for large ships. Malham's Nav. Gaz.

Admiralty Court, or Court of. See Court.

Admiralty Bay, in Geography, is a bay that lies in the southern island of New Zealand, on the west coast of Cook's Straits, and to the north-west of Queen Charlotte's Sound, near the western entrance of those straits. Cape Stephens on the north-west, and Cape Jackson on the south-east, are its limits. It is very tedious and has, in many parts, good anchorage. The Admiralty Islands, which lie off in the S.W., at some distance from the entrance, will point out the bay. It may also be distinguished by an island two miles northeast of Cape Stephens, in S. lat. 40° 37', and E. long. 174° 54'. Wood and water are easily obtained in many parts of the bay.

Admiralty Bay, is a name given by Mr. Dixon to Beering's Bay.

Admiralty Bay, and Port Mulgrave, on the north-west coast of America, lie in N. lat. 59° 31', and W. long. 140° 18'.

Admiralty Inlet, a name given by Mr. Vancouver to the supposed strait of Juan de Fuca, on the west coast of New Georgia; the entrance of which is about 48° 30' N. lat. and
and 124° 15' W. long. On each point of the harbour, called by Mr. Vancouver Peary's Cove, was a deserted village, in which were found several sepulchres in the form of cemeteries, containing small skeletons, and small bones, which were supposed to be intended by the inhabitants for pointing their arrows, spears, and other weapons. The surrounding country for several miles presented a delightful prospect of spacious meadows, adorned with clumps of trees, of which the oak, in five from four to six feet in circumference, was the principal. The meadows were well stocked with deer. The soil consisted chiefly of a rich black vegetable mould, lying on a sandy or clayey substratum; the grass grew to the height of about three feet, and the ferns were nearly twice as high. The natural productions of the country were luxuriant; and it was not ill supplied with streams of water. The number of its inhabitants were estimated at about 600. Here, on June 4th, 1792, Mr. Vancouver took possession of the coast from that part of New Albion, which lies in N. lat. 30° 20', and W. long. 123° 34' to the entrance of this inlet of the sea, together with the coast, islands, &c. This interior sea was called the Gulf of Georgia; and the continent binding the said gulf, and extending S. to N. lat. 45°, was called New Georgia, in honour of his present Majesty. This branch of Admiralty inlet obtained the name of Passage Sound; its western arm was designated Port Gardner, out of respect to Sir Alan Gardner, and its smaller or eastern one was called Port Sajan. Vancouver's Voyage, vol. i. p. 287, &c.

Admiralty Island, an island so called by Mr. Vancouver, situated within George the Third's archipelago, on the north-west coast of new Norfolk in America, and between N. lat. 57° and 58°, 30', and W. long. 134° and 135°. This island is about 60 leagues in circuit, affords many convenient bays, with fine streams of fresh water, and produces an uninterrupted forest of very fine timber-trees, chiefly of the pine tribe. Vanêt. Voyage, vol. iii. p. 277.

Admiralty's Island, an island that lies on the coast of Nova Zembla, in the northern ocean. N. lat. 75°, 5', E. long. 52°, 45'.

Admiralty Islands, a cluster of between 20 and 30 islands lying to the north of New Britain, in about 2°, 18' S. lat. and 146°, 41' E. long. The largest of these is 18 leagues in length from east to west. These islands were discovered by captain Carteret; and he describes them as clothed with a beautiful verdure of woods, lofty and luxuriant, intersected with spots that have been cleared for plantations, groves of cocoa-nut trees, and habitations of the natives, who seem to be very numerous. He supposes that these islands produce several valuable articles of trade, particularly spices, as they lie in the same climate and latitude as the Moluccas; but he was not in a condition to examine them.

Admiration, in Ethics, is that passion which is excited by the contemplation of excellence, that is rare or uncommon, either in kind or degree. The objective cause of this admiration is any thing that indicates a superior degree of wildness, ingenuity, good fense, or benevolence. Such are the qualities to which it is properly confined. Power, substractively considered, is not the object of admiration; though the dignified or benevolent exertions of power for the production of good, may excite the highest degree of admiration, and render it a very strong emotion. It is obvious, says an ingenious writer, that the range of admiration is from the simple approbation of the mind up to the most lively sensation, according to our conceptions of the extent of excellence, and also the degrees of our intert in its effects. It is also blended with various other emotions according to different circumstances attendant upon the passion. It is frequently introduced by surprize: when, for example, the discovery of these excellencies is sudden and unexpected; and then it becomes a vivid emotion. It is generally connected with some degree of wonder; as we are frequently ignorant of the causes which enabled any one greatly to excel ourselves or others; but as it is always excited by the real discovery of some qualities, it is not to be confounded with an emotion that proceeds from ignorance and embarrassment, previous to the discovery. When the evidences of wisdom or goodness exceed our utmost comprehension, or proceed far beyond the usual extent of excellence itself, they may excite astonishment. Cogan's Philosophical Treatise on the Passions.

Admiration, in Grammar, a note or character, intimating something worthy to be admired or wondered at. It is expressed thus (!). See Character.

Admission, in the Ecclesiastical Law, an act whereby a bishop, upon examination, admits or allows a clerk to be able or competently qualified for the office; which is done by the formula, admittis te habendum. All persons are to have episcopal ordination before they are admitted to any patronage or benefice; and if any shall presume to be admitted, not having such ordination, &c. he shall forfeit 100l. Stat. 14 Car. I. 11.

No person is to be admitted into a benefice with cure of 30l. per ann. in the king's books, unless he is a bachelor in divinity at least, or a preacher lawfully qualified by some bishop, &c.

Admissions, in Antiquity, officers, whose business it was to introduce persons to princes or to wealthy citizens. The office belonged to freed men, and was much defired. The principal, that preided over each of the four decuries into which they were distributed, was called magister admissionum, and deemed highly honourable. Historians say, that Vespasian, Antonine, and Alexander Severus, were very able of accedes, that they needed no admissions.

Admittendo Clerico, is a writ granted to him who hath recovered his right of presentation against the bishop in the common pleas.

Admittendo in Socium, is a writ for the association of certain persons to justices of assize formerly appointed.

Admonition, in Ecclesiastical Affairs, a part of discipline much used in the ancient church. It was the first act, or rem, towards the punishment or expulsion of delinquents. In case of private offences, it was performed according to the evangelical rule, privately; in case of public offence, openly before the church. If either of these took effect, for the recovery of the fallen person, all further proceedings, in the way of censure, ceased: if they did not, recourse was had to excommunication. Bingh. Orig. Ecclef. tom. ii. lib. 16. cap. 2. § 6. p. 31. Calvin. Init. lib. iv. cap. 12. § 2.

By the ancient canons, nine monitory, or admonitions, at due distance, are required before excommunication.

Admonition is also used, in writers of the barbarous age, for the citation or harrassing a person to appear in a court of justice. See Summons, &c.

Admonitie Fulgurium, a military punishment, among the Romans, resembling, in some respects, our whipping, or lashing, but performed with a vine-branch. Schitterman Diff. de Pen. Mil. Rom. cap. 12.

Admont, in Geography, a town of Germany in Stiria, on the river Enz; two leagues north-east of Rotterdam. It depends upon the archbishopric of Salzburg, and has a rich abbey of Benedictins in the high mountains.

Admortalization, among Feudal Writers, the act of reducing lands to mortmain.

ADNATA,
ADO

ADONATA, in Anatomy. See Conjunctiva.

ADONATA, or Adnascientia, among Gardeners, denote those off-sorts, which, by a new germination under the earth, proceed from the lily; nereifius, hyacinth, and other flowers, and afterwards become true roots.

Adnata is also a term used for such things as grow upon animal or vegetable bodies, whether inapparently, as hair, wool, horns, &c. or accidentally, as the Several episcopal plants.

ADNATUM folium, in Botany, denotes the disk of the leaf precluding close to the stem of the plant; and adnatus, in a general sense, denotes connected.

ADNOTATIO, in Antiquity, denoted the register of a prince, signed by himself.

ADNOU, Adomen, or Adnasse, is used by some Grammarians to express what we most usually call an Adjective.

ADO, in Biography, archbishop of Vienne in Dauphiné, was born A.D. 860, and distinguished by his piety, industry, and learning. His Universal Chronology, comprehends the whole extent of history to the year 879. It was printed in folio at Paris in 1512, in Gothic characters, and reprinted by Morel in 1567. A new edition of this valuable work was published in folio, at Rome, in 1745. Ado was also the author of a Martyrology, published by Roskveyde, a Jesuit, in 1613. Gen. Biog.

AD OCTO, q.d. to the eighth number; a term used by some ancient philosophers to denote the highest or superlative degree; because in their way of distinguishing qualities, they reckoned no degree above the eighth.

ADOD, in Mythology, the name which the Phœnicians gave to the king of their gods.

ADOLESCENS signifies the iron bars that support the fire, in a grate or furnace.

ADOLESCENCE, formed of adoleo, to grow, the state of growing youth; or that period of a person's age commencing from his infancy, and terminating at his full stature or manhood. The state of adolescence lasts so long as the fibres continue to grow, either in magnitude or firmness. It is commonly computed to be between 15 and 25, or even 30 years of age; though, in different constitutions, its terms are very different. The Romans usually reckoned it from 12 to 25 in boys, and to 31 in girls, &c. And yet, among their writers, juven and adolecentes are frequently used indiscriminately, for any person under 45 years. The fibres, being arrived at a degree of firmness and tension sufficient to sustain the parts, no longer yield and give way to the efforts of the nutritive matter, to extend them; so that their farther accretion is stopped from the very law of their nutrition.

ADOLFECK, in Geography, a town of Germany, in the circle of the Upper Rhine; eight miles west of Idstein.

ADOLIA, in Botany, a genus of plants described by Rheedie among the trees of Malabar, which bear a near relation, says M. Le Marec, (Encycl. vol. i. p. 44.) to the Rhamnus. The characters are, that each flower is composed of a calyx, divided to its middle in five equal notches; the corolla and flaminea are unknown; the pistillum is a small oval situated at the center of the calyx, and which becomes, when ripe, a roundish berry, containing five oblong, triangular, ovoïd seeds. There are two species, viz. A. altia, with white flowers, which grows to the height of seven feet, and bears fruit twice a year; the berries when ripe are of a purplish black colour; and A. rubra, with red flowers, which resembles the other; but the berries of this species, when ripe, are of an orange colour and of an acid taste.

ADOLPHUS, Frederick II. of Holstein-Gottorp, king of Sweden, was born in 1710, and succeeded his father Frederick in 1751. He married a sister of the king of Prussia in 1744, and faithfully pursued the good of his country, and his reign was upon the whole prosperous. He reformed the laws, cultivated science, promoted commerce, and for the most part preserved peace; though he could not prevent Sweden from joining the league against Prussia in 1757, a measure that contributed very little to its reputation. He instituted an academy of inscriptions and belles lettres in imitation of that of France, and erected a pyramid at Tornoe in Lapland, to commemorate the labours of the French academicians, who were sent thither to measure a degree of the meridian. He died much regretted in 1771; and was succeeded by his son Gustavus III. Nov. Dict. Hist.

ADOLPHUS, Christian Michael, the son of Balthazar Adolphus, merchant of Hirschberg in Silesia, was born the 14th of August 1676. After studying the different branches of medicine under the most celebrated masters of his time, he graduated at Utrecht, then went to Leipzig, where he acquired considerable reputation as a teacher. In 1747 he published, Differtationes Physico-medicae selectae, 4to. The titles of the Differtations, which are very numerous, may be seen in the 4to. volume of Haller's Biblioth. Med. Pract.

ADOM, in Ancient Geography. See Adam.

ADON, in Modern Geography, one of the states or principalities, into which the maritime part of the Gold-coaft in Africa is divided. It is bounded on the east by Mamba, on the south by Guaffe, on the north by Vaibbs, and called north-east by Abramboe. This country extends along the river Schama, and has many fine islands belonging to it, which are covered with beautiful and populous villages; the government was formerly monarchical; but the supreme authority is now lodged in a council of six lords. Adon is populous, fertile and rich; abounding with corn, fruit, and animals, both wild and tame; but the peace and prosperity of the country are often interrupted by civil discord. The Adomefe have it in their power to intercept the communication of the northern regions with the negroes of the coast, and oblige them to pay a duty which yields a large revenue. If these people were united and powerful within themselves, they would be the terror of surrounding nations. Adon adjoins to Asra, which is often disturbed by the incursions of the Adomefe. These people generally trade with Axim and Boutry; and sometimes with Little Comendo. Mod. Un. Hist. vol. iii. p. 453.

ADON, or Theten, a town of Hungary, situate on the Danube; four leagues south-west of Oßen.

ADOMER, one of the states of the Gold-coaft, called also Saku and Avina, adjoining to Adon and Axim; and differing little from them in produce, trade, laws and customs.

ADON, a large populous village of Hungary, situate in the province of Stuhl-Weilburg, or Alba regalis, in a rich country on the banks of the Danube. E. long. 19° 20', N. lat. 49° 30'.

ADONAI, one of the names of God in scripture. This word properly signifies my lord, in the plural number, as Adon, signifies my lord, in the singular number. The Jews, who, either out of respect or superlition, do not pronounce the name of Jehovah, read Adonai in the room of it, as often as they meet with Jehovah in the Hebrew text. But the ancient Jews were not so ferupulous; and there is no law which forbids them to pronounce the name of God. This superlition commenced among the latter Jews after the Babylonish captivity; at least before the time of Jofi-
plus, who expressly says, that it was not lawful for him to speak of the name by which God had revealed himself to Moses. See Geddes's Critical Remarks, vol. i. p. 167.

**ADONEA**, in *Mythology*, the name of a divinity which preceded over voyages.

**ADONI**, in *Geography*, a district of Hindostan, in the country of Golconda. It is also the name of a town in this district, about 188 miles north of Scingapatam. E. long. 77° 18'. N. lat. 14° 56'.

**ADONIA**, in *Antiquity*, solemn feasts in honour of Venus, and in memory of her beloved Adonis, who is supposed to have been killed by a wild boar in the forest of mount Libanus, from which the river Adonis descends. Bishop Patrick (Com. in Exod. xii. 36.) ascribes the origin of these feasts among the Egyptians to the slaying of the first-born in the time of Moses; and he, adopting the conjecture of Schneecus, an ancient writer, infers to the opinion, that Pharaoh's eldest son, who was now slain, had the name of Ofiris; and that his sudden death on this occasion was lamented by all posterity in one night of the year, at the time of full moon. Dr. Spencer, (De leg. Heb. l. ii. c. 37. § 1. vol. i. p. 575.) conjectures, that these feasts had their origin with the Egyptians; but, that the death of Ofiris or Adonis, generally understood to be the sun, being the god that prevailed over the fruits of the earth, or used symbolically for the fruits themselves, denoting their being cut off or separated from the earth in the time of harvest; which event was celebrated with mourning and lamentation; and as the Egyptians gathered the first fruits of the earth with this kind of unreasonable and excessive sorrow, he thus accounts for the institution recorded in Deut. xxvi. 14. To these feasts the prophet Ezekiel is supposed to refer, ch. viii. 14.; and if Tamnuz or Tammuz be the name with Ofiris or Adonis, as learned men generally suppose, the circumstance above-mentioned accounts for this solemnity being kept in the month of Tamnuz, answering to part of our June and July, because the harvest was finished in those hot countries by or before that time. See Lowth's Com. in loc.

This idolatry, derived from the Egyptians, was afterwards adopted by other nations, as the Phoenicians, Lycians, Syrians, and Greeks, and improved by the addition of a newable, viz. Venus's mourning for the death of Adonis. The scene of Adonis's history is said to be at Byblos in Phœcinia; and the signal for celebrating the Adonis was the change of the water of the river Adonis into blood, which happened once a year. Lucian (De Syria Des, iv apud oper. tom. iii. p. 454. Ed. Reitzii) gives the following account of these feasts. The Syrians affirm, that what the boar is reported to have done against Adonis was transacted in their country; and, in remembrance of this calamity, they annually beat themselves and weep, and celebrate frantic rites, and great lamentations are instituted through the whole country. When they have had enough of lamentation and tears, they still perform funeral obsequies to Adonis, as to one that is dead; and afterwards, on a following day, they feign that he is alive, and ascended into the air or heaven, and shave their heads as the Egyptians do, on occasion of the death of their apis. If any women will not consent to be shaved, they are obliged to prostitute themselves once to strangers, and the money they thus earn is consecrated to Venus. Some of the Bybians, continues Lucian, are of opinion, that these orgies are performed in honour of Ofiris, the Egyptian deity, and not of Adonis. The Egyptians, at the time of this feast, are said to convey a box made of rush or papyrus, with an inclosed letter, informing the inhabitants of Byblos, about seven days journey from the coasts of Egypt, that their god Adonis, whom they apprehended to be lost, is discovered. The vessel always arrives safe at Byblos at the end of seven days. Lucian says, he was a witness of this event. The women, who are the principal actors on this occasion, expect the arrival of the vessel with impatience, and are frantic with joy when it arrives. According to Menæus, the two offices of lamentation and rejoicing made two distinct feasts, which were held at different times of the year, the first six months after the other; Adonis being supposed to pass half the year with Proserpine, and the other half with Venus. The lamentation they called áºªπνπγκ, or disappearance, and the rejoicing περιήγης, or return. These feasts were observed at Alexandria in the time of St. Cyril, and at Antioch in the time of Julian the apostate, who happened to enter the city during the solemnity, which was interpreted as an illomen. Ovid refers to the Adonis in his Metamorph. (l. iv. p. 725. tom. 2. p. 740. Ed. Burman.)

"... lucus monumenta manehunt, 
Semper, Adoni, meli: repetita mortis imago, 
Anna plangordis peragit simulamina morti. 
At errum in horum mutabilium..."

Procopius, St. Cyril, and some other learned men are of opinion, that Isaiah (ch. viii. 2.) refers to the circumstance above-mentioned of sending a letter by sea to communicate the news of Adonis's resurrection; whilst others, translating the Hebrew recub, idols, suppose that the passage refers to the images of Isis, which the Egyptians carried from place to place in a sort of portable reliquary, or ark of bulrushes. The rites practised in the Adonis resemble those of the Orphic Astronautica, and probably have the same origin and end. Bryant, Mythol. vol. i. p. 371.

The Adonias were otherwise called Salambo. The Abbé Banier has a memoir on the history of the Adonias. Mem. Acad. Inscript, tom. iv.

**ADONIEUS**, a name given by the Arabs to the sun, under which appellation they worshipped him, by daily offering to him incense and perfumes. This was also a name given to lycchus. ADONIC, in *Poetry*, denotes a short kind of verse, consisting of a dactyl and a spondee, or a trochee: as *nec juventus*. It takes its name from Adonis; as having been originally used in the Threnos, or lamentsations for that favourite. The chief use of the adonic verse is at the end of each strophe of sapphic verse; or among Ariostoian Anapalts in the ancient tragedy. But we meet with adonies by themselves without sapphics, as also sapphics without adonies. See an instance of adonic verses in Boethius, de Confus. Philos. lib. i. p. 24. Ed. Amnich. "Gaudia pelle," &c.

**ADONIDES**, in *Botany*, are those writers, who have given histories, or catalogues of the plants cultivated in some particular place.

**ADONION**, a species of southernwood, according to Gourreus, which used to be set in pots, and served as an ornament for gardens.

**ADONIS**, in *Antiquity*, a dance of the ancient Greeks, which was a kind of ballet, in which a pantomime imitated Adonis, and bewailed his misfortune.

**Adonis**, flos Adonis, or Phœnian's Eye, in *Botany*, a genus of the *polyanthus polygama* class and order, and of the natural order of *multifflora* and the *ranunculaceas* of Jullien. Its characters are, that the calyx is a five-leaved perianthium, and the leaves are obtuse, concave, a little coloured and deciduous; the corolla has from five to fifteen, but most commonly eight, oblong, obtuse, shining petals; the stamina conflit of very short, fubulate filaments, and the anthone are oblong and inflax; the pithillus has numerous germs collected
collected in a head, no styles, and acute reflex stigmas: no pericarpium; an oblong, spiky receptacle: the seeds are numerous, irregular, angular, gibbous on the base, reflex at the top, a little prominent and naked. To this genus belong six species: viz. the *cotrolis*, or tall, *autumnalis*, or common, the *vernalis*, or spring, the *apenninus*, the *capensis*, and the *reflexoria*, or bluster *adonis*. The first is by some botanists united to the second, although Dr. Smith separates them; it is a native of the southern countries of Europe, where it grows among corn: and a variety of it is mentioned by some authors. The second grows in Kent, near the river Medway, between Rochester and Maidstone, in fields sown with wheat; and the flowers are brought in great quantities to London, where they are sold under the name of red *morocco*. It is also found in Norfolk, Gloucester-ville, about London, and about Dublin. It is annual, and flowers from May to October. The spring *adonis*, which is near akin to the *apenninus*, to that La Mareck confers it as a variety of the other, is a native of Switzerland, Prussia, and various parts of Germany, where the root is often used for the true black helichore. The fourth is found wild in the Apennines, and in Siberia. The fifth species is found wild near the Cape of Good Hope. The sixth is also a Cape plant, and used by the Africans for railing blisters. There is another species recorded in the Supplement of the younger Linnaeus, there named *Adonis filia*, and considered as the daughter of the *Adonis caeparis*.

The two first species are annual, and thrive best in a light soil: the seeds should be sown in autumn, some in a warm, and others in a shady situation, that they may continue longer in flower: they will not bear being transplanted. The third and fourth are perennial, and the seeds should be sown in August, soon after they ripe: the ground should be kept clear from weeds, and in dry weather, watered; and in the autumn of the second year they should be transplanted into the situation where they are to remain. They may be increased by parting the roots, either in autumn or spring. They are hardy and flowery, and therefore defirable plants for a garden. The Cape species must be managed as other plants from that country. Martyn’s Miller. Gmelin reckons eight species, adding to those already enumerated the *miniatia*, which he says not to be different from the *autumnalis*, and the *flavina*, with octopetalous flowers, hairy calyx, and cylindrical fruit.

*Adonis*, in *Entomology*, a species of *papilio*, with entire caruncular wings, a black marginal ridge, underneath cinnamon, with numerous ocelli; of which the latter have a white central spot. The larva is green, with dorsal lines of yellow spots. It is found in Austria.

*Adonis*, in *Ancient Geography*, a river of Phœnicia, rising in Mount Libanus or Lebanon, and falling into the sea at Byblus, now Gibyle. The Turks call this river *Obhâkim Bâfis*. Mannerrell, in his *Journey*, p. 34, 35, confirms the opinion of Lucian (Opr. tom. iii. p. 456. Ed. Reitzii) concerning the red colour of this river. At certain seafloes of the year, especially about the feast of Adonis, it is of a bloody colour, which the heathens attributed to a kind of sympathy in the river for the death of Adonis, who was killed by a wild boar in the mountain, out of which this stream rises. The water was stained, says Mannerrell, to a surprising redness, and as we observed in travelling had discoloured the sea for a considerable distance into a reddish hue, occasioned, without doubt, by a sort of mineral, or red earth, washed into the river by the violence of the rain, and not by any stain from the blood of Adonis. This reddish tinge of the streams of water is not a singular phenomenon. Pococke (vol. i. p. 199) informs us, that when the river Nile is rising, its waters become red, and sometimes green. The same fact is confirmed by Mailler, and Volemy (Travels in Syria, vol. ii. p. 253) relates, that at Tyre there is a well, which command afford excellent water, but becomes troubled in September, and continues for some days full of reddish clay. This is confirmed as a festival by the inhabitants, who come in crowds to the well, and pour into it a bucket of sea-water, which they say, has the virtue of re-covering the clarines of the spring. An ingenious writer suggests, that the magicians of Egypt (Exod. vii. 22.) might, by their enchantments, have repeated some of the practices to which they were accustomed at the solemnity of the bleeding *adonis*; and if this was done at the feast of *Adonis*, they might perfume Pharaoh, that the miracle was wrought in favour of *Adonis*. Fragments in an Appendix to Calvin’s *Dint*., vol. ii. pt. 1. p. 26.

The river *Adonis*, according to Mr. Bryant (Myth. vol. i. p. 366.) is the same with *Eridanis*; and the circumstance of the change of the colour of its waters, and the death of *Adonis* or *Thannuz*, which was supposed to be the occasion of it, are pathetically described by Milton in the following lines of his *Paradise Lost*, B. i. v. 445.

"—*Thannuz* came next behind,
Whole annual wound in Lebanon all*ard*
The Syrian damsels to lament his fate
In amorous ditties all a summer’s day :
While smooth *Adonis* from his native rock
Ran purple to the sea; *supposed* with blood
Of *Thannuz* yearly wounded.”

*Adonis* is the name of a river of Africa, which rises in the mountains south-west of Tictua, and falls into the sea between Arcilla and Tangier.

*Adonis*, the name of a city in Thrace, called *Enonis*.

*Adonis*, in *Ichthyology*, the name of a small fish of the anguilliform kind, of a cylindric shape, and about six inches long; it is of a gold colour, mixed with a greenish hue in some parts, and in others with a reddish. It has on each side a white straight line running from the gills to the tail. Its gills are remarkably small, and many have hence supposed that it had none. It is remarkable for sleeping on the surface of the water, and near the shores; and Rondelius affirms, that he has seen them sleeping upon dry rocks. Mr. Ray suspects this fish, which is also called *exocoetus*, to be the same with the *exocoetus* of Bellonius, or the *Gatortugine*. The *adonis* of Bellonius is the *Blenius galerita* of the Linnean system.

*Adonis*, in *Mythology*, a beautiful youth, the son of Cinyras, an Affryian, who founded the city of Paphos, in the island of Cyprus. Venus, it is said, was enamoured of him from his infancy, and committed the care of his education to Proserpine, who refused to deliver him when he was demanded by Venus. The dispute was decided by Jupiter, by decreeing that he should be one third of the year with Proserpine, another third with Venus, and the last third at his own disposal; but Adonis, captivated by the charms of Venus, spent two-thirds of his time with her. Diana, it is said, took offence, and sent a wild boar to destroy him. Others say, that Adonis was the son of Cinyras by his daughter Myrrha; that he was disinherited for concealment to the mountains, and nurtured by the nymphs; that Venus fell in love with him, and admitted him to her embraces; that Mars, being jealous, transformed himself into a wild boar, and slew the beautiful youth; that Venus followed him to the shades, and obtained the consent of Proserpine, that he should be half the year with her, and half the year with Proserpine; and that Venus, triumphing in her success, appointed a festival to be celebrated in commemoration of
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of the event. This fable has been variously interpreted. Adonis, as some say, was the son, Venus the upper hemisphere of the earth, and Proserpine the inferior; and therefore, when he was in the fix inferior signs he was with Proserpine, and during the remaining time he resided with Venus. The bear which flew Adonis was the winter. Macrob. Saturn. l. i. c. 21. Others suppose that Adonis denotes the fruits of the earth; and when the feed was sown in the ground, Adonis was gone to Proserpine: and that when it had vegetated and spruped up to view, he reviited Venus. Hence they focused corn, and made gardens for Adonis, which were adopted more for pleasure than profit. Voyl. de Idolobib. l. ii. c. 5. Theocritus, Idyll. 111. According to Plutarch, (Sympoisacon, l. iv. oper. tom. 2. p. 671.) Ed. Xylander.) Adonis was the same with Bacchus; and Osiris was both the son and Adonis. Some are of opinion, that the Ammonites and Moabites called him Baal-Peor, and that he was the same with the Hebrew Thammuz. Bryant (Mythol. v. i. p. 371.) supposes, that the Cusamites worshipped their chief deity the sun, under this title; and he says, that at Byblus, Berytus, Sidon, and afterwards at Tyre, they used particularly mournful dirges for the loss of Adonis or Thammuz, who was the same as Thamas, and Osiris in Egypt. Hence the children of Israel were forbidden to weep and make lamentation upon a festival. Nehem. viii. 9. 14. See ADONIA.

The worship of Adonis was established by the emperor Adrian in the grottoes of Bethlehem, where it was suppos'd our Saviour was born. Adonis pisto, an ancient beverage or drink made of wine mixed with flower of roasted adon; the name with which what was otherwise called Cucumen.

ADONISTS, among Divines and Critics, a sect or party, who maintain, that the Hebrew points ordinarily annexed to the confonants of the word Jehovah, are not the natural points belonging to that word, nor express the true pronunciation of it; but that they are the vowel-points belonging to the words Adonai and Elohim, applied to the confonants of the ineffable name Jehovah: to warn the readers, that instead of the word Jehovah, which the Jews were forbidden to pronounce, and the true pronunciation of which had been long unknown to them, they are always to read Adonai. There were opposed to Jehovah; of whom the principal are Druiaus, Capellus, Buxtorf, Alling, and Roland, who has published a collection of their writings on this subject. See ADONAI and JEHOWAH.

ADOPISSUS, in Ancient Geography, a town of Asia Minor, which Ptolemy places in Lycaonia.

ADOPTER, in Chemistry, a vessel with two necks placed between a retort and a receiver, and serving to increase the length of the neck of the former. They differ from aludels, which were formerly used in the sublimation of several substances, both in their figure and in their situation. The adopters are tubes which become narrower at one end, from half a foot to three feet long, and are open at both ends. They are joined in a collatral oblique situation; whereas the aludels were fuch up right. Chemistry, plate 1. fig. 1. See Distillation and Receiver.

ADOPTIANI, in Church History, a sect in the eighth century, which sprang up under Charlemagne, about the year 783, in confequence of the concurring opinion of Eipand, archbishop of Toledo, and Felix, bishop of Urgel; whose diftinguifhing tenet was, that Christ, as to his human nature, was not the proper or natural, but only the adoptive Son of God. Their doctrine was condemned by a council at Frankfort in 794, and afterwards in a council at Rome under pope Leo III.

ADOPTION, an act by which any one takes another into his family, owns him for his son, and appoints him for his heir. The word is derived from adoptare; whence the Latin barbarous adulerare, to make a knight.

The custom of adopting was very familiar among the ancient Romans, who had an express formula for it. They first learned it from the Greeks, among whom it was called ἑρώτημα, ἀδοπήμα; and it was translated to them from the ancient Hebrews, Egyptians, and Alyrriors, among whom it prevailed.

As adoption was a sort of imitation of nature, intended for the comfort of those who had no children; eunuchs were therefore not allowed to adopt, as being under an actual impotency of begotting children. Neither was it lawful for a young man to adopt an elder, because that would have been contrary to the order of nature; but it was even required, that the person who adopted should be eighteen years older than his adoptive son, that there might appear at least a probability of his being the natural father.

The Romans had two forms of adoption: the one before the praetor; the other at an assembly of the people, in the times of the Commonwealth, and afterwards by a referent of the emperor. In the first, the natural father adjudged himself to the praetor, declaring that he emancipated his son, resigned all his authority over him, and confessed that he should be translated into the family of the adopter. The latter manner of adoption was practis'ed, where the party to be adopted was already free; and this was called adoption.

The person adopted changed all his names; assuming the surname and forename of the person who adopted him. When Augustus adopted his grand-children, the two sons of Agrippa and Julia, he adhered closely to the most solemn formularies of the Roman law, and invested on their fathers making over to him, by a kind of sale, his right to the children; and he gave them his name, so that they called them Caesars, and Lucius Caesar. In the reign of Nero, the senate passed a decree, ordaining that fraudulent adoptions should not avail thus as made them, either to qualify themselves for honours, or to receive the whole of any inheritance that might fall to them.

Besides the formalities prescribed by the Roman law, divers other methods have taken place; which have given denominations to various species of adoptions among the Gothic nations, in different ages.

ADOPTION by arms, was when a prince made a present of arms to a person, in consideration of his merit and valour.—Thus it was that the king of the Heruli was adopted by Theoderic; Athalaric, by the emperor Juttinian; and Coesrus, nephew of the king of Persia, by the emperor Julian.

This method of adoption, practised in Germany, was called barbarorum, by way of opposition to the Roman custom.

The obligation here laid on the adoptive son was, to protect and defend the father from injuries, affronts, &c.—and hence the ceremony of dubbing knights took its origin as well as name. Selden, Tit. of Hon. p. 865.

ADOPTION by baptism, is that spiritual affinity which is contracted by god-fathers and god-children in the ceremony of baptism.

This kind of adoption was introduced into the Greek church, and came afterwards into use among the ancient Franks, as appears by the Capitulums of Charlemagne. In reality, the god-father was so far considered as adoptive father, that his god-children were suppos'd to be entitled
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Adoption by marriage, or adoption per capitum, or crimen, was performed by cutting off the hair of a person, and giving it to the adoptive father. It was thus that Pope John VIII. adopted Boso of Arles, which, perhaps, is the only instance in history, of adoption in the order of ecclesiastics; a law that permitted a woman to marry another, not daring to give children to those in whom it would be thought a crime to begot any.

Adoption by marriage, is the taking the children of a wife or husband, by a former marriage, into the condition of proper or natural children; and admitting them to inherit on the same footing with those of the present marriage. This is a practice peculiar to the Germans; among whom it is more particularly known by the name of einkindshaft; among their writers in Latin, by that of uxor probum, or union of offices. But the more accurate writers observe, that this is no adoption. See Adoption.

Adoption by testament. See Levirate.

Adoption by testament, that performed by adopting a person heir by will, on condition of his assuming the name, arms, &c. of the adopter.

Of which kind, we meet with divers instances in the Roman history.

Adoption was allowed among the Greeks to such as had no issue of their own; excepting those who were not καταγενέσας, their own masters, e. gr. slaves, women, madmen, infants, or persons under twenty years of age; who being incapable of making wills, or managing their own estates, were not allowed to adopt heirs to them. Foreigners being incapable of inheriting at Athens, if any such were adopted, it was necessary for them to make free of the city. The ceremony of adoption being over, the adoptor had his name enrolled in the tribe and ward of his new father; for which entry a particular time was allotted, viz. the festival Supplicies.

To prevent rash and inconsiderate adoptions the Lacedemonians had a law, that adoptions should be transacted, or at least confirmed, in the presence of their kings. The children adopted were invested with all the privileges, and obliged to perform all the duties, of natural children; and being thus provided for in another family, ceased to have any claim of inheritance, or kindred, in the family which they had left, unless they first renounced their adoption; which, by the laws of Solon, they were not allowed to do, unless they had first begotten children, to bear the name of the person who had adopted them: thus providing against the ruin of families, which would otherwise have been extinguished by the death of those who had been adopted to preserve them. If the children adopted happen to die without children, the inheritance could not be alienated from the family into which they had been adopted, but returned to the relations of the adopter.

It should seem that by the Athenian law, a person, after having adopted another, was not allowed to marry, without permission from the magistrate: in effect, there are instances of persons, who being ill used by their adoptive children, petitioned for such leave. However this be, it is certain some men married after they had adopted sons; in which case, if they begat legitimate children, their estates were equally shared between the begotten and adopted.

Among the Turks, by the law of Mahomet, adoption is no impediment of marriage. The ceremony of adoption is performed by obliging the person adopted to pass through the scent of the adoptor. Hence, among that people, to adopt is expected by the pirate, to draw another through my fores.

Du-Cange supposes that the adoption of Godfrey of Bouillon by Alexis, who named him champion of the empire, and dignified his hommage with the filial name and rites of adoption, was of this kind.

It is said that something like this has also been observed among the Hebrews, where the prophet Elijah adopted Eliphaz for his son and successor, and communicated to him the gift of prophecy, by letting fall his cloak, or mantle, on him. 1 Kings xix. 19. 2 Kings ii. 15. But adoption, properly so called, does not appear to have been practised among the ancient Jews. Moses lays nothing of it in his laws; and Jacob’s adoption of his two grandsons, Ephraim and Manasseh (Gen. xlviii. 1.) is rather a kind of substitution, by which he intended that the two sons of Joseph should have each his lot in Israel, as if they had been his own sons. Culpeper.

In the East, the practice of adoption is still continued. Pitts (Account of the Religion and Manners of the Mahometans, p. 217. 227) informs us, that his patron, who was an old bachelor, being taken ill and likely to die in his pilgrimage to Mecca, took off his own girdle and put it on him, and at the same time put on himself the girdle of Pitts. In speaking of him afterwards, his patron called him his son; and occasionally lied to him, though I never was married myself, yet you shall be married, in a little time, and then your children shall be mine. Lady Montague (Letter xiii. vol. ii. p. 165.) says, that adoption is very common amongst the Turks, and yet more common amongst the Greeks and Armenians. With this view, and in order to prevent their estates from falling into the Grand Signior’s treasury, they chuse a child of either sex, among the meanest people, and carry the child and its parents before the Council, and there declare they receive it for their heir. The parents, at the same time, renounce all future claim to it; a writing is drawn and witnessed, and a child, thus adopted, cannot be disinherited.

By the Gentoo laws (Halhed’s, p. 263.) information must be given to the magistrate, by the person who is desirous of adopting a child, and a juss or sacrifice performed; and he is also to give gold and rice to the father of the child. A woman is not allowed to adopt a child without her husband’s consent, and he who has no son, or grandson, or great grandson, has liberty to adopt a son; but while he has one adopted son, he is not permitted to adopt a second.

Adoption is also used, in Theology, for a feudal act of God’s free grace; whereby those that are regenerate by faith, are admitted into his household, and entitled to a share in the inheritance of the Kingdom of heaven.

Adoption, in the more general scripture sense of the term, denotes that act of divine grace or favour, by which some of the human race are introduced into a peculiar relation to God, as his children and people. In this sense the privilege of adoption belonged only to the Israelites or Jews, before the coming of the Messiah. See Exod. iv. 22. Jer. xxxii. 9. Luke i. 54. Rom. ix. 4. But the Jews forfeited this honourable distinction, and were deprived of the national privilege they had long enjoyed: and God determined to admit the Gentiles into the state of sonship or adoption independently of any legal observances, and merely on the condition of faith in Jesus Christ. It has, however, been a subject of debate among divines whether adoption belongs to Christs in general, in consequence of their
their faith in Christ, and outward profession of his religion; or is appropriate to those Christians in particular who conform in their disposition and practice to the precepts of the gospel, and are the special objects of divine favour. According to the scheme of Dr. Taylor, in his Key to the Apoloitical Writings, prefixed to his Paraphrase, &c. on the Epistle to the Romans, (chap. xii. p. 91.) adoption, as well as election, vocation, justification, &c. belong to the classes of antecedent blessings, which, in a sense, belong at present to all Christians, even those, who for their wickedness shall perish eternally; and that they do not import an absolute, final state of favour and happiness; but are to be considered as principles or motives to engage us to holiness and obedience. He allows that some of the expressions, whereby the antecedent blessings are signified, may be used in a double sense; either, as they are applied to all Christians in general in relation to their being translated into the kingdom of God, and made his peculiar people, enjoying the privileges of the gospel; or, as they signify the effects of those privileges, viz. either that excellent disposition and character which they are intended to produce, or that final state of happiness, which is the reward of it. See Locke’s Works, vol. iii. p. 312. 570.

Adoption has a particular respect to that future resurrection and immortality, to the hope of which Christians were foretold again by the doctrine and resurrection of Christ. See Whitby Comment. vol. ii. p. 44. 324. 339. 6th edition.

Adoption is sometimes also used, in speaking of the ancient clergy, who had a custom of taking a maid or widow into their houses, under the denomination of an adoptive or spiritual foster, or niece. Du Cange.

Adoption is also used in speaking of the admission of persons into certain hospitals, particularly that of Lyons; the administrators whereof have all the power and rights of parents over the children admitted.

Adoption is also used for the reception of a new academy into the body of an old one.

In which sense, adoption amounts to much the same with incensation.

The French academy of Marfeilles was adopted by that of Paris; on which account, we find a volume of speeches extant, made by several members of the academy of Marfeilles, deputed to return thanks to that of Paris, for the honour.

In a sense not unlike this, adoption is also applied by the Greeks, to the admitting a monk or brother, into a monastic community; sometimes called spiritual adoption.

ADOPTIVE, ADOPTIVUS, or ADOPTITUS, denotes a person adopted by another.

Adopted children, among the Romans, were on the same footing with natural ones; for which reason, they were either to be habituated heirs, or expressly disinherited; otherwise the testament was null.

The emperor Adrian preferred adoptive children to natural ones; because he chose the former, but are obliged to take the latter at random.

M. Menage has published a book of elogies, or verbes addressed to him; which he calls Liber Adoptivus, an adoptive book; and adds it to his other works.—Heinius, and Furf-lemburg of Munster, have likewise published adoptive books. In Erolofical Writers we find adoptive women or sisters, adoptiva familia, or forores, used for those handmaids of the ancient clergy, otherwise called subintroduttor.

ADOPTIVE GIFT are those which a person enjoys by the gift or concession of another, and to which he was not otherwise entitled. They stand contradistinguished from arms of alliance.

ADOPTIVE is also used to express a thing borrowed or taken from another. In which sense we sometimes meet with adoptive hair, by way of opposition to natural hair; and adoptive gods, by way of contradistinction to domestic ones. The Romans, notwithstanding the number of their domestic, had their adoptive gods, taken chiefly from the Egyptians: such were Isis, Osiris, Anubis, Apis, Harpo-ocrates, and Canopus.

ADOPTIVUS, in Church History. See ADOPTANI.

ADOR signifies a species of corn called spelta and \*\*.

ADORAX, or ADORAX, in Ancient Geography, a city belonging to the tribe of Judah, not far from Marecu in the southern part of Judah, in the confines of Idumea. These two cities were taken by Hyrcanus in his expedition into Syria, when he deformed the Samaritan temple on Mount Gerizim. Joseph. Antiq. apud op. tom. i. p. 659. ed. Havern.

ADORATION, the act of rendering divine honours; or of addressing God or a being, as supposing it a god. See WORSHIP. The word is compounded of ad, to, and or, mouth; and literally signifies to apply the hands to the mouth; namely ad as adorand, q. d. to bow the hand; this being, in the eastern countries, one of the great marks of respect and submission; and feeming, from the first books of Herodotus, to be of Persian origin. To this mode of idolatrous worship Job refers, chap. xxxi. 26, 27.—See also 1 Kings xii. 18.

The ceremony of adoration among the ancient Romans was thus: the devotees having his head covered, applied his right hand to his lips, the fore-finger resting on the thumb, which was erect, and thus bowing his head, turned himself round from left to right. The kids thus given was called of Is lux labratum; for ordinarily they were afraid to touch the images of their gods themselves with their profane lips. Sometimes, however, they would kiss their feet and even knees, it being held an ininciency to touch their mouths; so that the affair passed at some distance. Others pretend, that they first stretched out the hand, and afterwards drew it back to their lips; but it rather appears that the contrary order was observed. Saturn, however, and Hercules, were adored with the head bare; whence the worship of the last was called infintum peregirium, and ritus Gerioenicius, as departing from the Roman customary method, which was to facieare and adores, with the face veiled, and the clothes drawn up to the ears, to prevent any interruption in the ceremony, by the sight of unlucky objects.

Sometimes also prolitiation, or falling on the face, and sometimes kneeling, were practised; sometimes they turned towards the sun, and sometimes to the eaf.

Other circumstances of adoration were the putting crowns, garlands, and the like, on the statues or images adored; sitting down by them, praying to them in soft trembling murmur, to be favourable, jumЗа milis. The Romans practised adoration at sacrifices, and other solemnities; in passing by temples, altars, groves, &c. at the sight of statues, images, or the like, whether of stone or wood, wherein any thing of divinity was supposed to reside. Usually there were images of the gods placed at the gates of cities, for those who went in, or out, to pay their respects to.

The Gauls, instead of turning about to the right hand,
Adoration is also used for certain extraordinary civil honours or respect, which resemble those paid to the Deity, yet are given to men.

We read of adorations paid to kings, princes, emperors, popes, bishops, abbots, &c. Adorations paid to the pure, to the perfect. Adoration by kneeling, by falling prostrate, kissing feet, hand, garment, &c.

The Persian manner of adoration, introduced by Cyrus, was by bending the knee, and falling on the face at the prince's feet, striking the earth with the forehead, and kissing the ground. This was an indispensable condition on the part of foreign ministers and ambassadors, as well as the king's own vassals, of being admitted to audience, and of obtaining any favour. This token of reverence was ordered to be paid to their favourites, as well as to themselves, as we learn from the history of Haman and Mordecai, in the Book of Esther; and even to their statues and images; for Philostratus informs us, that, in the time of Apollonius, a golden statue of the king was exposed to all who entered Babylon, and none but those who adored it were admitted within the gates. The ceremony, which the Greeks called ἱεροπρεπές, Conon refused to perform to Artaxerxes, and Caligalines to Alexander the Great, as repugnant it impious and unlawful.

The adoration performed to the Roman and Grecian emperors, consisted in bowing or kneeling at the prince's feet, laying hold of his purple robe, and presently withdrawing the hand, and clapping it to the lips. Some attribute the origin of this practice to Constantius. They were only persons of some rank or dignity that were entitled to the honour. Bare kneeling before the emperor to deliver a petition, was also called adoration.

It is particularly said of Dioclesian, that he had gems fastened to his shoes, that divine honours might be more willingly paid him, by killing his feet. And this mode of adoration was continued, and aggravated till the last age of the Greek monarchy. See Gibbon's Decline and Fall of the Roman Empire, vol. x. p. 124, 8vo. When any one pays his respects to the king of Achen in Samara, he first takes of his shoes and stockings, and leaves them at the door.

The practice of adoration may be said to be still subsisting in England, in the ceremony of killing the king's or queen's hand, and in serving them at table, both being performed kneeling.

Adoration is also used in the court of Rome, for the ceremony of killing the pope's feet.

It is not certain at what period this ceremony was introduced into the church; but it was probably borrowed from the Byzantine court, and accompanied the temporal power. Dr. Machina, in the chronological table which he has subjoined to his translation of Molheim's Ecclesiastical History, places its introduction in the eighth century immediately after the grant of Pepin and Charlemagne. Baronius traces its origin back to a much higher antiquity, and pretends that examples of this homage to the vicar of Christ occur as early as the year 204.

These prelates finding a vehement disposition in the people to fall down before them, and kiss their feet, procured crucifixes to be fastened on their slippers; by which stratagem, the adoration intended for the pope's person, is supposed to be transferred to Christ. Divers acts of this adoration we find offered even by princes to the pope: and Gregory XIII. claims this act of homage as a duty. We are told, that in the ancient church the same ceremony was practised to all bishops; people kissed their feet, and saluted them with the phrase ἐκπολεμῶ σου, I adore thee.

Adoration is also particularly used for the ceremony of owning, or paying homage to a new elected pope. The first election at which the ceremony is expressly recorded to have taken place, is that of Valentine, A. D. 827. The second is that of Leo IV. A. D. 847. Amalarius in Valentine. cap. 653. in Leon. iv. cap. 697.

Stephen II. being chosen pope, A. D. 752, in the church of St. Mary ad Praetere, was carried on men's shoulders from thence to the Lateran; and Polydore Virgil observes, that this is the first instance of this ceremony, which occurs in the history of the popes. See Bower, vol. iii. p. 343.

Adoration properly is paid only to the pope, when placed on the altar, in which posture the cardinals, consilvii alone, are admitted to kiss his feet. The people are afterwards admitted to do the like at St. Peter's church; the ceremony is described at large by Guicciardini.

Adoration is also used as a method of electing a pope without scrutiny, or voting. In the election by adoration, the cardinals rush hastily, as if agitated by some spirit, and fall immediately to the adoration of some one among them, and proclaim him pope.

In the election by scrutiny, adoration is the last thing, and follows the election; as in the other it is the election itself, or rather supercedes the election.

Adoration is more particularly used for kissing one's hand in presence of another as a token of reverence.

The Jews adored by kissing their hands, and bowing down their heads; whence in their language kissing is properly used for adoration. Colmct.

Adoration is also used among Roman writers, for a high species of applause given to persons who had spoken or performed well in public. The method of expressing it was, by riling, putting both hands to their mouth, and then returning.
returns them towards the person intended to be honoured.

See Acclamation.

Adoration is of divers kinds and qualities: supreme and subordinate; mediate and immediate; absolute and relative; internal and external; secret and open.

Adoration, external, coincides with what is otherwise called ritual adoration.

Adoration, internal, coincides with spiritual adoration, called also adoration in spirit and in truth.

Adoration fidelis, that performed in public, with stated ceremonies prescribed by authority: in opposition to private, or secret, or implicit adoration.

Adoration, supreme, the highest degree of religious honour or worship rendered to a being, as supposing him the supreme God; in opposition to subordinate worship given to inferior beings.

Adoration, absolute, that rendered immediately to a being, in consideration of his own essential perfections, and terminating in himself. This coincides with immediate adoration, and stands opposed to relative or mediate adoration. Olearius has an express dissertation on the adoration of the Father by the Son.

Adoration, relative, is that worship paid to an object, as belonging to, or representative of another.

In which sense the Romans professed to adore the crows, not simply or immediately, which they allow would be idolatry, but in respect of Jesus Christ, whom they suppose to be on it. The Juleuts in China carry an image of Christ under their clothes, and to this refer mentally the public adorations they offer to Chachincho. Vide Pafcal. Letr. Prov. 5.

Adoration, perpetual, is a kind of society or association of devout persons established in Romish countries, who take their turns to pray before the shrines, regularly relieving each other, so that the service never ceases day nor night.

The members of the perpetual adoration answer to the Acomitti in the cemail church.

We find societies under this denomination in France, Germany, Italy, &c.

Adoration, barbarous, is a term used in the laws of king Canute, for that performed after the manner of the heathens, who adored idols.

The Punicans adored the winds, on account of the terror and effects produced by them; the same practice was adopted by most of the other nations, Persians, Greeks, Romans, &c.

The Trojan poets adored tortoises, as something peculiarly sacred; several people adored weapons, and instruments of war. The Scythians, &c. adored foxes, the Romans axes, and the Arabs stones, the Indians adored vipers, the Bengal and Canadee the sun; the latter of which nations is also said to adore the crows. The Manta, a Peruvian people in the island of Puna, anciently adored a huge emerald, of the bigness of an ostrich's egg, by offering to it other emeralds of a lesser size. All which the priest kept for their own use: the doctrine, as Gareciasso observes, being founded on their avarice.

The Persians chiefly paid their adorations to the sun and fire, some say also to rivers, the wind, &c. The motive of adoring the sun was the benefits they received from that glorious luminary, which of all creatures has doubtless the best pretensions to such homage; the institution of the fire-worship is usually referred to Zoroaster. The retainers to it are called ignicole; by the Persians, Ghebr, Arsche, Persch.

Dr. Hyde reduces the Persian fire-worship to a subordi-
on the declivity of a hill, on the west side of a small plain, surrounded every where by mountains. Its name signifies "paf" or "pyjego," is derived from its situation, on the flat ground immediately below the river Ribierain, by which every body must pass in their way from Gondar to the Red Sea. This plain is watered by three rivulets, which are never dry, viz. the Afia, Mai Gogne, and Ribierain, which join the other two, and falls into the river March, about twenty-two miles below Adowa. This town, which is now the capital and residence of the governor, consists of about 300 houses, each of which has an enclosed round it of hedges and trees. The mansion of the governor is situated upon the top of a hill, and is a kind of prison, inhabited by about 300 persons who are detained in irons, and in cages like wild beasts, some of whom have been confined for more than twenty years, with a view of extorting money from them, and who do not obtain liberation, even when the money is paid. There are two churches in the vicinity of this town, viz. Marian and Edus Michael, and also a monastery, called Byk Abba Garai, one of the most celebrated in Abyssinia; which was once a residence of one of their kings, whence some travellers have reported that the metropolis of Abyssinia was called Germe. Adowa is the seat of a very valuable manufactory of coarse cotton cloth, which circulates through Abyssinia instead of silver money; each web is 16 deep, and 11 wide, and their value is 200, i.e. ten for the ounce of gold. The houses in this town are all built with rough stone, cemented with mud instead of mortar; their roofs are of a conical form and thatched with a reedy fort of grass. The buildings of thatching belongs exclusively to the Falatah or Jews. The vicinity of Adowa is the only part of Tigre which has soil sufficient to yield corn, the whole of the province besides being one entire rock. They have heretofore havelock annually, which culls no following, weeding, manure, or other expensive processes; and yet the farmer in Abyssinia is always poor and miserable. N. lat. 14° 7'. 57°. E. long. 38°. 50'. Bruce's Travels, vol. iii. p. 118.

ADOXA, formed of "priv. and "dix gloria, q. d. "gladly, or of no "bo-w, in Botany, a genus of the olidiiaria tetragoninae chief and order, and of the natural order of "filament, and "fide of Jaffee; the characters of which are, that the calyx is an inferior, biahe or trifid, flat and permanent perianthium; the corolla is monopetalous, flat and divided into four or five segments, with clefts ovate, acute and longer than the calyx; the stamens are borne in filaments, of the length of the calyx, and the anthers roundish; the pistil has a germ below the receptacle of the corolla; the styles are simple, erect, of the length of the filaments, and permanent, and equal in number to the clefts of the corolla; the stigmas are simple; the pericarp is a globose berry, between the calyx and corolla, the calyx being united below with the berry, umbilicate and four or five celled; the seeds are solitary and compressed. There is one species, viz. the A. mucronata, bulbous fumitory, hollow root or tuberous mokchate, which grows naturally in shady places and woods, as in Hampstead and Charlton woods; it is perennial, flowers in April and May, and the seeds ripen in May. The leaves which soon after decay and the flowers smell like musk, on which account it has been sometimes called "musk coronum. The roots must be planted after the leaves are decayed, under thums, for if they are exposed to the sun, they will not thrive. Martyn's Miller's Dictionary. Smith's Flor. Brit. vol. i. p. 112.

ADPERCEPTION, in the Leibnitzian style, denotes
Vol. 1.
ADRA

Draga, a place of Arabia, situate, according to Ptolemy, in long. 70° 10'. and lat. 15° 15'.

ADRAGANTH, the same as gum DRAGANT. See TRAGACANTH.

ADRAGNO, in Geography, a town of Sicily, twenty miles called-north-east of Mazaro.

ADRASITA, in Ancient Geography, the inhabitants of a district of India, which lay to the east of the rivers Acconines and Hydronetes.

ADRAMITAE, a people placed by Ptolemy in Arabia Felix.

ADRAMELECH, in Mythology, one of the gods adored by the inhabitants of Sepharvaim, who were settled in Samaria in the room of those Israelites that removed beyond the Euphrates. The people of Sepharvaim made their children pass through the fire in honour of this false deity, and another called Anamellech. Atramellech, i.e. the magnificent king, is supposed to have represented the sun, and Anamellech, i.e. the gentle king, the moon. Calmet.

ADRAMYTTIUS, in Ancient Geography, an island of Aisia Minor, on the coast of Lychia.

ADRAMYTTIUM, a famous city of Mycia Major, called also Pedasus, which, according to Strabo, (lib. xiii. tom. 2. p. 904.) was an Athenian colony, with a harbour and dock, situate at the foot of Mount Ida, near the Caucasus. It was so called, says Stephanus (de Urb. tom. 1. p. 22.) from Adramythus, the brother of Crethus, by whom it was built. Others say, that it was founded by the Lydians, and derived its name from Hermon, one of their kings, who, in the Phrygian language, was called Adraste. This is the Adramyttium mentioned Ads xxvii. 2. and not as St. Jerome and others suppose, a city of Egypt built by Alexander the Great, at the Canobic mouth of the Nile, and which has been supposed to be the name with Thebes. Whitby Com. vol. ii. p. 751. Imperial Greek medals have been struck in this city in honour of several of the Roman emperors. The medals are bronze, gold and silver. This city was formerly famous for trade and shipping; but is now called La Adramyttia, and inhabited only by a few Greek fishermen. The Adramyttian-bay was a part of the Egyptian sea, on the coast of Mycia: the towns on the north-east of this bay are now in ruins. The Comnentus Adramyttinus was the eighth in order of the conventus juridici of Asia.

ADRANA, a river of Germany, now the Elder, rises in Upper Helf, waters the county of Waldeck and Lower Helf, and falls into the Fulda about two miles from Caffel. When Germanicus, at the head of the Roman legions, ravaged the country of the Catii, most of their youth escaped by swimming over this river; and attempted, though without success, to prevent the Romans from laying a bridge over it. Tacitus Annal. i. c. 55. vol. i. p. 105. Ed. Gronov.

ADRANA, or Adrena, (Polybius, lib. xiii. p. 983. Ed. Cafrabus.) a city of Thrace, situate a little above Beumae.

Adrana was also a town of Asia Minor, in the Lower Mycia.

ADRAND, in Geography, a town of Persia, in the province of Irak; ten leagues east of Amadan.

ADRANIS, Drantis, or Adrains, in Ancient Geography, a town of Pannonia, in the more extended application of the term, situate in Noricum, north-east of Aquino, in the limits of Carnia and Noricum.

ADRANUM, now Aderno, a town of Sicily at the foot of Mount Atna, towards the north-east, near a river formerly bearing the name, which some now ascribe to it, Fiume d' Aderno. This city was built, says Diodorus Siculus (lib. xiv. c. 37. tom. i. p. 671. Ed. Weffel.) by Dionysius the elder, and so called from the Temple of Adrannus, the tutelary god of the Sicilians, and said by Heleftius to be the father of the Divi patrictii. This temple was a place of great resort at the last days of the year by the worshipers of this deity; and Adran (de Nat. Anim. lib. xi. c. 3. tom. ii. p. 632. Ed. Gronov.) says, that a thousand dogs were kept here, who fawned on those who brought presents to the temple, and conducted drunken perons to their own houses, whilst they fell furiously on thieves, and tore them in pieces. The medals of this city are bronze, gold and silver.

ADRAPSIA, a town of Bactria, mentioned by Strabo, (lib. xv. tom. 2. p. 1055.) but placed by Ptolemy in Hyrcania, beyond the river Mazera. It is also called Darapso, and seems to be that mentioned by Arrian (lib. iii. c. 29.) under the name of Daphase.

ADRASDIUS, an episcopal see in the patriarchate of Antioch, and the eighteenth under the metropolis of Seleucia.

ADRASTE, in Mythology, the daughter of Jupiter and Nepelleis, who, according to Plutarch, was the only fury that exercised the vengeance of the gods. The name is supposed to be derived either from adra, always active, or from a priv. and dappa, I fly. The Egyptian priests placed Adraite above the moon, where she observed the whole world, so that no guilty person escaped. See Nemesis. Adrailus, or Adrales, was the goddess of war and victory, among the ancient Britons; and as such invoked and acknowledged. This deity was probably the same with the Astarte of the Phœnicians. Dion. C. a. i. c. 1007. Ed. Reimari.

Adraste was also one of the nymphs who nured Jupiter in the cave of Dile.

ADRASTIA, or Drastea, an epithet given to the goddess Nemesis, or Revenge. It is said to be taken from king Adratus, who first erected a temple to that deity.

ADRASIA, in Ancient Geography, the name of a town of Asia, in the Troade, situate between Priapus and Parium, in a district of the same name, in which was an oracle of Apollo Ædneus, and of Diana. It was built by king Adratus. Strabo Geog. lib. xiii. tom. 2. p. 848.

ADRASIA Ceratania, in Antiquity, a kind of Pythian games, instituted by Adratus, king of Argos, A. M. 2760, in honour of Apollo at Sicyon. There are to be distinguished from the Pythian games celebrated at Delphi.

ADRASTUS, in Ancient History, a king of Argos, who distinguished himself in the famous war of Thebes, was the son of Talanus and Lydianassa, daughter of Polypus king of Sicyon. He reigned first in Sicyon, as successor to his father-in-law, and afterwards at Argos. Here he married his two daughters to Polynices and Tydeus, who took refuge in his court; the former of whom had been deprived by his brother Eteocles of his share of the sovereignty of Thebes. For the purpose of restoring him, this king, with five others, chiefly of his kindred, marched against Thebes; and this was called the expedition of the seven worthies, which is placed about 1225 years before Christ, and has been celebrated by the poets. Adratus alone escaped, being preferred by his house Arion. See Statius Theb. lib. iv. v. 40, &c. p. 312. Ed. Varior. This war was revived within ten years by the sons of the deceased worthies, and called the war of the Epigones. It terminated with the taking of Thebes. Adratus on this occasion left his son Ægeas, and was so distressed by the event, that he died of grief at Megara, as he was conducting home his victorious army. His memory was much honoured at Megara and at Sicyon.
Spartian, and inscribed name to E. but the De is 35.) feigned and, the a ordinary alleging, the Roman honour Dionyf. considérable, the bounds and have to 173. 16. philofopliy rcqueft death was Roman he lived of Adria, correct. Itinerary ADRIA, of ADRIAN, and ADRIANUS, in Ancient Geography, belonged to Iauria, and the metros of Selucia. ADRAZZO. See Ajaccio. ADRESTES, a people of India, subdued by Alexander. See Quintus Curtius, lib. viii. n. 9. ADRIA, or HANDRIA, in African Geography, of two towns in Italy; one of them was situated in the country of the Veneti, on the river Tartarus, or Adri, between the Pado and the Atheis, and was called ATRIUS by Ptolomey, and also by Pliny, (lib. iii. c. 16. tom. i. p. 173. Ed. Hard.) but denominated Adria by Strabo (lib. i. p. 82. — lib. ii. p. 168.—lib. v. p. 528.) the other was in the country of the Piceni, on the river Vomannus, to which Antonine's Itinerary from Rome is directed, and which was the country of the ancestors of the emperor Adrian. This is now the dukedom of ATRI, in Abruzzo. It has been a subject of dispute which of these two places gives its name to the Adriatic sea. The etymology is generally deduced from the Venetian Adria; and it is alleged, that the name is retained in the small town, that was destroyed by inundations and other calamities, now called Adria, which is a bishop's see, twenty-five miles south-west of Venice. N. lat. 45° 8'. E. long. 12° 5'. Aurelius Victor deduces the name from the Hadria of the Piceni. If this be the true derivation, the application should be Hadria, because the name of the emperor is inscribed on coins and stones Hadriana. But if the origin of the name is traced to the Venetian Adria, which is the most ancient, and of which the other is merely a colony, the usual application is the most correct. Euphratius in Dionys. v. 92. traces it to Adria, the son of Iao. ADRIA, an archi-episcopal city, in the patriarchate of Jerusalem. St. Jerome mentions a small island of this name. ADRIA, JEAN JACQUES, of Mazara, in Sicily, graduated at Salernum, in 1710, and acquired such reputation for his skill in medicine, that he was made physician to the emperor Charles the Fifth, and appointed proto-medicus of Sicily. He left in manuscript the following: "De prefer-vatione pedilhente." "De medicinis ad varias morbis." "De phlébotomia, dedicated to the emperor." "De balneis Siculis." ADRIAN, or HADRIAN, Publius ÆLIUS, the Roman emperor, was born, according to Spartan, (in Adri. p. 1—3.) in Rome, on the 24th of January, in the 76th year of the Christian era, A. U. C. 829. His ancestors lived at Halica, in Spain, which was the native city of Adrian, whom he succeeded in the empire, and whose name on that occasion he affumed in addition to his own. At the death of his father, when he was ten years of age, he was left under the guardianship of Trajan and Caius' Patrons, or Attianus, a Roman knight. His proficiency in the Greek language was so considerable, that, at the age of fifteen, he was commonly called the young Grecian. When Trajan was adopted by Nerva, Adrian served as a tribune in the army in Lower Media, and was deputed to congratulate his guardian on the event; and when Nerva died, he was the first that communicated the news to Trajan, who was then in Lower Germany, and that saluted him as emperor. Trajan, however, conceived prejudices against him, on account of the levity of his mind, the suspicion and jealousy of his temper, and the extravagance to which he was addicted; and though he manifested a tedious disposition, and made great acquisitions in Greek and Latin, in philosophy and the law, Trajan had not been accustomed to estimate these endowments very highly, nor did he form any flattering expectation of the advantages that were likely to accrue from them in the military profession, and in the extension of empire, to which he was devoted. Adrian perceived that he was not a favourite; and therefore endeavoured to conciliate the favour of the empress Plotina, by an affability of attention, which, as Dion Cassius intimates, by the expression ò ò ράλλη; ADRASSO, (tom. ii. p. 1149. Ed. Reim) seems to have triumphed the bounds of virtue. However, Adrian succeeded in securing the interest of the empress, and by her means, in obtaining the emperor's grand-niece, and next heir, Sabina, for his wife. This was the first step to his future advancement, and facilitated his ascent to the throne, much more than the assurance of the Marian astrologer, that the sovereign power was destined to him by the fates, or the prediction to the same purpose of his great uncle Ælius Adrianus. Soon after his marriage he was appointed quaestor; and at the expiration of this office, he was employed in digetting the deliberations of the senate; but he soon surrendered this occupation, and followed Trajan to the war against the Dacians. Trajan having left his army in Syria, and proposing to return to Rome, after a variety of extensive and rapid conquests, gave the command of it to Adrian; but he had neither capacity nor zeal for retaining, much less for enlarging, the emperor's conquests. The conqueror's absence was the loss of all the advantages he had gained. His death at the same time was gradually approaching, and opened prospects of ambition to Adrian, of which he was devoured of availing himself. He had already been quaestor, in the year of Rome 852; tribune of the people in 856, prætor in 858, sublimated consul in 860, and consul in ordinary and commander in chief in the last year of Trajan's reign. He had also accompanied Trajan in most of his expeditions, had the command of a legion in the second Dacian war, and obtained for his valiant conduct a present from the emperor of the diamond which Nerva had given him, which he considered as a pledge of his future adoption. In the interval between his praetorship and consulship, he had been governor of Lower Pannonia, and discharged the duties of his various offices with universal satisfaction. Trajan, however, never loved Adrian, nor did he intend to adopt him. Accordingly, Dion Cassius affirms, (tom. ii. p. 1149.) that he never was adopted. Nevertheless he succeeds him in virtue of a feigned adoption. Upon the emperor's death at Selinontum, in Cilicia, in his way to Rome, Plotina, affiured by Trajan, who had been preceptor to Adrian in the youth, contrived to send notice to the Senate, that Trajan, whom she had attended at the time of his death, had adopted Adrian; and, it is said, that she concealed a man, who perforated the dying emperor, and who with a feeble voice, declared that he adopted Adrian. This is certain, that Adrian, who was then at Antioch, received the news of his adoption on the 5th of August, and that of Trajan's death on the 9th. On this day, in the year 117, (A. U. C. 879, or according to Crever, who follows Tlle-ment, 868.) he was proclaimed emperor by the legions of Syria, and immediately wrote to the Senate to requell a confirmation of the act of the soldiery; apologizing, at the same time, for the impatience of the legions, forbidding them to bestow upon him any titles of honour without his previous consent, promising that he would direct his government.
ment to the public good, and binding himself by an oath, never to put a senator to death. The Senate very readily acceded to his request, and confirmed him in the empire to which he was elected. Adrian had now an opportunity of indulging that love of peace to which he was naturally inclined. Accordingly he abandoned the conquests of his predecessor in the east, and having withdrawn his troops from Armenia, Asia, and Mesopotamia, he agreed that the Emperors should again be the boundary and barrier of the Roman empire. He determined also to surrender Dacia, but his friends prevailed with him to retain it for the sake of those Roman citizens who had settled in it. However, he demolished the bridges which Trajan had erected over the Danube, under the pretence of guarding the Roman territories from the invasions of the barbarians. In order to reduce the Jews to absolute subjection, he removed Lucius Quietus, whom Trajan had commissioned for this purpose, and whom he had made governor of Palestine, from his government, and appointed his friend Marcus Turbon to succeed him; and he was also employed to quell the disturbances in Mauritania, which the removal of Lucius had probably occasioned. After having secured the tranquillity of Dacia, by making peace with the Sarmatians and Roxolani, which he endeavoured to render permanent in the following year by pecuniary donatives, granted also as the purchase of peace to other barbarous nations, he hastened to return to Rome; but did not arrive there till the year 118. During his voyage from Illyria, a conspiracy was formed against his life by four persons of confederacy, viz. Domitius Nigrinus, Lucius Quietus, Palma, and Celsus, who were put to death by order of the Senate. This act, however, excited the public hatred against Adrian. It was different from the conduct of his predecessor; and it was considered as a violation of the oath which he had made on his accession to the empire. To remove these ill impressions from the public mind, he was liberal in his donatives to the people. He remitted the debt due from cities and individuals to the imperial revenue, and to the public treasury, which is said to have amounted to seven millions of our money, and burnt all the records which might afterwards serve to revive these claims. With a reference to this act of generosity, Adrian is represented on one of the medals, which has reached our times, with a torch in his hand lighting fire to the bonds, with a legend, signifying "He enriches the whole world." He discharged Italy from the tax paid by victorious emperors for decorating their triumphs, and reduced the amount of it in the provinces: and besides making many presents of money, and various articles of subsistence and luxury to the Roman citizens, he increased the funds, appointed by Trajan, for the education of children of both sexes. The sum appropriated by Adrian to these several purposes was immense; and his liberality was honoured with a monument, consecrated to his memory, and with an inscription which celebrated him, as having thus exhibited a singular example of good-nature to the people. He likewise afforded in his attention to the Senate, and treated this body with a degree of deference and respect, which tended to remove the prejudices that had been conceived against him, and to engage their affectionate attachment. He affilled those senators who were poor; he enabled others to defray the charge of their offices; and he granted the honour of a third consulship to those who desired it. Upon his return to Rome, he was received by all ranks of people with extraordinary demonstrations of joy; but he declined accepting the triumph which had been prepared for Trajan, and which was now decreed by the Senate to the new emperor. He had already on his accession refused the offer that had been made to him of the title of father of his country, and deferred the acceptance of it, after the example of Augustus, who had not taken it till he had governed a certain number of years.

In the following year Adrian was consul a third time, but he resigned the fasces after four months, and never afterwards returned them. Having taken measures for establishing his power at home, he was under a necessity of leaving Rome, in order to check the incursions of the barbarians who invaded Illyricum. The war was soon terminated; and Marcus Turbon, who was recalled from Mauritania, was appointed governor of Dalmatia and Dacia. Towards the close of this year the emperor went into Campania, where he generously relieved the poor inhabitants of all the cities through which he passed. About this time he conceived a design of visiting all the provinces of the empire, and examining for himself the state of each country subject to Rome, that he might not be obliged to depend entirely on the reports of his ministers and governors; alleging, that an emperor ought to refresh the army, which extends illumination to all the regions of the earth. Accordingly he began his travels in the third or fourth year of his reign; that is, in the 12th or 13th year of the Christian era, A. D. 87, according to Tillymont. He first visited Gaul, where he displayed great liberality; and from thence he went into Germany, where the chief army of the empire was stationed, and the discipline of which he revived and established. In the following year he passed over into Britain, where he reformed many abuses. Although the greatest part of the island was subject to Rome, the northern nations, after the departure of Agricola, had revolted, and recovered their ancient liberty. Adrian, without entering into any new contest, propounded merely to secure the southern part, which belonged to the Roman empire, against the incursions of the warlike Caledonians; and, with this view, he caused a rampart, or wall, to be raised, extending from the Solway Firth on the west, to the mouth of the river Tweed, near Newcastile, on the east, about eighty miles in length. In other places he supplied the defect of natural barriers by mounds of earth strengthened by flakes driven into the ground. Here he also disgraced and discharged his secretary, Suetonius Tranquillus, the historian, and Septicius Clarus, captain of the pretorian guards, for their disrespectful behaviour to the emperor Sabina. Upon his return to Gaul, he built at Nimes a magnificent palace in honour of Plotina, the widow of Trajan. From Gaul he proceeded to Spain, and wintered at Tarracon, where he rebuilt the temple of Augustus, founded by Tiberius, and held a general assembly of the states, in order to compose the differences occasioned by raising levies for the Roman armies. Here a slave, in a fit of insanity, attempted to kill him; but he happily escaped, and committing the unhappy maniac to medical care, took no further notice of the affair. From Spain the emperor returned to Rome in April; and towards the end of this year, or the beginning of the next, he went, as some say, to Mauritania, and afterwards to Athens, where he built a bridge over the Cephissus; from Athens he proceeded to the extremities of the Roman empire in the east; and after having quieted the commotions of the Parthians, he returned through Asia, visiting the several provinces, and erecting edifices in several of their chief cities; and having passed through the islands of the Archipelago, he settled at Athens during the winter, and was there initiated into the Eleusinian mysteries. From Athens he went into Sicily to visit the top of Mount Etna; that he might observe the rising sun, which was said there to exhibit all the colours of the rainbow; and returned to Rome in the beginning
beginning of the following year, or the seventh year after his departure. The 11th and 12th years of Adrian's reign are quite barren of events. In the year 139 or 140, the cities of Nicomedia, Castra, and Nicaea, in Bithynia, were almost demolished by an earthquake, and they were rebuilt at the expense of the emperor, who was on this account denominated the restorer of Bithynia. In the course of this year he again departed for Africa; where, after a drought of five years, it rained upon his arrival, and the inhabitants, who received many favours from the emperor, ascribed the blessing to his presence. From Africa, he retired in the same year to Rome, where he caused the obsequies of Plotina to be performed with extraordinary magnificence. He lamented her death with great sorrow, composed verses in her praise, and caused her to be ranked among the gods. In the year 151, he left Rome with a design to revisit the provinces of the East, and passing through Athens, pursued his journey into Asia, where he consecrated several temples. From Asia he passed into Syria, from thence into Palæstine and Arabia, and afterwards into Egypt, in the fourteenth year of his reign, when the famous colossus of Rhodes shook, according to the Alexandrian chronicle. During this, and the following year, he continued in Egypt. At Pelusium he visited the tomb of Ptolemy the Great, which he repaired; he also repaired the city of Alexandria, and restored their ancient privileges to the Alexandrians, whose disposition and character he disliked, and who replenished his kindness with violent lampoons after his departure. From Egypt he passed into Libya Cyrenaica, where he killed a lion of enormous size, that had committed many depredations in the country. During his stay in Egypt, the youth Antoninus, to whom Adrian was criminally attached, fell into the Nile, and was drowned. Dion Cassius says, (tom. ii. p. 1162. Ed. Reim.) that he was facciated by Adrian, who being addicted to magic, conceived that he should prolong his life by sacrificing a human victim to the infernal gods. In the following year Adrian returned to Syria, and having passed through Thrace and Macedonia, he continued for some time at Athens. During his residence at Athens, the Jews revolted on occasion of the emperor's sending a Roman colony to Jerusalem, calling the city Aelia Capitolina, after the name of his family, and erecting a temple to Jupiter Capitolinus in the place where the ancient temple stood. The war with the Jews was attended by the invasion of the provinces of the empire by the Abani, or Malłączi, a people of Sarmatia. At Athens Adrian was much pleased with the customs and learning of the people. Here he affirmed the habit peculiar to the dignity of Areopag, celebrated the grand festival of Bacchus, and embellished it with many stately buildings, and particularly with a library of astonishing structure; infomuch, that he was revered as the second founder of the city, and one quarter of it was from him called Adrianopolis. In the year 153, the emperor left Athens and returned to Rome. Here he fell into a lingering disease, attended with a bleeding at the nose, which terminated in a dropy. Adrian, contrary to the universal expectation, and the remonstrance of his friends, adopted Commodus Verus, who was created pretor, appointed governor of Pannonia, and in the following year advanced to the confal-ship. The emperor retired to Tibur, now Tivoli, where he erected a magnificent villa; but his disorder increasing, and being aggravated by his licentious mode of living, he indulged his natural cruelty, and caused many illustrious persons to be arraigned and executed, and others to be privatey murdered. In the beginning of the year 158, Verus died, and was ranked by Adrian among the gods, and temples were built and statues erected to his memory by the orders of the emperor. Upon his death, Titus Antoninus was adopted; and after his adoption the emperor Sabina died, supposed to be poisoned by Adrian, or so ill used, that the said violent hands on herself. Adrian, however, caused her to be ranked among the gods. The emperor's impatience increas'd with his disorder, and having put several senators to death, and ordered others for execution, whom Antoninus preferred, he attempted to destroy himself, but was prevented by Antoninus from executing his purpose. At length he removed from Rome to Pisa, in Campania, where he hastened his death by his intemperance; and here he died, on the 16th of July, in the year 159, after having lived 62 years, 5 months, and 17 days, and having reigned 25 years and 11 months. His body was burnt at Puteoli, and his ashes were conveyed to Rome, where they were deposited in the magnificent mausoleum, which he had constructed for himself near the Tiber. The Senate intended to annul all his acts, but Antoninus opposed this measure; caused him to be deified, built a temple at Puteoli, and instituted annual sports to his honour, with præsides, fraternities, and victims. No prince ever created so many public and private edifices as Adrian. The regulations which he established for the maintenance of discipline among the troops were afterwards regarded as the military laws of the Romans, and many of the laws which he enacted were observed till the end of the fourth century. He prohibited all those private work-houses, which were inhabited by slaves and wretches; and he was not only a man of learning himself, but he encouraged literature and science. Many of his works, both in prose and verse, were published under his own name, and the names of other distinguished persons. His Greek poem, called the Alexandræis, has been quoted by some of the ancients. In his Catecismus, mentioned by Spartan, he pretended to imitate Antinachus, whom he preferred to Homer. He was so ambitious of fame, that he wrote his own life in several books, some fragments of which are still extant. His reign was distinguished in the history of literature, by a very considerable number of learned men, among whom we may reckon Philostratus, Favorinus, Epictetus, Arrian, Plutarch, Dionysius of Halicarnassus, Philo of Byblos, Suetonius, and Florus.

Adrian's reputation for talents and learning has been universally allowed. His memory was so retentive, that he could repeat a whole book, after having once perused it; and he knew the name of every soldier in his army. He excelled in every branch of learning, and was, without doubt, the best orator, poet, grammarian, philosopher, and mathematician of his time. He was eminent for drawing and painting, and for his skill in the theory and practice of music. He used at the same time to write, dictate to several secretaries, give audience to his ministers, and discourse with them about affairs of the greatest importance: and his court was crowded with men distinguished in every branch of literature and science. In his natural disposition he was fulsome, envious, lascivious, and cruel; and his general character exhibited a strange composition of virtues and vices. To his friends he was courteous and affable, and his liberality was unbounded. But he was ever ready to give ear to flatterers, and to believe every tale that was whispered against him, so that those who were once most distinguished by his favour were disgraced, banished, and put to death. Capricious and unsteady in his attachment, and violent in his resentment, he was displeased by his friends, and dreaded by his enemies. Nevertheless, the great and the rich did not suffer under his government from unjust condemnations and forfeitures. He knew how to pardon offences;
offences; and those who had been his enemies when he was in a private station, had no occasion to fear him when he was an emperor. When he arrived at the sovereign power, he fell to one of those from whom he had received the most convincing proofs of his hatred, "Behold yourself in perfect safety." His vanity, however, was always predominant; and he was often induced, by the fear of infamy, or the desire of applause, to preserve at least the appearances of virtue. In his plans of public improvement, he was comprehensive and liberal, even to the extreme of needless magnificence and culpable profusion. There was scarce a province, or a city, in which he did not leave substantial proofs of his attention to the benefit and convenience of its inhabitants. He repaired old edifices, and built new ones, baths, aqueducts, and harbours: and he expended large sums in embellishing the monuments of those who had distinguished themselves in former times, as in the case of Epaminondas's tomb at Mantinea; and in the honour he paid to Pompey's remains. To Greece he was particularly favourable; and from the Greeks he received many expressions of gratitude. And yet dilapidated and extravagant as he was in his private expenses, and in his public disbursements, he is said never to have unjustly seized any man's property, nor did he ever receive legacies from persons who were not known to him, or from any of his friends who had children.

In his voyages, when he was at any city, he administered justice to all who applied to him, or sought the assistance of the ablest lawyers. Adrian, indeed, devotes to be particularly recognized for the administration of justice, and the wisdom of his laws, for establishing and maintaining peace among the citizens. He considered the termination of disputes, by equitable decisions, as one of the principal duties of a sovereign, and he was averse to discharging it. His zeal for justice and good order led him to keep a strict eye over those who governed provinces under his authority; and he knew how to discover truth through all the arts of dissimulation. At Rome he made a very important reformation in the administration of justice. See Perpetual Edict.

He softened the rigour of servitude, and deprived matters of the arbitrary power of life and death over their slaves: he prohibited the sale of them, and their being rendered, according to their sex, victims of profition, or gladiators, without the authority of the judge; and he forbade the use of private prisons. From an attention to decency, he likewise prohibited the promiscuous use of baths for both sexes. He is also said to have renewed the ancient customary laws enacted by Augustus; and he forbade the abominable custom of human sacrifices, though in the case of Antonius he seems to have violated his own law. He punished fraudulent bankrupts with severity, and ordered them to be whipped. He reformed the police in many instances with judgment; and the alterations he introduced in the general conduct of the empire, in the service of the palace, in the military discipline, and in the government of the empire, was confirmed by practice, and continued even to the reign of Constatine. To his soldiers he set an example of simplicity and self-denial; and by his attention to them in various respects, he gained their love and confidence. He preferred none but men of courage, strength, and good character, saying, "such as the officers are, such will the soldiers soon be." Thus "he revived the ancient military discipline, which, by the negligence of many princes, had been decaying since the time of Augustus. It may be observed in general, that the Roman empire was happy under his government. The maxim which he inculcated in the assembly of the people, and in the senate, deserves to be recorded. "I propose to myself (say he) to govern the commonwealth, as to a thing I never forget it is not my own property, and that I am no more than administrator for the public." Adrian's government would have been praised, if he had succeeded the Antonians, but it was his misfortune to have Nero and Trajan for his predecessors, and for his successors Antoninus and Marcus Aurelius.

Adrian appears to have been too much addicted to every kind of superstition. He was fond of the Greek worship, and paid little attention to the religion of those nations whom the Romans and Greeks considered as barbarians; and therefore the temple, in which he is said to have erected in honour of Jesus Christ, were intended either for himself, and for his own proper worship, or in conformity to the doctrine of Numina Pythagorae, as places where the gods might be worshipped without images. The Christians he considered as enemies to the idolatrous worship of his gods; yet it is thought, that upon the whole he was moderate to them, more especially when it is considered how much the populace, infligated by the prides, wishes and endeavours to destroy them. Eutychius has preserved a report, which orders that they should be regularly prosecuted, and condemned if convicted of a breach of the law; but, on the other hand, if the charge brought against them should not be proved, their accusers should be punished. The moderation of this edict has been ascribed by some to the admirable apologies of Quadratus and Artilides in favour of the Christians. Adrian's conduct to the Jews was very rigorous, though their repeated insurrections and rebellion might furnish some apology for his severity. He forbade them even the sight of Jerusalem, into which they were not permitted to enter, except in one day of the year, which was the anniversary of the destruction of the city. He sent a Roman colony into the holy city, and called it Augusta Capitolina, that it might bear his family name, and that of Jupiter, to whom he had erected a temple in the place where that of the true God stood. He studiously profaned all the places which had been most revered by the Jews, with buildings set apart for the worship of idols: he placed a hog of marble upon the gate of the city which led towards Bethlehem; he erected in the place where Jesus was crucified, a statue of Venus; and in that where he arose from the dead, a statue of Jupiter; and in the grottos at Bethlehelm, where our Saviour was born, he established the worship of Adonis.

In this prince, says Creller, there centered very opposite qualities: he was gay and grave, generous and avaricious, impetuous and circumspect, frugal even to avarice and liberal, cruel and merciful. It is difficult to make an entire piece of such discordant parts: but we shall not be mistaken, if we consider his vices as real, his virtues as fictitious. Political interest and vanity were the principles of all the good he did; and these motives, united with an uncommon genius, improved with the most useful parts of knowledge, were sufficient to render him a prince whose government was for the good of the people in general, whilst his personal conduct made him a scourge to those who were near him.

The following verses addressed to his soul, which he composed, and uttered not long before he expired, express, amid great doubts and uncertainty, some general apprehensions concerning a future state.

Animula, vagula, blandula,
Hortes, conciue corporis,
Que nunc abibis in loca
Palladue, rigidis, undula?
Nec ut folcis, dabis jocos.

Poor
ADR

Poor little, pretty flattering thing,
Milt we no longer live together?
And dost thou prune thy trembling wing,
To take thy flight thou know’st not whither?
Thy humorous vein, thy pleasing folly,
Lies all neglected, all forgot:
And penitent, wav’ring, melancholy,
Thou dread’st and hope’st, thou knowst not what.

Prior.

Ah! fleeting spirit! wand’ring fire,
That long haft warm’d my tender breast,
Milt thou no more this frame inspire?
No more a pleasing charming guest!
Whither, ah, whither art thou flying?
To what dark undiscovered shore?
Thou seem’st all trembling, wav’ring, dying,
And wit and humour are no more!


Adrian I. Pope, succeeded Stephen III. in the papal chair, A. D. 772. He was the son of Theodore, a Roman nobleman, and possessed considerable talents for business. He maintained a steady attachment to Charlemagne, which provoked Dafidarius, king of the Lombards, to invade the state of Ravenna, and to threaten Rome itself. Charlemagne recomposed his attachment, by marching with a large army to his succour; and having gained many considerable advantages over Dafidarius, and recovered the cities which he had taken, he visited the pope at Rome, confirming the grants made by his father Pepin, to which he added new donations, and formed a perpetual league of friendship between the growing power of France and the established supremacy of the Western Church. On this occasion he expressed his piety, by the humiliating ceremony of killing each of the fies, as he ascended to the church of St. Peter. Pavia, during this visit, had been left in a state of siege; on his return it surrendered, and the dynasty of the Lombard princes, which had lasted 206 years, was terminated in the year 776. When fresh disturbances occurred by the interference of the bishop of Ravenna, who claimed and seized the exarchate and the dukedom of Ferrara, which Charlemagne had restored to the pope; this prince renewed his visit, and settled the affairs of Italy. In return for these services, he obtained the title of king of the Lombards, and the rights of temporal sovereignty in the territory of the Roman see. Adrian now directed his attention to the affairs of the church: and as Irmen, who, in 783, assumed the regency at Constantinople, during the minority of her son Constantine, wished to restore and establish the worship of images, the applied to Adrian for his concurrence. The pontiff readily acquiesced in her proposal for calling a council, and commissioned two legates to attend it. The council, however, which held its first meeting in 786, was disturbed by an insurrection of the citizens. At the next meeting in the city of Nica, in 787, which was protected by a military force, a decree was passed for restoring the worship of images. Adrian approved the decree, but in the western church it was deemed heretical and dangerous. Charlemagne condemned the innovation, and the French and English clergy concurred in opposing it. A treatise, containing 120 heads of refutation, was circulated, as the work of Charlemagne, under the title of "The Caroline Books," in opposition to the decree of the council. This work was presented to the pope by the king’s ambassador, and the pope wrote a letter to Charlemagne by way of reply. The king, and also the Gallican and English churches, retained their sentiments; and, in 794, a council was held at Frankfort on the Maine, consisting of about 300 western bishops, by which every kind of image-worship was condemned. Adrian did not live to see a termination of this contest; for after a pontificate of nearly twenty-four years, he died in 795. This pope does not appear to have possessed any considerable erudition, and few examples occur, during his pontificate, of ecclesiastical reformation. He seems to have directed his chief attention to the embellishment of the churches, and the improvement of the city of Rome; and he was probably furnished by Charlemagne, out of the plunder of his conquests, with ample means for this purpose. The king was much attached to him, and is said to have shed tears on occasion of his death. He wrote his epistle, which is still seen in St. Peter’s at Rome, in thirty-eight Latin verses. Dupin, vol. v. p. 115. Bower, Gen. Biog.

Adrian II. Pope, succeeded Nicholas I. A.D. 867.

Having twice refused the dignity, he accepted it in the 78th year of his age, at the united request of the clergy, nobility, and people. The contest for power between the Greek and Latin churches had been very violent some years before his accession to the papal chair. Photius, who, in 858, had been appointed patriarch of Constantinople by the emperor Michael, had been excommunicated by pope Nicholas I., in a council assembled at Rome in 862; and the pope himself had been, in 866, excommunicated by Photius. The pope, in order to avenge the injuries which Ignatius, who had been deprived of the patriarchate and exiled, demanded the restitution of several Greek provinces, which the patriarch of Constantinople had separated from the jurisdiction of the Roman pontiff. Basil, the new emperor, recalled Ignatius to the dignity of patriarch, and excommunicated Photius in a monitory. The restoration of Ignatius was approved by a council held at Constantinople, in 869; and by the decree of this council, the disputes between the Greek and Latin churches were suspended. But circumstances occurred which served to revive them. The Bulgarians had applied to this council for information, whether they should be subject to the church of Rome, or that of Constantinople. The council which this question produced, terminated in favour of the patriarchate; and Ignatius expelled the Latin missionaries from Bulgaria, and appointed Greeks in their room.

Adrian, during this contest for power with the eastern patriarch, was extending his authority over the kings and princes of the west. He employed his whole interest to induce Charles the Bald, who had taken possession of the kingdom of Lorraine, and who had been crowned at Rheims by the archbishop Hincmar, to relinquish it in favour of the emperor; and he even went legates to the king, after having attempted to engage Hincmar, the clergy, and the nobility to dexter him, ordering him to surrender to the emperor’s right. The king was invincible; and the pope was obliged to give up the contest. He also far further interfered in the concerns of princes, by taking Charles’s rebellious son Carloman, and the younger Hincmar, bishop of Lzon, under the protection of the Roman see. He proceeded in this business so far, that he was under a necessity of submitting without gaining his point. Bulgaria again claimed his attention, and he wished to restore the jurisdiction of it to the see of Rome. But death terminated his ambitious projects and his life of inquietude, A. D. 872, after a pontificate of five years. Dupin’s Ninth Century, vol. vii. p. 179. Molheim’s Eccl. Hist. vol. ii. p. 354, &c. 8vo.
ADRIAN III. Pope, succeeded Marinus, A.D. 884.

This pope, desirous of emancipating Italy and the papal see from their dependence upon the emperor of Germany, palied a decree, that, if Charles should die without male issue, the title of emperor should be belloved only on natives of Italy, and that the authority of the emperor should be disregarded in the creation of a pope. Basil attempted to persuade Adrian to annul the excommunication of his predecessor against Photius, but did not succeed. The pope died in his way to the diet at Worms, in 885. Bower.

ADRIAN IV. Pope, the only Englishman who ever had the honour to sit in St. Peter's chair. His name was Nicholas de Breuil, or Breuil; and he was born towards the close of the eleventh century, at Langley, near St. Alban's, in Hertfordshire. His father, being poor, and having assumed the habit of the monastery of St. Alban's, was unable to provide for him. Being refused the habit for which he applied, he went to Paris, where he was distinguished both by his application and proficiency. From Paris he removed to the monastery of St. Rufus, in Provence; here he became a regular clerk; and upon the death of the abbot in 1157, he was chosen superior of that house, which he rebuilt. Of this dignity he was deprived in consequence of the complaints and accusations of the monks, who were dissatisfied with the government of a foreigner: but pope Eugenius III., having heard their charges, and his defence, declared him innocent, and advanced him, in 1164, to the higher situation of cardinal bishop of Alba. In 1168 he was sent as apostolical legate, to Denmark and Norway, where, by his diligent instruction, he converted those barbarous nations to the Christian faith; and it is said that he erected the church at Uppsala into an archi-episcopal see. Upon his return to Rome, he was much honoured by the pope and cardinals; and on the death of pope Anacletus, who had succeeded Eugenius, he was unanimously chosen to the papal chair in November 1154, and assumed the name of Adrian. As soon as the news of his promotion reached England, Henry II. sent a deputation of an abbot and three bishops to congratulate him on his election; and upon this occasion he granted considerable privileges to the monastery of St. Albans. But he refused the valuable presents which they offered him, saying jocosely, "I will not accept your gifts, because, when I wished to take the habit of your monastery, you refused me." To which the abbot pertinently and sharply replied; "It was not for us to oppose the will of Providence, which had defined you for greater things." In the next year he gave Henry leave to undertake the conquest of Ireland, and sent him a bull for that purpose, in which he testifies his approbation of the object of the expedition, and the enlargement of the Christian church, and commands the people of that country to acknowledge him as their sovereign lord. He reminds the king, at the same time, of the rights of the Christian church; claiming all the islands which embraced Christianness, as St. Peter's right, and belonging to the holy Roman church; and exhorting to the regular payment of the Peter pence which he had promised. He admonishes him also to use his endeavours for reforming the manners of the people, and to commit the government of the churches to able and virtuous persons, so that he might thus deserve an everlasting reward in heaven, and transmit a glorious name to posterity. Adrian's indulgence to this prince was so great, that he consented to absolve him from the oath he had taken, not to set aside any part of his father's will.

In the beginning of his pontificate he constrained the magistrates of Rome to abdicate the authority they had assumed in their efforts to recover the ancient liberty of the people under the emperors, and to leave the government of the city to the pope. In 1155 he drove the heretic Arnold of Brescia, and his followers, from Rome. He also excommunicated William king of Sicily, who ravaged the territories of the church, and abdosed his subjects from their allegiance. In his interview with Frederick king of the Romans, with whom he concluded a peace when he invaded Italy, this prince condescended to hold his presence whilst he mounted his horse; in consequence of which Adrian conducted him to Rome, and placed the imperial crown on his head in St. Peter's church, to the great mortification of the Roman people, who affixed tumultuously and killed several of the imperialists. The Sicilian king, having taken an oath not to prejudice the church, was honoured by Adrian, in 1156, with the title of the King of the Two Sicilies. This pope built and fortified several castles, and left the papal dominions in a more powerful and flourishing condition than he found them. However, he complained of the disquietudes attendant on his high station; and in a letter to his old friend John of Salisbury, he says, that St. Peter's chair was the most meanly seat in the world, and that his crown seemed to be clapped burning on his head. He died, September 1, 1159, in the fourth year and tenth month of his pontificate, and was buried in St. Peter's church, near the tomb of his predecessor Eugenius.

Dr. Croke informs us, that he allowed his mother to be maintained by the alms of the church of Canterbury. There are extant several letters written by pope Adrian, and some homilies. Dig. Brit.

ADRIAN V. Pope, a Genoese, whose name was Ottoboni Fieschi, succeeded Innocent V. A. D. 1276. He was created by his uncle Innocent IV. cardinal deacon of St. Adrian, and in 1255 sent by him to England, to settle the disputes between Henry III. and his barons; and he was employed again for the same purpose, by Clement III. when he inflicted a sentence of excommunication against the king's enemies. To those who congratulated him on his accession to the papal chair, he replied, "I wish you had found me a healthy cardinal, rather than a dying pope." Immediately after his election he went to Viterbo to meet the emperor Rudolphus, for the purpose of opposing the usurpation of Charles, king of the Two Sicilies; but died soon after his arrival, having enjoyed his dignity only thirty-eight days. He zealously encouraged the crusade to the Holy Land, and upon his election sent a large sum to Constantinople towards building galleys; and he also furnished further supplies. Bower.

ADRIAN VI. Pope, was a native of Utrecht, the son of a tallowyer, or, as some say, of a brewer's servant. He succeeded Leo X. A. D. 1522. He was educated gratuitously at Louvain, and distinguished himself by his application and proficiency. Through the intercess of Margaret, widow of the duke of Burgundy, and sister of Edward IV. of England, he obtained the professorship of divinity in Louvain, the deanery of the cathedral, and the vice-chancellorship of the university. Having been appointed tutor to Charles, the grandson of Maximilian, and the young prince preferring arms to letters, Adrian was employed by the emperor on an embassy to Ferdinand king of Spain, in consequence of which he obtained the bishopric of Tortosa. When Charles was left sole heir to the dominions of Ferdinand, he appointed Adrian regent during his minority; but as Cardinal Ximenes had been named for this office by Ferdinand, they both united, in the government of the country. Ximenes, however, was the real, and Adrian merely nominal regent. In 1517 the emperor Maximilian
Maximilian recommended Adrian to Leo X. and he was preferred by that pontiff to the dignity of cardinal. In a contest with the Castrulls, when he fulfilled the office of regent during the emperor's absence in 1520, he attempted to enforce submission, by military power, but failed in the attempt; and he was under a necessity of withdrawing his forces, and to content himself with the mere shadow of authority. He was in a little time, and in manner very unexpected, removed from this unpleasing situation, and advanced to the highest dignity of the church. Upon the death of Leo X. in 1521, the conclave was divided about the choice of a successor. The younger members were attached to Julius, Cardinal de Medicis, the nephew of Leo; but the old cardinals were averse from choosing a pontiff out of the powerful family of the Medicis, and yet they were not agreed in their views with respect to any other person. By a maneuver, which was merely designed to gain time, the party of Julius voted for Cardinal Adrian in the preparatory scrutiny. The other party closed with them; and thus a stranger to Italy, and a man unqualified for the office, was elected, no less to his own surprize than to the alienation of Europe. The election was probably the effect of intrigue, and of the secret interference of the imperial ambassador, John Manuel, who wished to obtain a pope devoted to his master's interest. See Robertson's Hist. Charles V. vol. ii. p. 210, &c. 8vo.

Adrian's disposition, and views, as well as his principles and manners, were ill adapted to the office, that had been thus devolved upon him. At the time of his election Rome was afflicted with a pellicence, its finances were exhausted, and literature and the arts required liberal and judicious patronage. In these disadvantageous circumstances did Adrian ascend the papal chair. However he entered on his office with the best intentions. He began by avoiding every kind of expensive parade, and by exhibiting an example of moderation and temperance, which tended to correct and reform the dissolute manners of the court and city. He discouraged the ambitious and selfish expectations of his own relations, he annulled many ordinances which the cardinals had enacted for their own benefit, and he abolished many offices which Leo had created for the gratification of his favourites. With this pope it was a ruling maxim, that men were made for places, and not places for men. He restored the duchy of Urbino to its lawful proprietor, and surrendered to the Duke of Ferrara several places of which he had been unjustly deprived. He also issued a bull, requiring Christian princes to content to a truce for three years, so that the Imperial, French, and English ambassadors at Rome might deliberate on terms of pacification. Whilst he demanded a zealous execution of the imperial edict against Luther and his followers; he declared a disposition to exercise his spiritual authority for the reformation of the church. Notwithstanding the just claims on respect which resulted from the pontiff's general conduct, his battles actions were misunderstood; his excommunication was called parimony, his plans of reform were imputed to unceaseful austerity, and his disinterested conduct to weakness and inexperience. His unpopularity was partly owing to his being a stranger in Italy, and to the attention which he paid to some of his former friends, whilst he declined replying confidence in his brethren of the conclaves. He was also too much under the influence of Charles, and suffered his attachment to his former master to influence his judgment. This led him to relinquish his plan of a general pacification, and to form an alliance with the emperor and the king of England against France. On the day when this concordat was signed, Adrian was seized with a fever, which terminated his life; and the anxiety of his elevated station in December 1523, after he had possessed the papal dignity one year and ten months. He was buried in the church of St. Peter, and on his tomb was inscribed the following epitaph, which informs posterity, that the greatest misfortune which he had experienced in life, was, that he had been called to govern. 

"Adriam Pappi VI. hic situs est. Qui nihilibi inficiunt. In vita, Quam quadri imperat, ductus?"

Notwithstanding many excellencies that distinguished the character of Adrian, he was detestable of that firmness and energy of mind, which the duties of his high and arduous station required. Few men that have been so free from faults, incurred such unpopularity, and became obnoxious to so many censures. The door of his physician, in the night after his decease, was adorned with garlands, and marked with this inscription; "To the deliverer of his country." However such kind of approach, on the part of the dissolute and licentious, redounds to his honour. The piety of Adrian, it has been observed, was more distinguished than his taste for the fine arts. From the statue of Laocoon, he turned away his head in token of his dislike of pagan images, and he expressed his contempt of poets, by calling them "Tentamen." With theology and scholastic philosophy he was well acquainted. Whilst he was profector of divinity at Louvain he wrote "a Commentary upon the Book of Sentences," by Peter Lombard; "Epistles," and "Questiones Quodlibeticas," printed at Louvain in 1515, and at Paris in 1516 and 1531. Dupin's Hist. of the 16th century. Bower's Popes. Robertson's Hist. Charles V. vol. ii. b. i. p. 2. Gen. Biog.

ADRIAN, (De Callato) bishop of Bath and Wells, in the reigns of Henry VII. and VIII. and cardinal priet of the Roman church, was descended of an obscure family, and born at Cornetto, a small town in Tunfam. Having distinguished himself by his parts and learning, he obtained several employments at the court of Rome. In 1528, he was sent by pope Innocent VIII. as his Nuncio extraordinary, to appease the troubles in Scotland, and to execute the office of queller or treasurer to his holiness, in collecting his tribute or Peter pence. He was also agent for the English affairs at the court of Rome, and in the compence of his services, was promoted first to the see of Hereford in 1524, and afterwards to that of Bath and Wells. He favoured his bisporic and refided at Rome, where he erected, and which he bequeathed to Henry VII. whose name was inscribed upon the front of it, and to his successors. He was secretary and vicar-general to pope Alexander VI. and created by him in 1563, a cardinal priet, under the title of St. Chryfogous; soon after which event he narrowly escaped being poisoned at a feast, to which he was invited by the pope and his son Caesar Borgia. In the pontificate of Julius II. he banished himself from Rome; nor did he return till a concave was held for the election of a new pope. Soon after the elevation of Leo X. he concurred in a conspiracy against his life, and being unable to pay the fine of 12,500 ducats, which was the penalty inflicted upon him, he withdrew from Rome, and was excommunicated, and deprived of his benefices and ecclesiastical orders, July 6th, 1518. Four years before this period, he had been removed from his office of the pope's collector in England by Henry VIII. at the instigation of cardinal Wolsey, who employed him as his solicitor at Rome, and was betrayed by him in his attempts to obtain the dignity of cardinal. 
cardinal. After his condemnation, it is said that he took refuge amongst the Turks in Asia. Polydore Virgil extols his talents and learning, and says that he was the first since the age of Cicero, who revived the purity of the Latin language, and taught men to draw their knowledge from the sources of the ancient and most learned authors. Biog. Brit.

ADRIAN, a learned Carthaginian, who wrote a treatise intitled De Remediis utriusque fortunae, the first edition of which was published at Cologne in 1471, 4to. The book is scarce and much esteemed.

ADRIANA, in Ancient Geography, an episcopal city of the Hellenic period under the metropolis of Cyzicus.

ADRIANEUM, Moles Hadriani, the magnificent Mausoleum erected by Adrian in the later field of Mars at Rome, over against that of Augustus, and connected with it by a bridge. It is of a square form, and in the midst of it there is a lofty round tower. It served as a citadel when Rome was besieged by Visigoth kings of the Goths, and the Romans defended themselves by casting fragments of the statues upon their enemies. Here Adrian was buried and all the Antonines.

ADRIANI, Ioanni Ballista, in Biography, was born of a Patrician family, at Florence, in 1511. He wrote a history of his own times in Italian, beginning in 1536, and terminating in 1574, and designed as a continuation of Guicciardini, to which Thurnus (Hist. l. 68) acknowledges himself much indebted. He also composed six funeral odes, and is thought to have been the author of a long letter on ancient painters and sculptors, prefixed to the third volume of Vafari. He died at Florence, in 1579. Biog. Dict.

ADRIAN, in Ancient Geography, surnamed Ad ol olympium, a city of Aia Minor, in Bithynia.

ADRIANIDE, in Ancient History, a new tribe established by the Athenians in honour of Adrian, after the example of that which was formed in honour of Attalus, king of Pergamos, and comprehending the villages of Eleon, On, and Pugia.

ADRIANISTS, in Ecclesiastical History, a branch of Ambassadors, the disciples of Adrian Hamilethus, in the 16th century, who taught in Zealand, and afterwards in England. The Adrianists, besides the common dogma of arsabaptism, are said to have had some peculiar notions relating to the person of Christ.

Theodoret mentions a more ancient feft of this name, who were followers of Simon Magus.

ADRIANO-A-SIERRA, in Geography, a mountain of Guipuzcoa, in Biscay, one of the highest of the Pyrenees. It is crossed in the way from Biscay to Old Cañile.

ADRIANOPEL, or ANDRIANOPEL, in Geography, a city of Turkey in Europe, in the province of Romania, called anciently Osia, and now Edreze by the Turks, but deriving its name from the emperor Adrian, who founded or restored it. It is situated on the Hebrus or Maris, at the confluence of the Tunfa and the Harda, and rises gently on the side of a small hill. It is about five miles in circumference, says Chiuhull in his travels, p. 63. The form of it is circular, and it is surrounded with decayed walls and towers. The houses are generally built of mud and clay, and some of them of brick; and the streets are dirty and narrow. The bazaar or market place, called Ali Bajfa, is an arched building about half a mile long, with six gates, and a great number of shops that are occupied by Turks, Armenians and Jews. There is also another bazaar of meaner structure, about a mile long, containing many shops, and well flored with various commodities. And in another part of the town, there is a third market-place, called bizefken, covered like the former, and provided with a number of shops, in which are sold the manufactures of gold and silver, jewels, pearls, &c. There are four mosques, the principal of which is that of Sultan Schim, built by him of materials brought from the ruins of Famaguita, in the island of Cyprus. It is constructed like a theatre with one flatly room, terminating upwards in a cupola, and it is beautifully situated on the side of a hill, in the midst of the city. The emperor's kraflil ioands in a plain near the river Tunfa or Tungia. The grand vizier's palace is only a common house, after the Turkish manner of building, which is two miles in compass, and has seven gates besides those of the garden, which are several miles in circumference. The objects most worthy of attention are, the mosques, the roofs of which are covered with copper, having also lofty steeples and colonnades, with pedestals and Chapters of cult bazaars, beautiful marble gates of exquisite sculpture, delightful fountains, flately porticoes with gilded balls on the top, and curious metalry; all which exhibit a very grand appearance. The city, which is said to contain about 100,000 inhabitants, is under the government of a Mullah Cadi, who has an absolute authority in all civil and criminal matters. The commerce of this place, favoured by the river that waters it, has drawn hither people from all nations. It is now the residence of a Greek bishop, and the grand signior sometimes visits this city, either for pleasure or safety, when the plague or war makes it necessary for him to leave Constantinople. In 1550 Sultan Amurath first took it from the Christians, from which time it became the seat of the Turkish emperor, till Constantinople was reduced in 1458.

In 1754, it suffered greatly by fire. The adjacent country is very fertile, and supplies the town with all kinds of necessaries; and the wine in particular, is reckoned the best in Turkey. Chiuhull takes it to be that mentioned by Hefiod, in his Oper. and Dies. i. 2. v. 107, where he says,

\[\text{He constructed the temple of Juno in the city of Tarsus.}\]

This is the See of a Greek archbishop under the patriarch of Constantinople. N. lat. 41° 41'. E. long. 26° 27'.

ADRIANOPOULIS, in Ancient Geography, i.e. the city of Adrian, a name given to various cities in different countries, that were either built or repaired by the emperor Adrian. The number of these cities is not less than nine. The city of Thrace still retains its name.

ADRIANOPOLE, a city of Epirus, south of Apollonia. This assumed the appellation Justinianopolis, after the emperor Justinian.

ADRIANOPOLE, of Bithynia, in Asia Minor, called Boll, was situated upon the Bileus, west of Caria.

ADRIANO-THERA, Aednou Piri, Adrian's chace, or hunt, a city of Mylia, which retained its name in the fifth century, and which was founded by Adrian in a district of Mylia, whither he retired for the pleasures of the chase. His fountains for the sports was so great, that he erected monuments for his horses and hounds; and he composed an epitaph for his horse Beorlithenes, which he had often used in hunting. Dion. Cass. tom. ii. p. 1159. Ed. Reim. This is probably the same city with Adrianis, which was the birth-place of Arildides the Sophist. There was another Ariadne or Adrianopolis, in Lybia Cyrenaica.

ADRIANSEN, Alexander, in Biography, a painter who excelled in painting fruit, flowers, fish, and still-life, was born at Antwerp, about the year 1625. All his objects are well coloured, with an agreeable effect, from the judicious management of the chiaro scuro, and with a remarkable transparency. Pilkington's Dict.

ADRIANUM or ADRIATICUM MARE, now the gulf of
of Venice, in Ancient Geography, is a large bay in the Mediterranean, between Dalmatia, Scavonia, Greece, and Italy, and extending from south-east to north-west, between 46° and 55° N. lat., about 200 leagues long, and 50 broad. Its entrance between Cannia and Otrante, is about 14 leagues wide. It is called by the Greeks Ἀδριατικὰ κόλπα; Adria finsa; by the Latins variously, as Adria, by Horace, (lib. i. od. 3.) "Arbiter Adria nostris;" by Silius, (lib. i. v. 54. p. 6. Ed. Daven.ken.) "Hadricum pontum;" by Cicero, (in Pison. c. xxxviii. and lib. x. Attic. Ep. 7.) "Hadrinum mare;" by Virgil, (Æn. xi. v. 455.) "Hadracis undas." The Adriatic sea, says Hefeleius, is the same with the Ionian sea; and in order to solve a difficulty in the interpretation of Acts xvii. 7. and to answer the question, how St. Paul's ship, which was near Malta, and, therefore, in the Lybian or Sicilian sea, could be in the Adriatic; it is alleged, that not only the Ionian, but even the Sicilian sea, was called the Adriatic. Strabo (lib. vii. tom. 2. p. 488.) informs us, that the Ionian gulf is a part of that which in his time was called the Adriatic sea. Whitby Com. vol. ii. p. 751. The principal rivers that ran into the Adriatic were the Pannus, Apusus, the Laurus, or Æas, and the Ceydnus. The State of Venice claims exclusive dominion over the Adriatic sea, in consequence of a circumstance mentioned under Doge; and the ceremony of wedding it is annually practised in evidence of this claim, on Alfenesunday. Mr. Kirby, in his estimate of the temperature of different latitudes, p. 53, observes, that the Adriatic, though warmer in the summer than the Mediterranean, is so cold in winter, as to have been frequently frozen over in the neighborhood of Venice.

ADRICHOIUS, Christian, in Biography, was born at Delft, in Holland, in 1533; and having abridg'dly applied to study, he became director of the nuns of St. Barbara; but when the civil war broke out on account of religion, he withdrew first to Brabant, and then to Cologne, where he began his work, intitled, "Theatrum Terrae Sanctorum," which was printed with maps at Cologne, in 1503. This work, besides a description of the Holy Land and of Jerusalem, contains a chronicle of the Old and New Testament, under the name of Christianus Crucius; and under this title, he published at Antwerp the Life of Chrift, and an oration, "De Chrilliana Beataudine," Adrichomius died at Cologne, in 1585, and was buried in the convent of the canons of Nazareth, where he had been for some years director. Biog. Dict.

ADRIEN, in Geography, a small town of the Low Country, in Flanders, on the river Dendre, two leagues from Antwerp, and four from Gand.

ADRIETTI, in Sea-language, denotes the slate of a vessel broken from her masts, and driven by the wind or waves.

ADVIN, in Geography, a small town of Upper Hungary, upon the river Sebëk, at the foot of the mountains of Vedra, and north-west of the great Waradn. E. long., 37° 30'. N. lat. 47° 9'.

ADRIS, in Ancient Geography, the name of a river in India, according to Ptolemy.

ADRIUS MORE, a chain of mountains which, according to Strabo, extended along Dalmatia, and divided it into the Mediterranean and Maritime.

ADROBICUM, a small place in Spain, on the bay called Magnus Portus.

ADROGATION, in Antiquity, a species of Adoption, whereby a person, who was capable of choosing for himself, was admitted by another into the relation of a son. The word is compounded of ad, to, and rogare, to ask; on ac-
the body, particularly the pores of the skin; and also to signify the styptic quality of medicines. See Astrignents.

AD TERMINUM qui spectabilis, is a writ of entry, which is a place where a man living, leased lands or tenement; for terms of life, or years, is, after the time expired, held from them by the tenant, or other stranger, who enjoys the same, and is entitled to the lettor. The same writ also lies for the lessor's heir.

ADUACA Tungusorum, in Ancient Geography, Tungur, a city of Gaul, the capital of the Tungri. It was called by Caesar Augustus, and by Ptolemy 

ADVENT, Adventus, in the Calendar, the time immediately preceding Christmas; anciently employed in pious preparation for the adventus, or coming on, of the feast of the Nativity.

Advent includes four Sundays, or weeks; commencing either from the Sunday which falls on St. Andrew's day, or that next before or after it, i.e. from the Sunday which falls between the 27th of November, and the third of December inclusive.—But it is to be noted, this rule has not always obtained.—In the Ambrosian office, there are six weeks marked for Advent; and St. Gregory in his Sacramentary allows five.

The first week of Advent, in our way of reckoning, is that wherein it begins; but it was anciently otherwise; the week next Christmas being supposed the first; and the numeration carried backwards.

Great authority was practised in the ancient church during this season.—At first they fasted three days a week; but they were afterwards obliged to fast every day, whilst the feast is frequently called in ancient writers, LENT, and Quadragesima S. Martini.

The courts of justice were at one time all shut.

Advent is also one of the times, from the beginning whereof, to the end of the octaves of the Epiphany, the solemnizing of marriage is forbid, without express licence.

ADVENTITIA eun, in Antiquity, an entertainment made by the friends of a person who had been travelling, or by way of welcome to his return. This was otherwise called eun aduentorius. Petronius.

ADVENTITIOUS, something accruing or befalling a person, or thing, from without.

Thus, adventitious matter is such matter as doth not properly belong to any body, but is casually joined to it.

Adventitious, in the Civil Laws, is applied to such goods as fall to a man, either by mere fortune, or by the liberality of a stranger, or by collateral, or direct, succession.

In this sense the word stands opposed to possessions, by which are signified such goods as descend in a direct line, from father to son.

Adventitious suffles, are foreign or extraneous ones, found incorporated with others, to which they do not properly belong. Such are sea-shells, &c.

AD VENTREM inficiendum, in Law. See Ventrem inficiendum.

ADVENTURE, an extraordinary and surprising enterprize or accident, either real or fictitious.

The word is French, and literally denotes an event, or accident.

Novels, romances, &c. are chiefly taken up in relating the adventures of cavaliers, lovers, &c.

ADVENTURE, Bill of, in Commerce, is a writing signed by a merchant, attesting that the property of goods shipped, or sent away in his name, belongs to another, the adventure or chance whereof the said person is to stand in a covenant to account to him for the produce of it.

ADVENTURE, in Geography, a name given by captain Cook to a bay in which he anchored, in the southern part of New Holland, called Van Diemen's land, and on the shores of which they were supplied with wood and water in great abundance. The bottom of this bay was found to lie in S. lat. 43° 25', and E. long. 147° 30'. It is an excellent harbour, having through the bay from 18 to 5 fathoms water, which gradually decreases towards the shore. The road also is safe, and sheltered from the north-east by Maria's islands. The variation of the compass, in 1778, was 5° 15' E.

ADVENTURE
ADVERB, Adverbium, in Grammar, a particle joined to a verb, adjective, or participle, to explain their manner of acting or suffering; or to mark some circumstance or quality exemplified by them.

The word is formed from the preposition ad, to, and verbam, a verb; and signifies literally a word joined to a verb, to show how, when, or where, one is, does, or suffers; as, the boy paints readily, writes ill; the house stands there, etc.

Not that the adverb is confined purely to the verbs; but because that is its most ordinary use; whence it becomes so denominated a verb. We frequently find it joined to adjectives, and sometimes even to substantives, particularly where those substantives signify an attribute, or quality of the thing spoken of; e. g. he is very fickle; he is truly king.

An adverb is likewise joined sometimes to another adverb, to modify its meaning; e. g. very dexterously, &c. Whence some grammarians chuse rather to call adverbs modificatives; comprising under this one general term, adverbs, conjunctions, prepositions, and even adjectives.

Adverbs are very numerous; but they may be reduced under the general classes of adverbs of time, place, order, distance, manner, relation, quantity, both continuous and disjunct, quality, manner, affirmation, negation, demonstration, interrogation, diminution, doubting, exception, and comparison.

In English, says Dr. Lowth (Gram. p. 112.), they admit of no variation, except some few of them, which have the degrees of comparison, as soon, sooner, soonest; and those irregulars, derived from adjectives in this respect likewise irregular, as very much, not very prudently. He observes, however, that the formation of adverbs in general with the comparative and superlative terminations seems to be improper; at least that it is now become almost obsolete, as e. g. fierer, stronger, hardiest, highest, rightest, though used by Hooker, Raleigh, Hobbes, and Shaftesbury. In poetry, comparative adverbs are sometimes allowable.

Adverbs are denominated by Mr. Harris attributes of attributes, or attributes of the second order; and he defines an adverb, a part of speech, the natural appendage of verbs, extending the signification of the word verb properly so called, to participate and adjectives. After explaining the general nature of adverbs as attributes of attributes, and enumerating their principal forms, among which he reckons intention and remission, he shows that adverbs may be derived from almost every part of speech, from prepositions as afterwiser, from participles, as knowingly, from adjectives, as virtuously, from substantives as expressly, and from proper names, as Soulicially. Adverbs, according to Gaza in his grammar, may be found in every one of the predicaments, and he thinks that the readiest way to reduce their infinitude, is to refer them by classes to these ten universal genera. The Stoics called the adverb by the name of Huios, with a view to its multiformal nature. Hermes, p. 192.
ADD

ADD

p. 192. 210. Mr. Horne Tooke, after noticing the condition that has perplexed grammarians with regard to the classification of adverbs, and excluding them, as well as particles, from the rank of sepa-rate parts of speech, has with great ingenuity investigated the origin of many of the English adverbs in the ancient Saxon and other northern tongues, and evinced them to be either corruptions of other words, or abridgments of sentences. The termination "ly," is easily discovered in the corruption of "like;" thus honestly is honestly.

He also resolves adverbs into the past participle, of adrian: asleep, into the participle aspoused: age, into agone: or gone; afar, into afar or separated.

To not, he deduces from cotum to know; as adjective and adverb in Latin are abbreviations of wider-bred and fire-bred.

Need is resolved by this very vagacious writing into need it: even in one: i.e. infant; alone and only into all-one and one like; allow into on-lin or in life: abside into the noun side and the article a i.e. a side or a time; as'affort i.e. attach, into the Saxon Hurkles: time, that: asleep or on left into on-left, left in the Anglo-Saxon signifying the air, so that asleep denotes up in the air. Lot is the imperative of look, and lief is the adjective leaf, dear. With respect to the adverbs of affirmation and negation, he observes that yes or yea is the imperative of a verb of negative extraction, viz. of the Danish jeg, signifying have, possess, or enjoy; yea is a contraction of or as q. d. have or possess that: was in Danish jeg is to possess, and yea denotes yea or yea. In Swedish the same verb is ega and the imperative ja, yeh or yeh. In German, ja signifies yea or yea. In Dutch, jegens is to possess, and ja as yea.

As to the negative not, and its abbreviation no, they are derived, by Greenwood, from the Latin, by Minshew from the Hebrew, and by Janis from the Greek. But Mr. Tooke discovers them in the Danish and Swedish nodde, and in the Dutch nade, nade and no, which signify ascertain or unwilling.

The adverbs ones, twice, three, says Mr. Tooke, are merely the genitives of one, two, three, the substantivite time or turn being omitted; and were formerly written ones, twices.

An ingenious writer suggests that adverbs seem to be principally produced from three fources: first, from a species of interjection, denoting an impulse of the mind, as now, then, not, &c.; secondly, from a composition of two or three words into one, as always, altogether, &c.; and thirdly, from adjectives, by adding a syllable void of significition, but which seems to denote that the word has changed its state into that of an adverb, as greatly. This argumentive syllable was originally a contraction of some word that denoted simultude or participation. Gregory's Effays, Hiftorical and Moral. EJEA HTEPONTA.

or, Diversions of Purkey, p. 494, &c.

In the Hebrew language, most adverbs, and particularly those of quality, are expressed by nouns, both substantive and adjectives, either simply or connected with a preposition: as הָבָּא, הָלַע, הָלְכוּ, מַלְכוּ, וַתִּשְׁלַח, ךָלֵב, וְתַחְפִּית מַשָּׁה. Thus, also in the Chaldee language, הָלֹא denotes depict, and וְהָרֹּא הָרֹא denotes confederate.

In the Syriac, adverbs of quality are formed of adjectives, and terminate in וָא, as וְהָרֹא בָּא, הָרֹא הָרֹא בָּא, and וְהָרֹא הָרֹא בָּא, and frequently of nouns with a preposition adjoined, as וְהָרֹא וְהָולַע, וְהָרֹא וְהָולַע, וְהָרֹא וְהָולַע, וְהָרֹא וְהָולַע, and sometimes adjectives are substituted for adverbs, as וְהָרֹא וְהָולַע. In Hebrew the repetition of one adverb, or another of the same meaning, denotes the superlative, as וְהָרֹא וְהָולַע וְהָרֹא וְהָולַע וְהָרֹא וְהָולַע, i.e. wohle wohle, wohle. I. v. 26. This form of expression is used distributively, as וָרֹא וְהָולַע וָרֹא וְהָולַע וָרֹא וְהָולַע, wohle wohle, wohle. Exod. xvi. 21. Adverbs of place repeated, signify diversity of place, וְהָרֹא וְהָולַע וְהָרֹא וְהָולַע. Exod. xii. 2. The adverbs וָרֹא וְהָולַע, wohle wohle, wohle, often change the future into the preterite, both perfect and imperfect: as Deut. iv. 41. Exod. xii. 34. Adverbs of time, that are definite, are used indefinitely: as וְהָרֹא וְהָולַע וְהָרֹא וְהָולַע, on yesterday, for past time in general.

2 Sam. xv. 2. If. xxx. 34. וְהָלַע וְהָולַע, this day, for the present time: as Pl. xcv. 7. וְהָלַע וְהָולַע, for future time, indeterminately: as Gen. xxx. 33. Hence Matt. vi. 34. The adverb וְהָלַע וְהָולַע, wohle wohle, wohle, is used for quotid, and quot is.

Exod. vii. 20. xxiv. 30. Hence וְהָלַע וְהָולַע, wohle wohle, wohle, denotes very often. See John xviii. 20. The adverb וְהָלַע וְהָולַע, wohle wohle, wohle, does not always exclude the time that follows the action which is spoken of. Pl. cx. i. xxvii. 2. Hence, and are derived the Hebrews that occur. Matt. ii. 25. xxviii. 29. Acts. iii. 21. Rom. v. 13. 1 Tim. iv. 13. Adverbs of negation prefixed to verbs are used in the same sense as the privative alpha of the Greeks; as וְהָלַע וְהָולַע, non sapiens, i.e. insipiens; וְהָלַע וְהָולַע, non fortis, i.e. infirmus. Prov. xxx. 25. Hence Matt. ii. 6. Rev. vii. 7. Absolute adverbs are used comparatively, as Joel ii. 13. Rev. viii. 10. Hence, and are derived the Hebrews that occur. Matt. x. 23. xxvii. 25. Acts v. 4. 1 Cor. i. 17. Ephes. vii. 12. On the other hand, comparatives are used for negative adverbs.


ADVERBDI, something relating to adverbs. We say an adverbial phrase, adverbal expression, &c.

ADVERBDI numbers are sometimes used to denote once, twice, thrice, &c.

ADVERSARIA, among the Ancients, was used for a book of accounts, like our journal or day-book.

Hence, adverbaria is sometimes also used among us for a common place book.

Adverbaria amounts to the same with apotloegraphia, επιστευματα, or memorials, and flands opposed to codes; the former being for occasional matters which were taken down hastily, from which they were afterwards transcribed into the latter, in a fair regular manner, for standing use. Marhof, Polyhist, lib. iii, cap. 1.

ADVERSARIA is also a title given to divers books, containing collections of miscellaneous observations, remarks, &c.
In which sense, adverbia amounts to much the same with various adjectives, various observations, commentaries, letters, books, &c.


devseria is also used for a commentary on some text or writing.

This was so called, because the notes were written on the adverb or opposite page.

adversary, formed of the Latin preposition ad, verbe, and serio, to turn. See antagonist.

adversative, in Grammar, a word or particle that expresses not only some difference, but some opposition, between what goes before and what follows.

Adversative disjunctives are distinguished from those that are denominated simple in this respect: as the latter merely disjoin or express a diversity, whereas the former disjoin with a consequent opposition, e.g. The proposition, "either it is day, or it is night," is a simple disjunctive; and an adversative is when we say, "it is not day, but it is night." Besides, the adversatives are definite; and the simple, indefinite. Thus, when we say, "the number of three is not an even number, but an odd," we not only disjoin two opposite attributes, but we definitely affirm one, and deny the other. But when we say, "the number of the stars is either even or odd," though we affirm one attribute to be, and the other not to be, yet the alternative is left indefinite. With respect to adversative disjunctives, it may be observed, that, though they imply opposition, there can be no opposition of the same attribute in the same subject; but the opposition must be either of the same attribute in different subjects, as "Brunus was a patriot, but Caesar was not;" or of different attributes in the same subject, as, "Corgius was a sophist, but not a philosopher;" or of different attributes in different subjects, as, "Plato was a philosopher, but Hippas was a sophist." The conjunctions used for all these purposes may be called absolute adversatives: but besides these, there are several others, recited by Mr. Harris, such as adversatives of comparison, expressed by the words than and as, which mark not only opposition, but that equality or excess, which arises among subjects from their being compared. Such also are adversatives adequate and inadequate, of which the principal are unles and although, e.g. "Troy will be taken, unless the Palladium be preserved." "Troy will be taken, although Hector defend it." Every cause, (says Mr. Harris) is either adequate, or inadequate, when it endures without being effectual, and so in manner is every preventive. Adequate preventives are expressed by such adversatives as unless: the inadequate are expressed by although. Hermes, p. 251-257.

On this subject, Mr. Horne Tooke, in his Divisions of Purley, has enabled us to form more clear, determinate and satisfactory ideas than those which were furnished by former grammarians. The opposition in adversative disjunctives, that has been usually referred to the conjunction but, is superseded to be marked by the words or sentences which are thus connected, and which have opposite meanings. Accordingly the ingenious writer abovementioned affixes two different acceptations to the word but, in the beginning and in the middle of a sentence. In the former case it is a corruption of but, the imperative of the Saxon verb baton, to bat, superadd, or supply: and in the latter it is a contraction of be-utan, the imperative of bewenden, to be out. This distinction is evinced by examples from ancient writers, one of which it will be sufficient to mention, taken from Gavin Douglas.

"But thy work shall endure in laude and glory, but spot or faulte condigne eterno memorie."

The meaning of this couplet is "superadd (to something said, or supposed to be said before) thy work shall endure in laude and glory, but (i.e. without) spot or fault.

Thus, in the definite adversative, "the number three is not an even number, but an odd," the opposition is not marked, at least directly, by the word but, but by the adjectives even and odd, which denote attributes in their own nature opposite: and the preposition, according to the first sense of the word but, will be synonymous with this, viz. "the number three is not an even number, superadd (it is) an odd number."

In the indecinite adversative, "the number of the stars is either even or odd," the word either is a distributive pronoun, and or is a contraction of the Saxon or, q.d. other, i.e. something different, and often contrary. As to the adversatives designated by Mr. Harris adequate and inadequate, and marked by the conjunctions unless and although, he leads us to conceive that the whole difference between them consists in this, that the expression of the one is more forcible than that of the other. Whereas, the meaning of unless is directly opposite to that of although. They are both verbs in the imperative mood: the former signifying take away or disjoin; and the latter allow, permit, grant, yield, affect. Accordingly the sentence, "Troy will be taken unless the palladium be preserved," is equivalent to re-polladum be preserved, i.e. the taking the palladium will be preserved as an alternative, not the preservation of the palladium. "Troy will be taken although Hector defend it." is the same as "Troy will be taken, allow Hector (to) defend it." The idea, therefore, expressed by unless is that of the removal of one thing to make way for another; and the idea expressed by although is that of allowing one thing to co-exist with another, with which it is apparently incompatible. The conjunction unless (says Mr. Tooke) even in the reign of king Elizabeth was written on, or or, and more anciently on, and or, and or is the imperative of the Angle-Saxon verb on, to disjoin or remove, the imperative of to, which is synonymous with off, is also used by some old writers, instead of unless. And this imperative has given to our language the adjectives hope, ruff, &c. i.e. disjoin hope, red, &c. The conjunction although (says the same writer) is compounded of all or all; and, although, though, but, or, in the vulgar pronunciation, thow, that, and that. This is evidently the imperative thow or that of the verb to, to, that, to, as in a translation of the same kind, and as a, as that by which ha, ta becomes back. This etymology is confirmed by considering, that anciently they often used all be, albeit, all bad, all were, and all give, instead of although.

adversator, in antiquity, a servant sent to wait his master's returning from supper, and attend him home. The rich had servants of this quality, to apprise them of any danger. Pausan, (Mort. iv. 474); and Terence, (Adelphi 12) refer to such persons.

adverse leaf. See leaf.

Advertisement, formed of advertere, to consider, in a general sense, an intelligence or information given to persons interested in an affair.

Advertisement is more particularly used for the brief account of articles of private or public concern, inserted in the daily, or other public papers.

By the statute of 25 Geo. II. cap. 36. and 28 Geo. II. cap. 19. the penalty of 50s. is inflicted on persons advertising a reward with no questions to be asked, for the return of things lost or stolen: and likewise on the printer.

By 21 Geo. III. c. 49. any person advertising any pub-
ADVICE. — To a small vessel employed to carry express or orders with dispatch.

AD VITAM aut culpa, denotes an office to be held so as to determine only the death or defunctuity of the possessor; or in other words, to be held quan diu f. bene electi. Stat. 28 Geo. 11. c. 7.

ADUGAK, in Geography, one of the Fox islands in the northern Archipelago.

ADULA, in Ancient Geography, a mountain of Rhetia, or the country of the Grifons, being a part of the Alps, in which are the fountains of the Rhone, Rhone, Nantzi, Tefnian Azar, and from which flows the Adra or Aduna. It is now called St. Gothard, and it is said to be the highest point of Europe. Strabo, Geogr. tom. i. p. 293.

Adula gives name to a country of the Alps between the Grifons, Swifs, Villafons, and Mihane. It is the highest part of the Alps, and comprehends the Crispans, Vogellberg, Gothard, Fourche and Grimmel.

ADUL, in Modern Geography, a mountain of Navarre in Spain, between Pomplos and St. Jean de Piz de port.

ADULARIA. See Felspar.

ADULOE or ADULUS, in Ancient Geography, a town of Ethiopia, built according to Paus. (i. vi. c. 34. tom. 2. p. 342.) by fugitive slaves of Egypt, and distant from its port on the Red Sea 20 stadia; and from the royal city of Axum about 50 leagues. They call it OphidIon Adulon, and the inhabitants Adilites. He represents it as the principal emporium of the Ethiopians, whence they exported ivory, the horns of the rhinoceros, the skins of the hippopotamus, and other articles of commerce. The monsium adilitanum, or the pompous imposition of the name of Ptolemy Egergetes belonged to the city. The bay adjacent to it in the Red Sea was called Sinus Adulon. It is now Erebus on the coast of Abax. The port of Adul, according to Dr. Vincent, in his Periplus of the Erythrean Sea, can be no other than the celebrated harbour and city of Maffiah, so well known by the accounts of the Jefuits and of Bruce, as the only proper entrance into Abyssinia. Two islands are also mentioned in the bay of Adul, which are those now called Sheikh Sidda and Talbouth, abounding in fish.

ADULLI, a village of the island of Orine in the Red Sea.

ADULLAM, in Scripture Geography, a city belonging to the tribe of Judah, in the southern part of this, towards the Dead Sea. Eusebius says it was a large town 10 miles from Balkhoris, castrum. Jo. xxv. 37-2 Chron. xi. 7. 8. S. 15. Sam. xxii. 1. 2.

ADULT, ADULTUS, formed from the verb adulescere, to grow up, an appellation distinguishing any thing that is arrived at maturity; and applied to plants as well as persons. An adult person is one who is arrived at years of discretion, and entered upon manhood, or the age of adolescence; and is old enough to have understanding and discernment.

Among Civilians, the appellation adult is applied to a youth between fourteen and twenty-five years of age.

In which sense adulescens is synonimous with juvencus adulescens.

ADULT, in Mythology, was an epithet applied both to Jupiter and Juno; the former being called Jupiter adulis, and the latter Juno adulis.

ADULTERATION, in a general sense, the act of corrupting, or debasing a thing that was pure, by some improper admixture.

The word is Latin, formed of the verb adulterare, to corrupt, by mingling something foreign to any substance. We have laws against the adulteration of coffee, tea, tobacco, sugar, wine, beer, brandy, wads, hair-powder, &c. See Stat. 13 W. III. cap. 5.—11 Geo. 1. cap. 30.—1 Geo. 1. cap. 46.—1 W. & M. cap. 34.—23 Eliz. cap. 8.—10 Anne cap. 26.—3 Geo. III. cap. 41.

For the method of detecting adulteration of liquors, see Essay, Proof, &c.

ADULTERATION of coin properly imports the making or casting of a wrong metal, or with too base or too much alloy.

Adulterations of coins are effected divers ways, as by forging another stamp, or inscription; by mixing impure metals with the gold or silver; by making use of a wrong metal, or an undue alloy; or too great an admixture of the basic metals, with gold or silver. Counterfeiting the stamp, or clipping and debasing the weight, do not properly come under the denomination of adulterating.

Evelyn gives rules and methods, both of adulterating and detecting adulterating metals, &c.

Adulterating is somewhat less extensive than defacing, which includes diminishing, clipping, &c.

To adulterate or deface the current coin, is a capital crime in all nations. — The ancients punished it with great severity: among the Egyptians both hands were cut off, and by the civil law, the offender was thrown to wild beasts. The emperor Tacitus enacted that counterfeiting the coin should be capital; and under Constantine it was made treason, as it is also among us. The adulterations of gems is a serious art, and the methods of detecting it no less useful. Nicholas, Lapid. p. 18.

ADULTERATION, in Pharmacy, denotes a fraudulent corruption of drugs, or medicines, by substituting ingredients of less value, for the sake of greater gain.

This practice the dealers in all the parts of medicine are but too well acquainted with. Pharmaceutical authors give numerous instances of adulteration, both in simple and compound medicines.

ADULTERATION of wine. See Wine.

ADULTRESS, a woman who commits adultery.

ADULTERER, in a general sense, denotes any thing which has been adulterated, or that is spurious, or counterfeited; and it is thus applied to a fraudulent balance, to debased and counterfeit coins, to a false key, and to supposititious writings.

ADULTERER, in the Civil Law, is particularly applied to a child sired from an adulterous amours, or commerce.

Adulterine children are more odious than the illegitimate offspring of single persons. The Roman law even refuses them the title of natural children; as if nature disowned them. Adulterine children are not easily dispensed with for admission to orders. Those are not deemed adulterine, who are begotten of a woman openly married, through ignorance of a former wife being alive. By a decree of the parliament of Paris, adulterine children are declared not legitimated by the subsequent marriage of the parties, even though a papal dispensation be had for such marriage, wherein is a clause of legitimation.

ADULTERINE guilds, in British History, denoted those guilds or corporations that were set up without warrant from the king, in opposition to warranted or lawful guilds, and under this denomination they were amerced to the king in 1180. 26 Henry II. See Guild.

ADULTERINE marriages, in St. Augustin’s sense, denote second marriages, contracted after a divorce.

ADULTERY, ADULTERIUM, (in Ancient Law Books called...
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called Adultery) a crime committed by married persons, against the faith pledged to each other in marriage, by having carnal commerce with some other; or even by a person not married, who has the same intercourse with another that is.

Moralists, and canonists, and divines, have distinguished several species of adultery; as,

Adultery, manifesta, that wherein the parties are caught in the fact, or, as some express it, re in re.

On such occasions, strangers, or people not interested in the family, have been allowed to accuse, and prosecute women for adultery, either if committed during a husband's long absence, or through his connivance.

Adultery, occult or secret, that kept concealed from the knowledge of the world, and only divulged to a confessor, or the like.—In the canon law this is most favourably dealt with; persons were admitted to penance for this, and absolved, who were refuted it for the open kind. Dugange.

Adultery, presumptuous, that which is only discovered or inferred from certain signs, or indications. Such are the parties being found in bed together, and cum suma atque.

Adultery, interpretative, or reputed, denotes an act which though not properly included under the denomination, yet is reputed as equivalent to it, and punished as such. Thus mixed marriages between Christians and Jews, or between a Christian man and a Jewish woman, are put by the laws of Arcadius and Honorius, on the footing of adultery.

So also second marriages are called by some, as Athenagoras, and St. Ambrose, an honourable or better sort of adulteries.

Adultery, improper, includes other extraordinary cases and species; such are the commerce with a woman only espoused, not actually married; with a married woman, who lives as a common whore; with a married woman, taking her for single; with a putative wife, or concubine, taking her for a real wife; and with a nun, who by her vows is deemed espoused.

Adultery, figurative, that intended only to represent, or pro- fess another fact, or convey some other infraction. This coincides with typical, or allegorical adultery, and stands opposed to actual. So the adultery of Mars and Venus is turned into an allegory by naturalists, moralists, and alchemists, &c.

Adultery, single, is that where only one of the parties is married, in contradistinction from double adultery, which is, where both parties are married. This distinction is familiar and important in the canon law; but was unknown to the jurisprudence of the Code and Pandects.

Adultery, incestuous, that wherein the parties are related within the third degree of consanguinity.

Adultery, illicit, that not prohibited by any express or known law.

It has been disputed whether adultery be malum in se, or only malum prohibitum, i.e. evil in itself, or only rendered evil, by virtue of positive laws and prohibitions. St. Ambrose and some others have maintained, that adultery was not criminal before the Mosaic law. Hobbes de Civ. cap. 6. § 16. Budd. Frag. lib. ii. cap. 4. See the close of this article.

It has been controverted, whether adultery may be lawfully committed in war, with the enemies' wives? The answer is in the negative, and the authorized practice of civilized nations is agreeable to this. It has also been a famous question, whether it be lawful for a woman to commit adultery with the consent of her husband, and for the procuring some great good to him? St. Austin apparently allows of it; at least, does not condemn it. De Serv. Dom. in Mont. lib. i. cap. 10. § 49. & De Civ. Del. lib. xvi. cap. 25.

It has likewise been a dispute, whether it be lawful for one of the parties married to commit adultery, with the consent of the other, for the sake of having children? Of which we have instances in Abraham, who, on this account, converted with Hagar; and likewise among the Greeks and Romans.

Pollman, a German professor, has a dissertation on the husband's right to alienate his wife's body to another's use.

Adultery, illicit, that which is expressly contrary to some obligatory law; such, according to the generality of sects, is all adultery, proper, improper, single, double, open, and occult; because of a natural bæsolch or turpitude in the thing, as well as its being a violation of conjugal faith, and injury to our neighbour.

Accordingly, punishments have been annexed to adultery in most ages and nations, though of different degrees of severity. In some it hath been capital, in others venial, and attended only with fictitious punishments. Some of the penalties are serious, and even cruel; others of a jocose and humorous kind.

Among the ancient Egyptians, adultery by consent, was punished in the man by a thousand lilies, given with rods; and in the woman, with the loss of her note. Nevertheless adulteries were not unfrequent among the Egyptians.

The Grecian laws express great indignation against adultery. In the earlier times of Athens, the punishment of adultery seems to have been arbitrary. In other parts of Greece, adultery was severely punished.

Rich adulterers were sometimes allowed to redeem themselves with money, and the fine, called mpyxtoxya, was paid to the injured husband: and it was customary for the father of the adulterer to return the whole dowry which he had received of her husband. Homer Odys. l. 1. v. 317. 329.

In the later times of Greece it was ordered by Draco, that he who caught an adulterer in the fact might impose on him any arbitrary punishment; and this law was confirmed by Solon. Nevertheless it appeared to have been highly impolitic, as it gave full scope to private revenge, instead of leaving the punishment to the State.

It was by the Grecian law further ordered, that if any one was injuriously confined upon suspicion of adultery, he should make his complaint by appeal to the Thesmophoria, which if they found justifiable, he should be acquitted, and his sureties discharged from their bail; but in case he was found guilty, the judges were to inflict on him what punishment they would, death only excepted; and the offender was obliged to procure friends to be responsible for his future chastity.

The Spartans, indeed, may in one sense be said to have tolerated adultery, since they laughed at those who thought the violation of the marriage-bed an insupportable affront: they allowed other men the liberty of embracing their wives, which freedom they took with others in their turn. Nay, even strangers, as well as citizens of Sparta, were allowed the same freedom with their wives. Yet we find that their kings were exempt from this custom, that the royal blood might be preferred unmixed, and the government remain in the same lineal descent.

But notwithstanding this liberty, which was founded on mutual consent, they accounted all other adulteries the most heinous crime in the world; and while they adhered to their ancient laws they were wholly strangers to them. Among the ancient Spartans the idea of infidelity on the
part of the women to their husbands would have appeared as strange as that of displaying the least regard to studied ornaments in their dress. And Lycurgus, it is said, did not enact any law against adultery, because no such crime existed in Sparta. See Plut. Oper. tom. 1. p. 49. tom 2. p. 289. Ed. Xylandr. Potter's Arch. lib. iv. cap. 12.

Plutarch tells us, that if any person discovered his father or daughter, while unmarried, in this crime, he was allowed by Solon's laws to sell her for a slave. If a husband surprised his rival in the act of dishonouring him, he might put him to death, or oblige him to torment to ransom his life; but if the wife had only yielded to force, he could demand no more than a pecuniary fine at the discretion of the judges, as violence in such cases was less to be dreaded than seduction.

In the heroic ages, adulterers were floned to death; and the punishment was called ᾠδος γενέους, a stone coat. Homer Iliad, I. 7. Adulteresses were never after permitted to adorn themselves with fine clothes; and in case they appeared so to do, were liable to have them torn off by any that met them, and likewise be beaten. The same liberty was permitted to any that found them in the temples, which were thought to be polluted by the admission of persons so infamous and detestable. Lastly, their husbands, though willing, were forbidden to inhabit any longer with them, upon pain of ignominy, μακρός; but persons who prostituted women, were adjudged to die.

There were other remarkable punishments for adulterers among the Grecians; such, particularly, as putting out their eyes. And the Locrians observed this custom in later ages, being compelled to the observance of it by Zaleucus, their lawgiver, whose rigor in executing this law is very remarkable; for having caught his son in adultery, he resolved to deprive him of his sight, and remained a long time inexorable, notwithstanding the whole city was willing to remit the punishment, and requested him to spare the youth. At length, unable to reft the people's importunity, he mitigated his sentence, and redeemed one of his son's eyes, by cauing one of his own to be put out; by this glorious act setting a memorable example both of justice and of mercy. Valer. Maxim. I. vi. e. 5.

At Gortyn in Crete, they punished adulterers after another manner; they were covered with wool, an emblem of the softness and effeminacy of their disposition, and in that dress they were carried through the city to the magistrate's house, who imposed a fine and sentenced them to ignominy, whereby they were in a manner deprived of all their privileges, and their share in administering the public business. Julian. Var. Hist. I. xii. e. 12. not. Perizon. tom. 2. p. 736. Ed. Gronov. For other punishments, see ONOBATIS and PARATILUS.

There are various conjectures concerning the ancient punishment of adultery among the Romans.

By a law of Romulus, of which Plutarch makes mention, a man had the liberty of turning away his wife, either for poisoning his children, counterfeiting his private keys, or for adultery. Thoug some maintain that it was made capital, by a law of Romulus, and again by the Twelve Tables. Others, that it was first made capital by Augustus; and others, not before the emperor Constantine. The truth is, the punishment in ancient times was very various, much being left to the discretion of the husband and parents of the adulterous wife, who exercised it differently, rather with the silence and countenance of the magistrate, than by any formal authority from him. Thus we are told, the wife's father was allowed to kill both parties, when caught in the fact, provided he did it immediately, killed both together, and, as it were, with one blow. The same power ordinarily was not indulged the husband, except the crime was committed with some mean or infamous person; though, in other cases, if his rage carried him to put them to death, he was not punished as a murderer. On many occasions, however, revenge was not carried so far, but mutilating, cutting off the ears, noses, &c. were deemed sufficient. The punishment allotted by the lex judaica was not, as many have imagined, death; but rather banishment, or relegatio, with the loss, on the part of the wife, of half her dowry, and a third part of her other goods; and on the part of the husband, of half his goods: though Octavius appears, in several instances, to have gone beyond his own law, and to have put adulterers to death. But though the Julian law left the accusation of adultery open to every body, yet strangers were seldom suffere to prostitute, where the husband made no complaint; but where the husband made a trade of his wife's infamy, or having seen her shame with his own eyes, patienty suffered the infraction. In these cases, adultery became a crime of public concern; and the Julian law provides a punishment for such husbands as well as for their wives.

Under Augustus, the guilty parties, after the payment of heavy forfeitures and fines, were condemned to long or perpetual exile in two separate islands.

Under Macrinus, adulterers were burnt at a stake. Constantine, it is said by Noodt and others, hurt by law made the crime capital. Under Constantius and Constans, adulterers were burnt, or fewed in sacks, and thrown into the sea. Under Leo and Martinian, the penalty was abated to perpetual banishment, or cutting off the nose.

By the civil law, as altered by Julianus, who, at the instance of his wife Theodora, mitigated the severity of the lex judaica, adultery is punished with whippings, and shut up in a convent for two years: during which time, if the husband do not consent to take her back again, she is hanged, and shut up for life.—This is called authenticating, as having been established by an authentic.

In France, however, the whipping is omitted, that the husband may be the first averse to the taking her back within the two years.

Under Theodorus, women convicted of this crime were punished after a very singular manner, viz. by a public confinement; being locked up in a narrow cell, and forced to admit all the men to their embraces that would offer themselves. This custom was again abolished by the same prince.

It was controverted whether, among the Romans, adultery was allowed to be compounded?

By an edict of the emperor Antoninus, the husband was not allowed to bring an action of adultery against his wife, unless he himself were innocent; the reason given for it is very natural, per iniquum sin initietur ehe at pudicitiam vir et woman esset, quam in esse non esset.

By the Jewish law, adultery was punished by death in both parties, where they are both married, or only the woman. The Jews had a particular method of trying, or rather purging an adulterer, or a woman suspected of the crime by making her drink the bitter water of jealousy; which, if she were guilty, made her foal.

In Arabia Felix the punishment of adultery was death.


By the laws of Jenghiz Khan, founder of the Mogul empire, adulterers were condemned to death; and a man was permitted to kill them, when surprized in the act. Some of the people, however, disliked this law, because it was a custom with them to offer their wives and daughters to their friends who visited them, in token of respect and affection: and they petitioned to be continued in the exercise
of this privilege, which was allowed. But they were regarded as depraved and infamous.

Among the Magdelenians, adultery is punished with the forfeiture of a hog, which is usually eaten in good friendship between the gallant, the adulterers, and the cuckold. Chardin. Voy. tom. i. p. 47.

In some parts of the Indies, it is said, any man's wife is permitted to prostitute herself to him who will give an elephant for the use of her; and it is reputed no small glory to her, to have been rated so high. Montaigne's Lifs. lib. iii. cap. 4.

Adultery is said to be so frequent at Ceylon, that not a woman but practises it, notwithstanding its being punishable with death. Bibl. Univ. tom. xxviii. p. 237.

Among the Japaneese, and divers other nations, adultery is only penal in the woman. Among the Abyssinians, the crime of the husband is said to be only punished on the innocent wife. In the Marian Islands, on the contrary, the woman is not punishable for adultery; but if the man go astray, he pays severely; the wife and her relations wait his lands, turn him out of his house, &c. Among the Chineese there is reason to conclude, that adultery is not capital; for it is said that fond parents will make a contract with the future husbands of their daughters to allow them the gratification of a gallant. But without such precaution, the husband has power to inflict corporal punishment on a wife who transgresses, or to divorce her. Such, however, is the conjugal fidelity of the Chineese women, and so strictly are they guarded, that cases of this kind seldom happen. The Koran annexes the penalty of 100 stripes to the crime of fornication, in either sex; and in case of adultery, female slaves, whose punishment was half that of free women, received fifty stripes, and the latter were flogged. But in order to convict a woman of adultery, the commentators on the Koran say, that the charge must be supported by four male witnesses, and a false accuser was punished with eighty stripes, and his testimony was deemed for the future invalid.

In the kingdom of Benin, the punishment of adulterers among the lower classes, is the forfeiture of the personal and real estate of the gallant, which the husband seizes and enjoys; and he is therefore anxious to detect the intrigue, as soon as he has occasion to suspect it. The offending wife is driven out of the house with a cudgel, and deemed infamous. Among persons of superior condition, the crime is atoned by a sum of money, which the relations of the wife advance, to prevent the scandal annexed to adultery. Among the governors and magistrates, the crime is punished with greater severity. The woman and her gallant are immediately put to death, if detected in the fact; and their bodies are thrown on the dunghills as a prey to the birds and beasts, without process of law, or form of trial. Hence it is said, the violation of the marriage bed is less known in Benin than in any other country.

In Spain, they punished adultery in men by cutting off that part which had been the instrument of the crime.

In Poland, before Chrisitianity was established, they punished adultery and fornication in a very particular manner: the criminal they carried to the market-place, and there fastened him by the tethicles with a nail; laying a razor within his reach, and leaving him under a necessity either of doing justice upon himself, or of persisting in that condition.

By the law of Scotland, simple adultery is distinguished from that which is notorious and manifest. Open and manifest adulterers, who continue incorrigible, notwithstanding the censures of the church, are punished capitally. The punishment of simple adultery, not being defined by statute, is left to the discretion of the judge; but custom has made the falling of the single echeat one of its penalties.

The Saxons formerly burnt the adulterers, and over her altars erected a gibbet, whereon the adulterer was hanged. In this kingdom, likewise, adultery by the ancient laws was severely punished. By the laws of Ethelbert, any one who committed adultery with his neighbour's wife was obliged to pay him a fine, and buy him another wife. King Edmund the Saxon, ordered adultery to be punished in the same manner as homicide; and Canute the Dane, ordered that a man who committed adultery should be burned, and that the woman should have her nose and ears cut off. In the time of Henry I. it was punished with the loss of eyes and genitals. Lib. Hen. I. cap. 12. Doomsday, tit. Celfre. Civil.

Adultery at present is only punished by fine and penance in the spiritual court; or by an action at common law of crim. con. as it is commonly called, for damages; which are assailed by the jury, under the direction of the court, in proportion to the heinousness of the crime and the circumstances of the offender; though some of our law-books speak of adultery as a thing temporal against the peace. If a man takes another in the act of adultery with his wife, and kills him directly upon the spot, though this was allowed by the laws of Solon, as likewise by the Roman civil law (if the adulterer was found in the husband's own house), and also among the ancient Goths; yet in England it is not absolutely ranked in the class of justifiable homicide, but it is manslaughter. It is, however, the lowest degree of it; and therefore the court in such a case directed the burning in the hand to be gently inflicted, because there could not be a greater provocation. Blackft. Com. vol. iv. p. 192, 8vo. As to the adulterers, by our law, she undergoes no temporal punishment whatever, except the loss of her dowry; and she does not even lose that, if her husband is weak enough to be reconciled to her, and cohabit with her after the offense committed. 13 Ed. I. cap. 34.

It is to be observed, that adulteresses are such either by the Canon or Civil Law.

According to the former, a woman is an adulteress, who either being herself married, converts carnally with another man, or being single herself, converses with a man that is married.

According to the latter, she is not an adulteress, if she be not herself in the married state, though she converses with a man that is. The crime, in this case, was more properly called fornication than adultery.

Hence, among the Romans, the word adulteria, adulteress, differed from pellex, which denoted a single woman, who cohabited with a married man; and pellex differed from concubina, which signified her who had only intercourse with an unmarried man. The former was reputed infamous, and the latter innocent.

It is much disputed, whether adultery dissolves the bond of marriage, and be a sufficient cause of divorces, so that the parties may marry again. This was allowed in the ancient church, and is still continued in the Greek, as well as the Lutheran and Calvinist churches. Romanists, however, disallow of it, and the council of Trent even anathematized those who maintain it; though the canon of anathematization was mitigated in deference to the republic of Venice, in some of whose dominions, as Zant, Cephalonia, &c. the contrary usage obtains.

The ecclesiastical courts in England so far agree with the papists, that they only grant a divorce a mensa & thoro, in case of adultery; so that a complete divorce, a vinculo matrimonii,
ADULTERY

monii, to enable the parties to marry again, cannot be had without an act of parliament.

By a council of Nantes, marriage was declared dissolved by adultery, but the innocent party was not allowed second marriage. In after-times, leave was given to the innocent party alone; and afterwards the same was allowed to the criminal party.

Adultery, in a moral view, is unquestionably a crime of an atrocious nature, and productive of very injurious consequences. On the part of the man who solicits the chastity of a married woman, it includes the crime of seduction, and is attended with the same mischief. The infidelity of the woman is aggravated by cruelty to her children, who are involved in her flame and made unhappy by the discord and separation of their parents. Should it be said that the perversions consequent from the discovery, and not from the crime, it may be replied that the commission is never secure from discovery; and that if undetected consequences of this nature be allowed, the husband can have no security for his wife's chastity, independently of her principles and disposition, besides her want of opportunity or temptation; which would deter men from marrying, defeat the purposes of the conjugal connection, with respect to domestic order and happiness, and render marriage such a state of jealousy and alarm to the husband, as must end in the slavery and confinement of the wife. Besides, the vows by which married persons engage their mutual fidelity is witnessed before God, and accompanied with circumstances of religious solemnity, which approach to the nature of an oath. The crime is therefore little short of perjury on the part of the offenders; and the seduction of a married woman is little less than subornation of perjury; and this guilt is altogether independent of a discovery. The usual and only apology for adultery is the prior transgression of the other party. This is a circumstance which can merely extenuate, but cannot justify the crime; unless it could be pleaded, that the obligation of the marriage vow depends upon the condition of reciprocal fidelity, for which plea there is no foundation. The way of considering the offence of one party as a provocation to the other, and the other as only retaliating the injury by repeating the crime, is a childish trifling with words.

"Thou shalt not commit adultery," was an interdict delivered by God himself; and in both the Old and New Testament the crime of adultery is represented as distinct from, and accumulated upon that of fornication.

Some have been of opinion, that the history of the woman taken in adultery, recorded in the eighth chapter of St. John's Gospel, gives countenance to this crime. When Christ told the woman, "Neither do I condemn thee;" we must believe, it is said, that he deemed her conduct either not criminal, or not a crime, however, of a very heinous nature. A more attentive examination of this case (says Archdeacon Paley) will convince us that nothing can be concluded from it, as to Christ's opinion concerning adultery, either one way or the other. The design of the persons, whose conduct on this occasion is recorded, and who are said to have tempted Christ, "that they might have to accuse him," was to draw him into an exercice of judicial authority, that they might be empowered to accuse him before the Roman governor of using or intermeddling with the civil government. Christ knew this to be their design, and determined to defeat it. When he asked the woman, "hath no man condemned thee?" he spoke, and was understood by her to speak of a legal and judicial condemnation; otherwise her answer, "No man, Lord!" was not true. In the same sense he uses the word condemn in his reply "Neither do I condemn thee;" i. e. I pretend to no judicial character or authority over thee; it is not an office or business of mine to pronounce or execute the sentence of the law. When Christ adds, "neither do I condemn thee," he in effect tells her, that she had done already; but as to the degree or quality of the sin, or Christ's opinion concerning it, nothing is declared, or can be inferred in this way. — Paley's Principles of Moral and Political Philosophy, vol. i. p. 209-3.

Eliner (Obser. vol. i. p. 183.) and Sancier (Theor. vol. i. p. 205.) have shown, that the word συνεγκαίνοντα, to seduce, is used by the most elegant Greek scholars (as the corresponding word pecore is by the Latin) to signify the commission of adultery; and this strongly intimates, that even the light of nature taught many of the heathens the exceeding insufficiencies of it.

If Christ had undertaken the decision of the case recorded in this history, he must, ipso facto, have rendered himself obnoxious to the Romans, as well as to the Sanhedrim; and if he had condemned her, a new occasion of offence must have arisen, in consequence of that, to Pilate, if execution had been ordered without an application to him; and to the Jews, if Christ had directed such an application to be made. See Doddridge and other Commentators in loc.—and Lardner's Works, vol. i. p. 41, &c.

It is therefore needless to recur to the solution of the difficulty adopted by some biblical critics, who have disputed the genuineness of this passage. By such, however, it has been urged, that this history is wanting in the Syriac version, as well as in the Alexandrian and Bodleian copies, and indeed in most of the oldest MSS, and that it was not acknowledged by several of the Greek fathers, which induced Beza to question, and Le Clerc, with many others, to reject its authority. In favour of this history appeal is made to sixteen copies used by R. Stephens, to most of those consulted by Mills and Beza, to the Harmonics of Tatian and Ammonius, to the apologetical constitutions and the Synopsis of Athanasius, to many of the Latin fathers, to several ancient Syriac MSS. to the Greek and Latin printed copies, &c. Mills and Wetstein in loc. Whitby in loc. Fabricius's Codex Apoc. New Test. tom. i. p. 355, &c. See also Lardner's Works, vol. v. p. 67, &c. &c.

Adultery is also used in Ancient Customs, for the punishment or fine imposed for that offence, or the privilege of prosecuting for it.

In which sense, adulterium amounts to the same with what the Saxons called legerwita.

Adultery is sometimes used, in a more extensive sense, for any species of impurity, or crime, against the virtue of chastity: and in this sense divines understand the seventh commandment.

Adultery is also used, especially in Scripture, for idolatry, or departing from the true God, to the worship of a false one.

Adultery is also used in Ecclesiastical Writers, for a person's invading, or intruding into a bishop's pricke, during the former bishop's life. The reason of the appellation is, that a bishop is supposed to contract a kind of spiritual marriage with his church.

The translation of a bishop from one see to another was also reputed a species of adultery; on the supposition of its being a kind of second marriage, which, in those days, was esteemed a degree of adultery. This conclusion was founded on that text of St. Paul, Let a bishop be the husband of one wife, by a forced construction of church for wife, and of bishop for husband. Du-Cange.
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ADULTERY is also used, by Ancient Naturalists, for the act of ingrafting one plant upon another.

In which sense, Pliny speaks of the adulteries of trees, *arbutum adulterinm*, which he represents as contrary to nature, and a piece of luxury, or useless refinement.

ADULTERY is also used by some fanciful Astronomers and Astrologers, for an eclipse of the sun, or moon, happening in an unusual, and, as they suppose, irregular manner: as in the case of horizontal eclipses, where, though the sun and moon be diametrically opposite, yet they appear as if above the horizon at the same time.

ADUMBRATION, in Heraldry, denotes the shadow of any heaU or charge, outlined, and painted of a darker colour than the field. There is perhaps no instance of this bearing in any English coat; but it is often mentioned by French and German authors.

ADUMMIM, in Scripture Geography, a town and mountain in the tribe of Benjamin, which some place south and others north of Jericho. If, as some say, the road from Jerusalem to Jericho passed through this town, it must have been well of Jericho. Josh. xv. 7—xviii. 17. The mountain of Adummim, which Dr. Shaw alludes to the tribe of Judah, joins to the mountain of Quatrания, and through it, he says, is cut the road that leads from Jerusalem to Jericho; a difficult pass, the mountain of blood, or the bloody road, as the name may import: where probably it was, from the nature of the situation, that the man fell among thieves, mentioned in Luke x. 30. Shaw's Trav. vol. ii. 276.

ADUNA, a river of Susiana, mentioned by Pliny, tom. 1. p. 334.

ADUNICATI, a people of Gaul, in that part which was called the Roman Province.

ADVOCARIA, in Middle Age Writers, a tax paid the lord for his protection; sometimes also called salva-mentum.

ADVOCATE, Advocatus, compounded of ad, in, and vocare, to call, q. d. I call to my aid or defence, among the Romans, a person skilful in their law, and who undertook the defence of causes at the bar. The Roman advocates answered to one part of the office of a barrister among us, viz. the pleading part; for they never gave counsel, that being the business of the jurip-confutis.

The Romans, in the first ages of their state, held the profession of an advocate in great honour and respect; and the fees of their bar were crowded with senators and confusi: they, whose voices commanded the people, thinking it an honour to be employed in defending them.

They were styled comites, homenati, clarissimi, and even patroni; as if their clients were not left obliged to them, than freedmen to their masters. See Patron.

The bar was not at that time venal.—Those who aspired to honour and offices, took this way of gaining an interest in the people, and always pleaded gratis.

But no sooner were luxury and corruption brought into the commonwealth, than the bar became a shamer in them. —Then it was that the senators let out their voices for pay, and zeal and eloquence were fold to the highest bidder.

To put a stop to this abuse, the tribe Cincii procured a law to be passed, called from him Lex Cincia, whereby the advocates were forbid to take any money of their clients.

—Fred. Brunerius has published an ample comment upon this law.

It had before this been prohibited the advocates to take any present or gratuities for their pleading.—The emperor Augustus added a penalty to it, subjecting those who took money to the forfeiture of four times the sum they received: notwithstanding which, the advocates played their part so well, that the emperor Claudius thought it an extraordinary circumstance, when he obliged them not to take above 23s. many selleces as are equivalent to eighty pounds sterling, or upwards, for pleading each cause.

On occasion of Shilias's receiving four hundred thousand selleces, or about 3200l. from an illusrious knight, and afterwards betraying him, the leg cincta, received by Augustus, which prohibited advocates from receiving either money or presents from their clients, was enforced; and Claudius, it is said, allowed advocates to take as much as ten thousand selleces, or about 700l.; but if they took more they were to be prosecuted for extortion. This regulation passed into a law. Nero, in his first speech to the Senate, declared his purpose of reviving and enforcing the ancient laws, by which advocates were forbidden to receive fees. It was an apothegm of Thraesa, who suffered death under this Emperor, A. D. 66, that advocates should undertake only the causes of their friends, of people in difficulty, and such as might tend to set good examples and purify the morals. Pliny, Ep. vi. 29. Alexander Severus gave indulgences to the advocates in the provinces, provided he was well assured that they pleaded without being fed by their clients. But this injunction which disallowed advocates from receiving any thing of their clients was found to be impracticable in its utmost rigour. Accordingly, Constantine did not attempt to revive it; but he pronounces those advocates, who obliged their clients to make over to them the bulk part of their property in land, cattle, or slaves, or who prostituted their talents in this odious traffic, unworthy to be admitted into the company of honest men, and he excluded them from the bar. Cod. Theod. tit. 10. leg. 1.

ADVOCATE is still used in countries, and courts, where the civil law obtains, for those who plead and defend the causes of clients trusted to them.

In the English courts, advocates are more generally called counsel.

In Scotland they have a college, or Faculty of Advocates, about 200 in number, appointed to plead in all causes before the Courts of Session, Justiciary, and Exchequer. They are also intituled to plead in the House of Peers, and other supreme courts in England. A candidate for the office of advocate undergoes three successive trials; the first in Latin, upon the civil law, and Greek and Roman antiquities; the second in English, upon the municipal law of Scotland; and in the third, he defends a Latin thesis, which is impugned by three members of the faculty. Before he puts on the gown, he makes a short speech in Latin to the lords, and then takes the oaths to the government, and is called. From this respectable body of advocates all vacancies on the bench are generally supplied. In 1665, the faculty formed a library upon a very extensive plan, suggested by Sir George McKenzie, advocate to king Charles II., who enriched it with many valuable books. The collection has been gradually increasing, and it now consists of many valuable books on law and other subjects; several original MSS. and a great variety of Jewish, Grecian, Roman, Scots, and English coins and medals.

By the articles of the Union, none are to be named ordinary lords of session, except those who have been advocates, or principal clerks of session for five years, &c.

In France, they have also two kinds of advocates, viz. pleading advocates, advocats plaidsants; and counsel advocates, advocats confutans. This distinction was formed with a view to the two branches among the Romans, advocatus, and juris-confutatis.—Yet there is this difference, that the function of the juris-confutatis, who only gave their advice, was of a different kind from that of the advocatus, being a sort of private
and perpetual magistrature, principally under the first emperors; and the advocati never became jurisconsulti. Whereas, on the other hand, in France, after the advocates had attained to reputation and experience enough at the bar, they quit the busy province, and become a kind of chamber-counsellor. — They had also their advocate general, and king’s advocate, avocat du roy.

Advocate, Lord, or King’s, in Scotland, one of the eight great officers of state, whose business is to give his advice about the making and executing of laws; to defend the king’s right and interest in all public meetings; to prosecute all capital crimes before the judicature; and to concur in all pursuivets before foreign courts for breaches of the peace; and also in all matters wherein the king, or his donor, has interest. — He intends no precedents of treason, except by warrant of privy-council.

The lord advocate is sometimes an ordinary lord of seisin; in which case he only pleads in the king’s causes; otherwise, he is at liberty to plead in all causes.

He is the principal crown-lawyer in Scotland, and has the privilege of wearing his hat when he pleaches in court. The office of king’s advocate is not very ancient; having been established about the beginning of the 16th century. He had not originally the power of prosecuting crimes without the concurrence of a private party; but in 1597, he was authorised to prosecute crimes at his own instance.

Advocate of a city, or town, is a magistrate established in several places of Germany, for the administration of justice in that city, in the emperor’s name. See Advocate.

Advocate is more particularly used, in Church History, for a person appointed to defend the rights and revenues of a church or religious house.

The word advocatus, or advocate, is still retained, for what we usually call the patron, or him who has the advowson, or right of presentation, in his own name.

The abbeys and monasteries had also all their advocates, or advowsons. See Administrator.

There are several other kinds of advocates; as Advocate, confessor, is an officer of the court of Rome, whose business it is to plead on the oppositions made to the provisions of benefices in that court. There are ten of these in number.

Advocates, electors, those chosen by the abbot, bishop, or chapter, a particular licence being had from the king, or prince, for that purpose. The elections were originally made in the presence of the count of the province.

Advocates, feudal, were of the military kind, who, to make them more zealous for the interest of the church, had lands granted them in fee, which they held of the church, and did homage, and took an oath of fidelity to the bishop or abbot. These were to lead the vassals of the church to war, not only in private quarrels of the church itself, but in military expeditions for the king’s service, in which they were the standard-bearers of their churches.

Advocate, fisci, fisci advocatus, was an officer instituted by the emperor Adrian, to defend the cause and interests of the fiscus, or private treasury, in the several tribunals where that might be concerned.

Advocates, judicial, in the Middle Age, were those who from attending causes in the court of the comte, or count of the province, became judges themselves, and held courts of their vassals three or four years, under the name of the teria platica generalia.

In consideration of this further service, they had a particular allowance of one third part of all fines, or multas, imposed on defaulters, &c., which was called teria bannorum pars, teria denarius, teria pars compositionum, teria pars legum, or mandarum, &c.; besides a proportion of dict for themselves and servants.

Advocates, matricular, were the advocates of the mother or cathedral churches.

Advocates, military, those appointed for the defence of the church, rather by arms and authority, than by pleading and eloquence.

These were introduced in the times of confusion, when every person was obliged to maintain their own property by force; bishops and abbots not being permitted to bear arms, and the secolal or gowned advocates being equally unaccustomed to them, recourse was had to knights, noblemen, soldiers, or even to priests.

Advocates, nominatim, those appointed by a king, or pope. Sometimes the churches petitioned kings, &c., to appoint them an advocate; at other times this was done of their own accord. By some regulations, no person was capable of being elected advocate, unless he had an estate in land in the same county.

Advocates, regular, those duly formed and qualified for their profession, by a proper course of study, the requisite oath, subscription, licence, &c.

Advocates, subalternate, those appointed by other superior ones, acting under them, and accountable to them.

There were divers reasons for the creation of these subordinate advocates; as, the superior quality of the principal advocate, his being detained in war, or being involved in other affairs; but chiefly the too great distance of some of the church lands, and their lying in the dominions of foreign princes.

Advocates, supreme, or foreign, were those who had the authority in chief, but acted by deputies, or subordinate advocates. These were also called principal, greater, and sometimes general advocates. — Such in many cases were kings, &c., when either they had been chosen advocates, or became such by being founders, or endowers of churches. Princes had also another title to advocatechip, some of them pretending to be advocati nati of the churches within their dominions.

ADVOCATIA, in the Feudal Law, the procurement of some public business, committed by a superior to his subject.

Advocatia is also used for the patronage and protection of a church, college, monastery, and the like, in which sense it amounts to the same as adwows.

Advocatia is also used for the protection and defence of lay persons, estates, &c.

ADVOCATION, Advocatio, in the Civil Law, the act of calling another to our aid, relief, or defence.

Advocation, bill of, in Scots law, a writing drawn up in the form of a petition whereby a party, in an action before an inferior court, applies to the supreme court, or Court of Seison, for calling the action from the inferior court before itself.

Advocation, letters of, in Scots law, the decree or warrant of the Court of Seison, upon cognizance of the facts set forth in the bill, drawn up in the form of a summons, and passing under the signet, discharging the inferior judge, and all others from farther procedure in the cause, and advocating it to itself.

The grounds upon which these letters may be sought, are incompetency, comprehending defect of jurisdiction, and reasons for declining competent jurisdiction, arising from suspicion of the judge, or privilege in the parties; and iniquity, which happens when the judge delays justice, or pronounces sentence contrary to law. No cause for a sum below twelve pounds can be advocated from an inferior court to the Court of
of Seffion, unless the inferior judge be incompetent, in which case the cause may be removed from him by advocation, however inconsiderable the subject.

If after letters of advocation are intimiated to the judge, he yet proceeds, his decree will be null, as given fueri mandato.

MacKenzie, Init.

ADVOCATIONE Decimarum, a writ which lies for the claim of the fourth part, or upwards, of the tithe that belong to any church. Reg. Orig. 29.

ADVOCATURA, in Writers of the Middle and Barbarous Age, denotes an inferior kind of jurisdiction, exercised by advocates within the districts of their respective churches, &c. The word is sometimes used as synonymous with advocatio. Du-Cange.

ADVOWEE, in Ancient Customs, and Law Books, denotes the advocate of a church, religious house, or the like.

The word is otherwise written avouer, advouer, and avouer; sometimes advouer; being derived from avouer, to own, or acknowledge.

There are advowees of cathedrals, abbeys, monasteries, &c. Thus Charlemagne had the title of advowee of St. Peter's, and he is said to have been the first on whom this title of advowee was conferred by the pope, for having protected Italy and the church against the Lombards; king Hugh, of St. Riquier; and Baldwinus mentions some letters of pope Nicholas, for which he constituted king Edward the Confessor, and his successors, advowees of the monastery at Weilmünster, and of all the churches in England.

These advowees were the guardians, protectors, and administrators of the temporal concerns of the churches, &c. and under their authority were placed all contracts which related to them.

It appears also, from the most ancient charters, that the donations made to churches were conferred on the persons of the advowees. They always pleaded the causes of the churches in court, and distributed justice for them, in the places under their jurisdiction. They also commanded the forces furnished by their monasteries, &c. for the war; and even were their champions, and sometimes maintained duels for them.

This office is said to have been first introduced in the fourth century, in the time of Stilicho; though the Benedictiones do not fix its origin before the eighth century.

By degrees, men of the first rank were brought into it, as it was found necessary, either to defend with arms, or to protect with power and authority. In some monasteries they were only called congregatoris; but these without the name had all the functions of advowees. The imperial advowee was a magistrate formerly established by the emperors to administer justice, in their name, in the cities of the empire.

There were also sometimes several sub-advowees, or sub-advocates, in each monastery, who obligated instead of the advowees themselves; which, however, proved the ruin of monasteries; those inferior officers running into great abuses.

Hence also, husbands, tutors, and every person in general, who took upon him the defence of another, were denominated advowees, or advocates. Hence several cities had their advowees; which were established long after the ecclesiastical ones, and doubtless from their example. Thus, we read in history of the advowees of Augsburg, of Arras, &c.

The Vindarianes alluded the quality of advowees; and hence it is, that several historians of the eighth century confounded the two functions together.

Hence also it is, that several secular lords in Germany bear mitres for their crests, as having anciently been advowees of the great churches.

Spelman distinguishes two kinds of ecclesiastical advowees. The one, of canons, or procuresses, advocati canonarii; the other, of territory, or lands, advocati foli.

The former were nominated by the king, and were usually lawyers, who undertook to plead the causes of the monasteries.

The other, which still subsist, and are sometimes called by their primitive name, advowees, though more usually patrons, were hereditary; as being the founders and endowors of churches, &c. or their heirs.

Women were sometimes advowees, advocatissa. And, in effect, the canon law mentions some who had this title, and who had the same right of presentations, &c. in their churches, which the advowees themselves had.

In a flat. 25 Ed. III. we meet with advowee paramont, for the highest patron; that is, the king.

There are also advowees of counties and provinces.—In a charter of the year 1187, Berthold duke of Zerlinghen is called advowee of Thuringia; and in the Notitia of the Belgium churches, published by Mileus, the count of Louvain is styled count and advowee of Brabant. In the 11th and 12th centuries we also meet with the advowees of Albia, of Suabia, &c.

ADVOWING, or ADVOWING, ADVOCARE, in Law, see ADVOWEE.

ADVOWSON. See Advocatia.

Advowson, or Advouzen, in Common Law, signifies a right to present to a vacant benefice.

Advowson is so called, because the right of presenting to the church was first gained by such as were founders, benefactors, or maintainers of the church, viz. ratione fundationis, as where the ancestor was founder of the church; or ratione donationis, where he endowed the church; or ratione fundi, as where he gave the soil whereupon the church was built; and therefore they were called advocati. They were also called patronis, and therupon the advowson is called jus patronantis; and he who has the right of advowson is called the patron of the church. An advowson is, strictly speaking, an incorporeal hereditament: for it is not itself the bodily possession of the church and its appendages, but a right of giving to some other person a title to such bodily possession. The patronage can only be conveyed by operation of law, by verbal grant, either oral or written, which is a kind of invisible, mental transfer; and being so vested it lies dormant and unnoticed, till occasion call it forth: when it produces a visible, corporeal fruit, by entitling some clerk, whom the patron shall please to nominate, to enter and receive bodily possession of the lands and tenements of the church. 1. Inst. 119. Fleta, lib. v. cap. 14.

Though the nomination of fit persons to officiate in every diocese was originally in the bishop, yet they were content to let the founders of churches have the nomination of the persons to the churches so founded, referring to themselves a right to judge of the fitness of the persons so nominated. Gibb. ii. ed. 756.

Advowsons are of two kinds. 1. Advowson in gross, or a right subsisting in itself, belonging to a person, and not adhering to any manor or lands as parcels thereof. 2. Advowson appendant, which depends on a manor, as appurtenant to it. This will pass, or be conveyed, together with the manor, as incident and appendant thereto, by a grant of the manor only, without adding any other words.

Advowsons formerly were most of them appendant to manors, and the patron was parochial barons: the lordship of the manor, and patronage of the church, were seldom in different hands, until advowsons were given to religious houses.
heuses. But of late times the lordship of the manor, and
adwosmon of the church, have been divided.

Adowsons are also preseventive, collusive, or donative: pre-
sentive, where the patron presents or offers his clerk to the
bishop of the diocese, to be instituted in his church, if
he be found canonically qualified: collusive, where the
be
necise is given by the bishop, as original patron thereof, or
by means of a right he has acquired by buy, in which case
the bishop cannot present to himself; but he does by the
one act of collation or conferring the benefice, the whole
that is done in common cafes, by both presevation and
institution; donative, as where the king, or any subject by
his licence, founds a church or chapel, and ordains that it
shall be merely in the gift or disposal of the patron, subject
to his visitation only, and not to that of the ordinary,
and vested absolutely in the clerk by the patron's deed of
donation without presentation, instituition, or induction.

This is said to have been anciently the only way of confer-
If, as the law now stands, the true patron once waives this
privilege of donation, and presents to the bishop, and his clerk
is admitted and instituted, the adwoson is now become for
ever presentive, and shall never be donative any more.

Sometimes, anciently, the patron had the sole nomination
of the prelate, abbot, or prior; either by invitiation
(i.e. delivery of a pastoral staff,) or by direct presevation to
the diocesan; and if a free election was left to the religious,
yet a conge d'elire, or licence of election, was first to be ob-
tained of the patron, and the person elected was confirmed
by him.

If the founder's family became extinct, the patronage of
the convent went to the lord of the manor. Unles
the several colleges in the universities be restrained in the number of
adwosons they may receive; it is argued they will in
time acquire such a stock as to frustrate the design of their
foundation, (which is the education of youth,) by creating
too quick a succession of fellows; so that there will not be
in the colleges a sufficient number of persons of compet-
tent age, knowledge, and experience to instruct and form
the minds of the youth. In some colleges the number of
adwosons is said to be already two-thirds, or more, of the
number of fellows. It is objected, on the other side, that
the succession of fellows may be too slow, as well as too
quick; whereby persons well qualified may be detained so
long in colleges, as not to have strength or activity enough
left for the discharge of parochial functions.

Colleges holding more adwosons in number than a moiety
of the fellows, are not capable of purchasing more. Grants
of adwosons by patents are void. 9 Geo. II. c. 36. § 5.
11 Geo. II. c. 17. § 5.

Adwosons are temporal inheritances, and lay fees; they
may be granted by deed or will, and are afeets in the hands
of heirs or executors. The recovery of adwosons, as tem-
poral rights, was effectually provided for by one of the ex-
cellent regulations of Edward I. Before his time the law,
in this respect, was extremely deficient.

Presevations to adwosons, for money or other reward,
are void. 13 Elz. cap. 6. See Burn's Eccl. Law, vol. i.

Adwoson of the Moiety of the Church, is where there are
two several patrons and two several incumbents in the
same church, the one of the one moiety and the other of the
other moiety. A moiety of the adwoson is where two
must join in the presentation and there is but one incumbent.
See Stat. 7 Anne c. 18. In Scotland the right of ad-
wovon is called Patronage.

ADVOWTRY. See Adultery.

ADUR, in Geography, a river of Suffex that falls into
the sea at Shoreham, and admits ships of burden to go up to
the town.

ADUST, ADUSTUS, formed of adureus, to burn, among
Physician, &c. is applied to such humours, as by long heat
become of a hot and fiery nature.

Such is choler supposed to be. Melancholy is usually
considered as black and adult bile.

Blood is said to be a fad, when, by reason of some extra-
ordinary heat, its more subtile parts are all evaporated, leaving
the groffer, with all the impurities therein, half torrid.

ADUSTION, in Surgery, is the same as Cauterization,
and signifies the application of any substance to the
animal body, which acts like fire. See Cautery and
Caustic. The ancient surgeons, especiay the Arabians,
were remarkably fond of having recourse to scalding in local
diseases; but the use of actual heat is very rarely admitted
by the moderns. See Moxa.

ADUSTION, among Physicians, is used for an inflamma-
tion of the parts about the brain, and its membranes,
tended with a hollowness of the spinous and eyes, a pale
colour, and dryness of the body; in which case the yolk
of an egg, with oil of roses, applied by way of cataplasm is
recommended; as are the leaves of turnefol, the parings of
a gourd, the pulp of a pompon, applied in the same manner
with oil of roses.

ADY, in Natural History, a name given to the palm-tree of
the island of St. Thomas. It is a tall tree with a thick,
bare, uprign stem, growing single on its root, of a thin
light timber, and full of juice. The head of this tree shoots
into a vast number of branches, which being cut off, or an
incision being made therein, afford a great quantity of sweet
juice, which, fermenting, supplies the place of wine, among
the Indians.

The fruit of this tree is called by the Portuguese caryocce,
and caraffa; and by the black natives abanga. This fruit
is of the size and shape of a lemon, and contains a kernel,
which is good to eat. The fruit itself is cut roasted,
and the raw kernels are often mixed with mandioe meal.
These kernels are fuppofed very cordial. An oil is also pre-
pared from the fruit, which answers the purpose of oil, or
butter, in Europe.

This oil is also used for anointing swells and contra-acted parts
of the body. Ray.

ADYLISUS, in Ancient Geography, a mountain which
Pliny places in Bocotia.

ADYNA", in Medicine, formed of the primitive a,
dowos, strength, debility or weaknees from fieknes.
Accordingly Adynas, denote those affections of the
human body which form the fecond order of the fecond class
in the arrangement of Dr. Cullen, and which he defines to
be a diminution of the involuntary motions, which either vital
or natural. This is a distinct class in the diftribution of Vo-
gel. It comprehends the genera of syncope, dyspepsia, hypo-
condriasis, and chlorosis. Some naturalists place these under
debilites, and Linneas calls them quidates. See Nosology.

ADYNA MON, among Ancient Physicians, a kind of
weak factitious wine, prepared from must boiled down with
water; to be given to patients, to whom genuine wine
might be hurtful.

ADYRMACHIDE, or ADYRMACHITE, in Ancient
Geography, a people of Libya, inhabiting the sea-coast,
Near the Canopic mouth of the Nile. Herodotus (I. iv.
c. 168.) describes them as resembling the Egyptians in their
customs and manners. Silius Italicus refers to them, lib. iii.
**ÆA**

"Veriscolor contra extra, et felix ab arte.
Ennis Adymachidis, ac levo tegmina curae."

**ADYTUM,** a secret or retired place in the Pagan temples, where oracles were given, and into which none but the priests were admitted. Thus Seneca in his tragedy of Thry-ettes (iv. i. 679)."---Hinc ornatibus
Reponfa dantur certa, cum ingenti fono
Laxantur adyto fata."

The word originally signifies inaccessible; being composed of a, not, and box, or box, to enter.

The *Sactum Sinodorum* or *Holy of Holies,* of the temple of Solomon was of the nature of the Pagan adyton, none but the high-priest being admitted into it, and he but once a year, on the great day of expiation. After the Babylonian captivity this place wanted the ark, the mercy-seat, the felicitas of the divine presence, and the Urim and Thummim; the defect of these causing an imperfection in the Jewish worship, compared with the former state of it, a reformation of which is devoutly supplicated in the Jewish liturgy; particularly in the most solemn part of it which they call *Shemoneh Efreh,* or the eighteen prayers.

**ADZE,** or ** أدז,** a cutting tool, of the axe kind; having its blade made thin, and arching, and its edge at right angles to the handle; chiefly used for taking thin chips off timber or boards, and for paring away certain irregularities which the axe cannot come at.

The adze is used by carpenters, but more by cooperers, as being convenient for cutting the hollow sides of boards, &c. It is ground from a base on its inside to its outer edge; so that when it is blunt they cannot conveniently grind it, without taking its helve out of the eye.

**ADZEL,** in *Geography,* a mean place in the government of Riga, subject to Ruffia. N. lat. 56°. 30'. E. long. 38°. 5'.

**ADZENETA,** a small town of Valencia, in Spain, seated on the mountain *Pegna Golosa,* in which grow multitudes of excellent plants. N. lat. 45°. 30'. W. long. 0°. 16'.

**ADZUD,** a town of Moldavia in European Turkey, nine miles west-south-west of Bokhat.

**Æ,** or **Æ,** a diphthong, or double vowel, compounded of A and E.

Authors are by no means agreed as to the use of the æ in English words.—Some out of regard to etymology, insist on its being retained in all words, particularly technical ones, borrowed from the Greek and Latin; while others, from a consideration that it is no proper diphthong in our language, its sound being found not to be that of the simple e, contend that it ought to be entirely diffused; and, in fact, the simple e has of late been adopted instead of the Roman æ as in the word equator, &c.

**ÆA,** in *Ancient Geography,* a considerable and celebrated city and port of Colchis, near the river Phasis, and distant from the sea, according to Pliny, (H. N. i. vi. c. 4. t. i. p. 304.) 15 miles, but according to Stephanus (de Urb. p. 30.) more than 37 miles. It was encompassed by the rivers Hippos, so called from its rapidity, and Cyanos, so denominated from its colour, near their confluence in the Phasis, and thus formed into a kind of peninsula. Some have conjectured that it was the home of the *Æpolis* of Polemy; and that it derived its name either from the Greek æ, earth, or from the Hebrew *א, island.* The Ciree obtained the appellation of *Æa* from this city. See Homer's *Odyf. l. i. v. 32* and Virgil l. iii. v. 386. It is also repeatedly mentioned by Apollonius Rhodius, as a place to which the river was navigable. *Argonautic* l. i. v. 424.—1906. pp. 188. 250. Ed. Hoelzlin. Ovid likewise (in his *Metam.* l. vii. v. 9. tom. ii. p. 446. Ed. Burman.) speaks of the

"Validos Æctias ignes."

Tradition ascribes its origin to the famous Sesostris, king of Egypt, who, after having traversed the whole of Æa with his army, left a colony in Colchis, and there created pillars of stone upon which were engraved, according to *Apollonius,* the names and position of the countries through which he had passed. Pliny and Strabo also represent it as the abode of king *Æa,* and the theatre of the adventures of his daughter Medea. It had a temple dedicated to the god Mars, and another to Phryxsus. It was anciently famous for its gold and silver, and other metals, which might have given occasion to the *Argonautic* expedition, first by Phryxsus and afterwards by Jason. Strabo, *Geog.* tom. i. p. 38. &c. It is now *Lippotam.*

There was another town called *Æa,* in Thessaly; and a fountain of this name in Macedon.

**ÆÆA,** the name of an island, which Mela (l. ii. c. 7.) supposes to have been situated in the bay of Sicily; and to have been the habitation of Calypso: But he has probably confounded the name of this island with that of *Æa* above mentioned; and both the island of Calypso, or Ogygia, and that of Circe, or Æa, are far distant from the coast of Sicily.

**ÆACEA,** in *Antiquity,* solemn feasts and combats, celebrated in *Ægina,* in honour of *Æacus,* who had been their king, and who, on account of his singular justice upon earth, was suppos'd to have a commission given him to be a prince or judge, whose office it was to preside over Elysium, or the region of bliss. This *Æacus,* it is said, was the son of Jupiter and *Ægina*; and when his country was depopulated by a plague, he is reported to have obtained of Jupiter a supply of inhabitants, who, at his requit, converted ants into men; whence they were called Myrmidons, from *myrmex,* ants. The meaning of the fable seems to be that he drew them out of their caves into which they had retired for security, when they were invaded by pirates, and encouraged them to apply to agriculture and commerce; so that by their industry they recovered what they had lost.—See *Ægina.*

**ÆACUS,** in *Entomology,* a species of the *sphinx,* having six yellow points on the fore wings, and the latter yellow, with the margin of an azure colour. It is found in Austria.

**ÆAMENE,** in *Ancient Geography,* a country of the Nabathaens, in Arabia.

**ÆANA,** a city of Macedonia, founded by *Æanus,* son of Elymus, king of the Tyrrhenians, who, leaving his own country, inhabited Macedonia.

**ÆANIS,** a fountain of Locris, situated in the sacred grove called *Æanios lucus,* so called, according to Strabo, from a Greek named *Æanes,* who was killed there by *Patroclus.*

**ÆANITIS,** a country of the Nabathaens.

**ÆANTIDES,** a tribe of Attica, which comprehended six different people, viz. those of *Marathon,* *Æone,* *Phaede,* *Rhammus,* *Tiradea,* and *Tripolythus.*

**ÆANTIONUM,** or *ÆACUM,* a small place in *Æa,* upon a promontory north-west of *Rhathium.* Here, it is said, Ajax was buried. His statue found in this place, was taken away by Mark Antony, and restored by Augustus.

**ÆANTIONUM** was also a town and promontory of Thessaly, in the extremity of the peninsula, which contained Magnesia, opposite to Thebes of Thessaly, and at the entrance of the Pelagic gulf.

**ÆAS,** a river of Greece, which sprang from Mount Pindus, and flowed into the Adriatic sea, about 10 stadia from the city of *Apollonia.* This is supposed to have been the same with the river *Æous.* Strabo, tom. i. p. 486.
ÆAS, or AIAZ, a mountain of Egypt upon the Red Sea. 
ÆBUDÆ, a name given by ancient Geographers to the Western isles of Scotland. 
ÆBURA, a town of Spain near the Tagus, in the province of Caffile; now Tábara la Reina. 
ÆCÆ, a town of Italy, in Magna Græcia. 
ÆCCANI, a people of Tuscany, near the city, formerly called Æcas, to the South of Lucania, and now Troia. Phœn. H. N. tom. i. p. 168. 
ÆCHILIS, a people, who lived, according to Ptolemæus, in the northern parts of Sardinia. 
ÆCHMALOTARCHA, in Antiquity, a Greek term, signifying the chief or leader of the Jewish captives in Babylon. 
The Jews who refused to follow Zerubbabel, and return with him to Jerusalem, after the Babylonish captivity, created an Æchmalotarcha to govern them. The Jews, indeed, did not call him by this name, as some authors have asserted, for that people spake Hebrew, or Chaldee, and not Greek. But Oigens, and others who wrote in the Greek tongue, rendered the Hebrew name Ἐχμαλοταρχάς, q. d. chief of the captivity, by a Greek term, Ἐχμαλοταρχαῖος, formed from Ἐχμαλ, captive of αἰχμή, spear, and ταρχαῖος, commander or chief. 
However, the Jews seem to have had officers of this kind before the return from Babylon, as we may infer from the history of Susannah; the two elders who condemned her being supposed to have been Æchmalotarchæ that year. 
The Jewish writers allude us that the Æchmalotarchæ were only to be chosen out of the tribe of Judah. 
The eastern Jews had their princes of the captivity, as the western Jews had their patriarchs. The Jews are said still to have an Æchmalotarcha at Babylon, but without the authority of the ancient ones. One person of this description, elected from the house of David, was formerly acknowledged and honoured as a prince among the Jews, and had some sort of jurisdiction, as far as it was consistent with the government to which they were subject; and it was sometimes allowed and ratified by the reigning princes. But if such an officer now exist at Babylon or elsewhere, he is merely the head of the sect in that place, without sword or sceptre, or any power of coercion, or authority of jurisdiction, besides what he derives from the voluntary submission of the Jews, who inhabit such places. Nothing, therefore, can be more vain than the pretence of the Jews, that by this Æchmalotarcha, the sceptre and law-giver are preferred in the tribe of Judah; and that the prophecy of Jacob (Gen. xlix. 10.) is not yet fulfilled by the advent of the Messiah. 
ÆCIDIUM, in Botany, a genus of the cryptogamia fungi class and order; its characters are, that it has a membraneous sheath, smooth on both sides, and full of naked separate seeds. Gmelin enumerates 18 species, some of which belong to the Lycofìridon of other authors. Several of these are found on the leaves of other plants; and one of them is known to agriculturists by the name of the Red Gum. This species usually grows upon the inside of the glumes of the calyx, and of the exterior valvule of the corolla, under their epidermis; which, when the plant is ripe, bursts, and emits a powder of a bright orange colour. This little plant, says an ingenious observer, (Linnean Trans. vol. v. p. 122) does not appear to be materially injurious to the grain, if at all. He has seen ears full of it, with very plump kernels; and has also found it upon branded ears. Before the cuticle, which covers the seed of this fungus, bursts, it has very much the appearance of a pustule upon the human body. Other species grow on decaying wood and mosses, and in the leaves of tuftillago farfara and petalites, Barilia viscosa, and monile nemorosa, Adoxa mosaëtella, Carduus arvensis, and Betonica officinalis, &c. 
ÆCLUS, in Entomology, a species of Papilio, with the wings black above, cinereous beneath, waved with black, and with a yellow occluded spot. It is found in Ambony. 
ÆCULANUM, or Æcclus, in Ancient Geography, a town of the Hapnia, Italy, situate between Beneventum and Tarentum. The inhabitants are called Plinius (Annals i. p. 167.) Æclanii, and in an ancient inscription of Guter Æclanovæ. The town, according to Claudius, is now called Fractensis. 
ÆDEA, in Entomology, a species of Papilio, with wings spotted with white, the anterior greenish, the posterior marked with a yellow band; found in South America. 
ÆDELITE. See ZELITE. 
ÆDEPSI Therma, baths of Ædipus, in Ancient Geography, the name of a city in the island of Eubœa upon the western coast. The baths were consecrated to Hercules. 
ÆDES, in Antiquity, a chapel, or inferior kind of temple, distinguished by this, that it was not consecrated by the Angurs, as those properly called Temples were. Such was the erarium, or treasury; called Ædes Saturni. 
ÆDESIIUS, in Biography, the disciple and successor of Jabælius, lived in Cappadocia, and, after the example of his master, pretended to supernatural communications with the Deity, and practised theurgic arts. Of the events that occurred to him the most ludicrous is this: viz. That, in answer to his prayers, his future fate was revealed to him in hexameter verses, which suddenly appeared upon the palm of his left hand. Towards the close of his life, he committed his school at Cappadocia to the care of his disciple and friend Euflathius, and removed to Pergamus, where he had a numerous train of followers. Brucker's Hist. Phil. by Enfield, vol. ii. p. 75. 
ÆDICULA, in Antiquity, a term, denoting the inner part of the Ædes or temple, in which the altar and statue of the deity were placed; but the term had various acceptations. It sometimes denoted a low small building, or Ædes parva, consecrated to some divinity; it often signified a niche in the wall for receiving a statue, and those especially of the Lares or Penates; and sometimes the representations of temples, which were offered and suspended in the temples of the gods, and more especially in that of Diana of Ephesus. 
ÆDICULUS, in Roman Mythology, the deity who presided over the construction and consecration of buildings. 
ÆDILATE, in Antiquity, the dignity or magistracy of the Roman Ædiles. This is otherwise called Ædiles. In inscriptions we find it represented by the abbreviated ÆD. 
ÆDILE, ÆDILIS, in Antiquity, a Roman magistrate, vested with divers functions, chiefly that of superintending the buildings both public and private; as baths, aqueducts, roads, bridges, cauceways, &c. The word is formed of Ædes, temple, or house, on account of their having the care of temples, houses, &c. 
The Ædiles at Rome corresponded to what the Greeks called agoranomi, and ofynomi; they differed from scevnoni and archæis, who were rather receivers of the revenues; also from hologes, curatores, and pares civitatis. 
To the Ædiles belonged the inspection of the weights and measures. They fixed the rate of provisions, and took care the people suffered no exactions. The inquiry and cognizance of debauchees, and disorder in public houses, likewise belonged to them; they were also to revive comedies; and it belonged to them to treat the people with grand games and spectacles, at their own expense. They were likewise to attend on the tribunes of the people. 
To the Ædiles also belonged the custody of the plebeia, and the census and examination of books. They had the power,
power, on certain occasions, of infilling edicts; and, by degrees, they procured to themselves a considerable jurisdiction, the cognizance of various causes, &c.—This office ruined numbers by its expensiveness; so that in Augustus's time, even many senators declined it, on that account.

All these functions, which rendered the ediles so considerable, belonged at first to the ediles of the people, ediles plebis, or minores; these were only two in number, and were first created in the same year as the tribunes: for the tribunes, finding themselves opposed with the multiplicity of affairs, demanded of the senate to have officers, with whom they might intrust matters of less importance, and accordingly two ediles were created; and hence it was, that the ediles were elected every year, at the same assembly as the tribunes. These plebeian ediles continued in the sole possession of the office during the space of 127 years, from the year of Rome 267, when they were appointed, to the year 394. But these ediles having refused to celebrate the great games, on occasion of the reconciliation that took place between the Senate and people in consequence of the grant that one of their orders should be confidual, because the celebration was attended with an expense which they were unable to support, the Patricians offered to undertake the charge, upon condition that they should obtain the honours of the edilship. Their offer was accepted with gratitude; and the Senate passed a decree for the election of two ediles annually out of the order of the patricians. From this time there were two kinds of ediles at Rome; the one were called Plebeian Ediles; the other were called Ediles Curules, or Majori, i.e. Curule Ediles, because they had the right of sitting in a Curule chair, adorned with ivory, when they gave audience; whereas the plebeian ediles sat on benches; and this chair was placed in the chas-riot in which they were carried; a distinction annexed to the great offices of the commonwealth.

It is not easy to describe exactly the different functions of these two kinds of ediles. It is probable, however, that the curule ediles shared all the ordinary functions with the plebeian; but their principal and distinguishing office pertained, according to Cicero, in the list of his orations against Verres, (Opera t. 4. p. 524. Ed. Olivet.) to their presiding in the games celebrated in honour of different divinities, to the care of the sacred ediles, and to the civil government of Rome in general. They were also appointed judges in all cases relating to the selling or exchanging of allies. The distinctions which these ediles enjoyed were the right of giving their opinion in the Senate, not according to the date of their admission into that body, but a more honourable rank, the robe called togas praetexta, the curule chair, and the right of having images, which were set up in their halls and carried in pomp at their funerals; all of which were privileges that were annexed to the great offices of state.

The first curule dignity held at Rome was the edilship, and the age for entering into that office was 37. In two years it was succeeded by the praetorship, and after the like interval, by the office of consul. The manner in which the office of edile was sustained, and particularly in the exhibition of games, very much contributed either to gain or alienate the attachment of the people with respect to the other dignities. The expense attending the games and fests was, in some cases, enormous. Cicero was moderate, as he informs us in his Offices, 1. 2. apud oper. tom. 3. p. 553. Ed. Olivet. But the expenses of others in that department of their office which respected the games were so exorbitant, as to give Livy reason for observing, that the revenues of the most opulent princes would hardly suffice to support them. Of this fact we have a memorable example in the edilship of M. Scaurus, in the 69th year of Rome. So that Play, (L. 36. c. 15.) from the almost incredible profusion, which this edile bestowed upon the theatre which he erected, took occasion to exclaim, that the edilship of Scaurus finally ruined, and subverted the manners of the public.

Augustus transferred the care of the public fests and sports to the praetors, and would not allow them to be exhibited at their own charge, but obliged the people to contribute a part, and paid the rest out of the public treasury.

To each of these four first ediles Cæsar created a new kind, called ediles cereales, as being deputed chiefly to take care of the corn, which was called donum Cerevis; the corn being a great part of the dress and subsistence of the Romans. These ediles cereales were also taken out of the order of patricians. In the municipal cities there were ediles, with the same authority as at Rome.

We also read of an edilis alimentarius, expressed in abbreviation by Edil. alim. whose business seems to have been to provide diet for those who were maintained at the public charge, though others assign him a different office.

In ancient inscriptions we also meet with ediles of the camp, ediles castrorum.

Adilis, in Entomology, a species of the Cerambyx with a smooth glossy thorax, marked with white yellow spots, and orange yellow antennae. It is found in the trunks of trees in Europe, and is also called Capricornus Rugiceps.

Adilitium edicum, among the Romans, was the kind of place where the edil, in order to give a remedy, was given a buyer, in case a vicious, or unprofitable, or slave, was sold him. It was called adilitium, because the preventing frauds in sales and contracts belonged especially to the curule ediles.

Aditus, in Antiquity, the keeper of a sacred mansion, who had the care of the offerings and ornaments of the deity to whom it was peculiarly devoted.

The word is compounded of aditus, and tuor, I defend, q. d. a tuendis aditus; originally it was written aditium. The aditus is the same as that which Scævola calls hierophylos, the Latins sometimes naming it aditus, and the Greeks ναός, answering to the fexon among us.

The aditus, among the Romans, were officers of distinction, being the depositaries not only of the treasure, but of the public acts, or records. The aditus had their several cells, near the temple, the custody of which was committed to them. Struvi. Ant. Rom.

The female adities had a female officer of the same kind, under the denomination aditina.

Aditus, Martin, in Biography, born at Amsterdam, was first physician to Frederic II. king of Denmark. Adrien Jonghe, dedicated his treatise "De Coma" to him, published at Eâle in 1558, whence it appears that he was then in high repute.

Eōdia, the fame as Pudenda.

Ædon, in Ancient Geography, an island of Marmara, on the borders of Egypt.

Æodon, in Ornithology, a species of Muscicapa.

Ædui, in Ancient History, a denomination given to the most ancient and powerful people of Gaul, who were situated between the rivers Seine, Loire and Saone, within the 46th and 47th degree of latitude; and who were the only allies Caesar had at the time of his invading Gaul.

Their country was fruitful, and furnished abundance of corn. Their principal city was Bibrae or Augustodunum, now Autun. The form of their government was aristeocratic; and they chose their chief magistrate annually.
This government only halted till the establishment of the Romans in Gaul. The Adii then occupied the countries comprehended in the dioceses of Autun, Chalon, Macon, and part of that of Dijon. Their allies and their subjects comprehended the rest of La Bourgogne, La Bresse, Le Lyonnais, Le Beaujolais, Le Forez, Le Bouronnais, and Le Nivernais.

AEUSII, allies of the Romans, bordering upon Celtic Gaul.

AEG, in Ancient Geography, a river of Phocis:—a town of Alvonia:—in island between Tenedos and Chios:—and a promontory of Alia Minor in Alvola.

AEADES, AEAGATES, or AEAGUS. Infusa, three islands lying north of Cape Lilybæum, or on the west side of Sicily opposite to the main land between Marsella and Trapani; viz. Phorbutania, or Bucina, as Pliny calls it, Eufja or Caparria, and Hiera, called also Maritima. The first is now called Lavanzo, the second Favignana, which is very fruitful, and the third Marzanta. In these islands the Romans under the Confid L. Calatus obtained a signal victory over the Carthaginians, which terminated the first Punic war.

AEGAE, or AEGEAN, is derived, as some have supposed, from the genitive Aegon of Aeg, a goat. See AEGEA. But several ingenious moderns, and particularly the Abbé Ber- gier and M. Gobelin, tracing the origin of the name to its primitive roots aeg, aeg, have found that these words, in the Pelasgic and Celtic languages, denote waters or maritime countries; and they have concluded, that the appellation Aega is derived from the vicinity of the places to which it is applied to waters, or from their being better adapted to maritime commerce than other places. Accordingly they add, that Neptune was particularly honoured in the Aegaean cities.

AEGE was a city of Cilicia on a promontory in the gulf of Issus, having Issus to the north-east, and Mallos to the north-west;—it was also a town of Macedonia, called AEGEA and EDessa:—a town of the Thracian Chersonesus, probably AEGOS Polanos:—a town in the Myrrhaia, a country of Aolis, south of Cuma and east of Phocaea, on the border of the gulf, which town, as Tacitus informs us, was overwhelmed by an earthquake:—a town of Lydia:—another of Locra:—another of Aetolia:—another of the island of Cos, where they had a temple of Neptune:—and another of Achaia, on the gulf of Corinth, at the mouth of the river Crathis, (see Homer I. ii. viii. v. 208.) In AEGE of Cilicia there were medals of gold, bronze, and silver. The symbol was half a horse;—and rich imperial medals were struck here in honour of several of the Roman emperors. In AEGE of Macedonia, the medals were silver, gold, and bronze; and the common type was a goat. In AEGE of Aolis, which was governed by pretors, there were struck Greek imperial medals in honour of some of the Roman emperors.

AEGEUS, the name of a river, mentioned by Suidas, in the island of Coreia. Stephanus Byzantius, and Eufatius speak of a canton in Phocis, under the name of Campus Aegaeus, (πεδίον αειγαεων) taken from a river Aegaeus which runs there.

AEAGROPILA or AEAGROPILUS, in Natural History, and in Veterinary Medicine, is a ball generated in the flomachs of some animals. There are two species of intelligent collections that have this appellation, but which are entirely dissimilar. The one is composed of hair, and is very usually found in the flomach of the rupicapra, or chamois goat. The other species is truly a calculous concretion, which is found more frequently in the intestines of different animals, particularly of horses. It is this kind that is sometimes called bezoar Germanicum, or the German bezoar. The word is Greek, from αυξησις, the rupicapra or rock goat; and παιζειν, a ball. See Balls, and Hair-Balls.

AEAGROPILA, in Botany, a species of Conifera, with very rumose filaments closely united from the centre, and constituting a globe.

AEAGRGUS, in Zoology. See Goat and Ibis.

AEAGUS, or AEGEA, now Phocaea, was an ancient capital of Macedonia, the residence of Caranus, the first king of Macedon, and the burial-place of the kings of his line to the time of Alexander the Great. It derived its appellation, as it is pretended, from the following circumstance. Caranus, who was by birth an Argive, leaving his native country at the head of a considerable body of Greeks, was under- mined where they should settle. But upon consulting the oracle, he was instructed to establisth his empire according to the direction of the goats. Ignorant of its meaning, he pursued his course to the country, afterwards called Macedon, and approached Edessa the capital of the small kingdom Amathia, governed by king Midas. The sky was overcast, and a storm succeeded; upon which Caranus observed a herd of goats running for shelter into the city. This circumstance reminded him of the response of the oracle; and, commanding his men to follow him, he entered the city by surprie, and thus poifoned himself of it and of the whole kingdom. In gratitude to his conductors he changed the name of the place into Aega, and called his people Aegaeans or Aegacists; and introduced a goat into his standard in commemoration of the event. In the book of Daniel, the he-goat is the symbol of Macedonia. Pliny, li. iv. c. 10. tom. i. p. 200. Ed. Hard. Medici's Works, B. iii. Comment. Apoc. p. 473.

AEGEAN Sea, a name given by the ancients to that portion of the Mediterranean, which extends from the promontory of Sunium and the island of Crete, as far as the Hellespont. It is now the Archipelago, separating Europe from Asia, washing on one side Greece and Macedon, and on the other Caria, Ionia and Phrygia. The origin of the appellation Aegaean has been variously assigned. Felus has recorded three etymologies; one that is derived from the numerous islands that are scattered over this sea, and which appear at a distance like a herd of goats; another, because the queen of the Amazons perished in it; and a third, because Aegus the father of Theseus threw himself headlong into it. Volusius, however, and many other learned persons, are not satisfied with either of these etymologies; but conceive it to be derived from αυξησις Doriz̆us flactus; and that the waves are denominated αυξη̄ς, i.e. goats, on account of the leaping motion of these animals. See Aega.

The navigation of this sea, which abounds with islands to the number of 55, from Tenedos to Crete, according to the enumeration of ancient geographers, and which are comprehended under the two general denominations of Cyclades and Sporades, is both difficult and dangerous; whence proceeds the proverb, he fails on the Aegean sea, or Αυξη̄ς πλησιος; applied to a person who engages in a hazardous undertaking. The Aegean sea is usually divided into seven parts, viz. 1. The sea of Crete, between that island
island and the Peloponnesus. 2. The Myrton sea, before Peloponnesus and Attica. 3. The sea of Greece, along the coast of Greece. 4. The sea of Macedonia, on the coasts of that kingdom and of Thrace. 5. The Aegean sea, properly so called, between Euboea and Lemnos. 6. The Icarian sea, towards the island of Icarus. 7. The Carpathian sea and that of Rhodes, lying between this island and that of Crete. The principal rivers running into this sea are the Alfeon, Eriden, Axios, Strymon and Nestus. The Aegean sea was particularly favourable to commerce by means of the spacious bays that were formed by it on the Asiatic coast, of which the most remarkable were the Strymonic, Sintitic, Toronac and Thermian.

ÆGIS or ÆGIS, a tribe of Attica, so called from Ægis the son of Pandion, contained 16 boroughs or towns.

ÆGELETHRON, in Botany, a name used by some authors for the common marcescens, or English mercury, an eatable wild herb.

ÆGELE, in Ancient Geography, a people of Media in Asia, supposed by some to be the same with the Æghi mentioned by Herodotus.

ÆGELICA, a town of Macedonia, which, as Livy informs us, was surprized by Attalus.

ÆGEON, in Entomology, a species of Scarabeus, of a red colour, with the horn of the thorax short and incurvated and bearded beneath; and that of the head recurved and fusilulate. It is found in South America and India.

ÆGEONIS Promontorium, a promontory of the Euxine Sea, at the mouth of the river Rhynchos, or on the confines of Mytilus and Bithynia.

ÆGERI, or ÆGER, in Geography, a community of Switzerland, which forms with the town of Zug, and the community of Menfingen and Dar, the sovereignty of the canton of Zug. It is divided into two parishes; the higher Ægeri, where the council of the community is held, and lower Ægeri or Wilegeri near the lake Ægeri, which is a league in length and very deep, and abounds with fish. The river Lorez runs into it.

ÆGERIA, in Entomology, a species of Papilio, with dentated brown wings, spotted with yellow, and with an ocellus on both sides of the anterior wings, and four ocelli on the upper side of the posterior wings, and four points under them. It is found on the grapes in Europe.

ÆGESTA, a town of Sicily, called also Segesta. It is now Barbara.

ÆGETA, Aceta, or Egeta, a town of Upper Mafa on the Danube, probably the Egeta of Pтолемей, is placed by M. d'Anville near Trajan's Bridge, south-west of Zermes.

ÆGEUS, in Fabulous History, was king of Athens, and father of Theseus. Minos king of Crete, having subdued the Athenians, in a war occasioned by their murder of his son, inflicted upon them this penalty; that they should annually send into Crete seven of the noblest of the Athenian youths to be devoured by the Minotaur. After three years Theseus was sent; the young prince killed the Minotaur; but having forgotten to change the black tail into white upon his return, according to the instructions given him by his father, Ægeus conceiving him to be dead, cast himself headlong into the sea, which, from this circumstance, fays the fable, obtained the name of the Ægean sea. The Athenians decreed divine honours to Ægeus, and sacrificed to him as a marine deity, the adopt deon of Neptune.

ÆGICACUS, or ÆGIOCHUS, in Mythology, a name given to Jupiter, on account of the goat Amalthaea, by which he was suckled.
arrow, he would not suffer the wound to be dressed, that he might exercise his fortitude in bearing pain.

AEGIDUS de COLUMNa, a Roman monk of the Augustinian order, was preceptor to the sons of Philip III. of France, and taught philosophy and theology in the university of Paris with so much reputation, that he was honoured with the appellation of "The most profound Doctor." After being advanced to the rich bishopric of Berri, he died in 1316; leaving behind him on his monument the character of "Lux in lucem reducens dubia;" i.e. the luminary that brought dark things to light; a character which his writings, on account of their profound and unfathomable obscurity, do not justify. Brucker's Hist. Philol. en Enkeld, vol. ii. p. 379. His "Lucubrations on the Sentences of Lombard," were printed at Bafi, in 1623. His work "On original Sin," in 4to. at Oxford, in 1479; and his "Questiones Metaphysicae et Quodlibeticae," at Venice in 1501.

AEGIDIUS Carboneus, or Gilles de Corell, canon of Paris, was physician to Philip Augustus, king of France, and lived about the end of the twelfth century; "ex Salernitana Schola, Haller says, Medicus et Poeta." He wrote a treatise, "On Compound Medicines," in Latin verse, which has not been printed; also "Liber unus de Urinarum judiciae, et de Pulibus liber unus, Venetiis impress. 1494, cum Expeditione et Commento M. Gentilis de Fulgingo," reprinted at Lyons 1509, and at Bafi 1579.

AEGILA, in Ancient Geography, a borough of Laconia, in the Peloponnesus. Paulusimus (p. 320) informs us, that it had a temple of Ceres, in which Areitomenes, a general of the Messenians, surplified an assembly of women, who were celebrating a feast in it; and that the women not only defended themselves, but repulsed him, without any arms besides the knives which they used for their sacrifices; and that he escaped merely by favour of Archidama, a Messenian female, whose affection he had engaged.

AEGILA. See AEGYLA.

AEGILA, one of the boroughs of the tribe of Antiochides in Attic.

AEGLION, an island, called also Caparia, now Carigotto.

AEGILIPSA, a place of Greece in the vicinity of Ithaca, restored near Crocia of Epirus. Homer's II. ii. v. 633. AEGILPS. See IGILPS.

AEGILPS, formed of any w. goat's face, on account of its roughness, wild Jnychus, in Botany, a genus of the monoeic order, and polygynia clados, and of the natural order of gramin or graffes; the characters are, that the hermaphrodite calyx is a large bivalvular glume, subtaining three flowers, and that the valves are ovate, truncate, streaked with various awns; the corolla is a bivalvular glume, the outer valve ovate, terminated by a double or triple awn, the inner lanceolate, ovate, awnless, with the edge bent in longitudinally; the calyx two-leaved, with ovate, flat, transparent, very small leaflets; the flamina have three capillary filaments, with oblong anthers; the pistillum is a turbinate germen, the styles are two and reflex, with hairy stigmas; no pericarpium; and the seeds are oblong, convex on one side, grooved on the other, with the inner valve of the corolla adhering to it, and not opening. There are four species: viz. ovata, caudata, truncata, and squarrosa; to which Gmelin adds the aromatica and fuscata; and he ranks this genus under the triandria digynia clados and order. The fruit of these grasses is wild in the southern countries of Europe, and was cultivated in 1683, by Mr. James Sutherland; the second was found by M. Tournefort in Crete; the third grows about Montpelier, Marvilles, Nice, and Smyrna, and was introduced in 1776 by M. Thouin; and the fourth was found by Tournefort in the Levant, and by Cavanilles in Spain. They all seem to be annual.—Martyn's Miller's Dict.

AEGLOPS is also a name given to the holm-oak, a species of the QUERCUS; to the wild oak, a species of the AVENA; to a species of the ANDROPONION, and to a species of the BROMUS. Aeglops incurvata is a species of the rutbella.

AEGLOPS, or AEGYLOPS, in Surgery, an Abscess seated near the inner angle of the eye, which is so called from its giving a calling of that organ resembling a goat’s eye, (from αἰγόν, a goat, and ὀψ eye.) It has been noticed by Virgil, "Tranversa tuentibus Hircis." The finouity, which we now indifferently call fistula lachrymalis, in its incipient state, was named Archilops by some of the ancients; but, in its stage of suppuration, it was termed aeglops. For the description and treatment of this disorder, see Fistula Echrymalis.

AEGIMURUS, in Ancient Geography, a small island in the Gulph of Carthage, about thirty miles from that capital. Phyn, (H. N. tom. i. 251.) informs us, that there were two rocks near this island, called the are eginuri, or egimuri, which, according to Servius, were the remains of an island, some ages before his time, absorbed by the sea. This author likewise informs us, that they were called are, because on them the Romans and Carthaginians concluded a treaty, and made them the limits of their respective dominions. Virgil refers to these in his Aeneid. l. i. v. 113.

"Saxa vacant Itali, medieeque flucibus arm." The modern Zouawmaore, or the Zimbra of our sea-charts, lying betwixt Cape Zibec and Cape Bon or Ras-addar, is the Aegimurus of the ancient. The gulph in which this island lies, is remarkable for its great depth as well as breadth, and on this account was justly named by Virgil, Aeneid, i. i. v. 163. See above, a long reef. Shaw's Trav. p. 76. 4to.

AEGINA, an island in the Saronic gulph, or bay of Engina. It was more anciently known by the names of Oenone or Oenopia, (Plin. tom. i. 209.) and Myrmidonia, from its inhabitants the Myrmidons, so famous among the poets. It was called Aegina by Aeacus, who reigned in this island, from the name of his mother, the daughter of Aeglops, king of Eocotia, who was debauched by Jupiter, as fabulous history reports, in the similitude of a lambent flame, was removed from Epidaurus to this defart island, It is now called Aegina, and is one of the islands of the Archipelago. It lies between the territory of Athens, and that of Epidaurus, eighteen miles distant from the coast of Athens, and fourteen from Peloponnesus. It is about twenty-six miles in circuit, and had anciently a city of its own name, which being destroyed by an earthquake, the inhabitants were exempted by Titberries, for the space of three years, from paying any kind of tribute. Paulusimus (in Corinth. c. 12.) speaks of two magnificent temples in this island, the one consecrated to Venus, the other to Jupiter. The latter was built upon the summit of a mountain called Panellenides by Aeacus, in order to propitiate Jupiter in a time of drought; who was supplicated under this epithet, and granted to his votaries rain. The temple was of the Doric order, and had six columns in front, and chains a very remote antiquity: its remains, in a very ruined state; indicate its original magnificence. The soil of this island was at first very fliny and barren; but being cultivated by the inhabitants, it became very fruitful; and hence, says Strabo, (tom. i. p. 576.) the inhabitants were called Myrmidons,
Myrmidons, i.e. *commets*, from their industry. This island was first peopled by the Epidaureans, who were originally Dorian, and afterwards by colonies from Crete and Argos. These were, in process of time, driven out by the Athenians, and the Athenians by the Laconians, who restored the island to the ancient proprietors. The *Ægipians* applied themselves, in a very early period, to trade and navigation, and sent colonies into the neighbouring islands of Imbros and Crete, in the latter of which (fays Strabo) they built and peopled the city of Cydon. The first money, according to the same writer, was coined in *Ægina* by one Phidias. Pliny (tom. ii. p. 640.) comments on the brass of this island, and affirms that the famous statue of this metal, representing an ox, which floated in the forum boarium at Rome, was carried from hence to adorn that capital. The *Ægipians* were originally governed by kings; but afterwards introduced the republican system, which became so powerful as to vie even with Athens. Æneas, from whom sprung the Ædichus, who reigned in different countries with reputation and power, was the second king of this island; and, according to Macrobius (*Adv. verius Gentes*, i. vi. p. 131.), he lived about two generations before the Trojan war, and was the first who built a temple in Greece. Upon the dissolution of this monarchy, the *Ægipians* became subject to the Epidaureans; but applying themselves to navigation, they became powerful by sea, and revolted from their masters, ravaged their territory, and carried away the two famous statues of Damas and Auckenas. This occasioned an irreconcilable enmity between the *Ægipians*, and Athenians. This island was at last reduced by the Athenians, and continued subject to them, till, at the end of the Macedonian war, it was declared free by the Romans; but in the reign of Vespasian it underwent the same fate as the other states of Greece. In the year 1536 it was subdued by the Turks, after an obstinate resistance: the capital was plundered and burnt; and after a great slaughter of the inhabitants, the rest were carried away into slavery. The population of this, as well as of other little states, in the times of their splendour, was immense. *Ægina* had once 420,000 slaves, the proportion of whom to freemen was, in ancient republics, according to the monopoly of wealth. In Greece it is supposed to have been about twenty to one. The most remarkable circumstance related by modern travellers concerning this island is, that it swarms with partridges, and that for preventing their increase the people go out every year to break their eggs: fearing, left, by decreasing their corn, these birds should produce a famine. They have no hares, foxes, or wolves in this island. In summer the rivers are dry. The waiwode or governor farms the revenue of the Grand Seignor for twelve purves, or 6000 piastras. About half this sum is repaid annually by the carach-money, or poll-tax.

The town of *Ægin*, so called by corruption from *Ægina*, is said to consist of about 800 troops, and has a cattle, and near it may be seen the remains of a magnificent structure, which was probably one of the celebrated temples which formerly graced this island.

Imperial Greek medals were struck in this island, in honour of Elagabalus and Phaetilla.

*ÆGINETUS*, Paulus, in *Biography*, a celebrated surgeon of the island of *Ægina*, from which he derived his name. He is placed by Le Clerc in the fourth century, but by Abulpharagius in the seventh. He was eminently skilled in surgery, and his works are frequently cited by Fabricius ab Aquapendente, and indeed form the basis of this author's valuable treatise. He is the first author that takes notice of the cathartic quality of rhubarb. He begins his book with the description of women's disaffairs, and he is said to be the first person among the ancients that defers the application of a man-midwife. His works are Libri viii. de Re Medic, et sunt opera omnia Graecae, Venetiis 1528, fol.—Idem ex interpret. & eum Ann. I. Guinerti Aeneidae Venet. 1542, 8vo.—Id. eum Ann. J. Cae. Goupylii ex ed. cum Schol. J. Bap. Camoti Venet. 1553, 8vo.

*ÆGINETUS*, in *Ancient Geography*, a small town of Paphlagonia, and also a small river of the same province in Asia Minor.

*ÆGINETIA*, in *Botany*, a species of *Orobanchus*, with a single-flowered stalk, and a tuberculous flower.

*ÆGINHARD*, in *Biography*, a native of Germany, who was educated by the munificence of Châlemagne, and who afterwards became his secretary, and as some suppose his son-in-law, by marrying his daughter Ínma; but it has been lately proved that he was not the daughter of Châlemagne. He is said to have been carried through the snow on the shoulders of the affectionate Ínma, that his footsteps might not be traced from her apartments by the emperor her father. This story was copied by Adelphon from an old German Chronicle, and admirably embellished by this elegant writer in the third volume of the Spectator. Æginhard, after the death of his wife, which he deplores in a letter still extant, is supposed to have passed the remainder of his days in religious retirement, and to have died soon after the year 840. His life of Châlemagne, his Annals from 741 to 889, and his letters, are inserted in the second volume of Duchesne's Scriptores Francororum. An improved edition, with the Annotations of Hermann Schminke, was printed in 1711.

*ÆGINIUM*, in *Ancient Geography*, a town of Greece, in Thebaly, on the frontiers of the Tymphanian mountains near the source of the Ion, which here forms a small lake, and south-west of Azoros.

*ÆGIOCHUS*, a small place in the island of Crete, where Jupiter was nourished by a goat, according to Diodorus. See *ÆGIOCLUS*.

*ÆGIPA*, a town of *Ethiopia*, near the Nile.

*ÆGIPAN*, in *Antiquity*, a denomination given to Pan, and the Panes.

The ancients also give the name *Ægipans* to a sort of monsters mentioned by Pliny, Sulpicius, and Pompon. Salaminus, in his notes on Sulpicius, takes *Ægipan* to have signified the same, in Lybia, with *Scythus* among the Romans.

Vollini rejects the opinion, and shews that the *Ægipans* had not faces like men, as the *Sylvans* had; but like goats. In effect, the whole upper part of the body resembled that animal; and as to the lower, they painted it with a fish's tail. The monster represented on some medals of Augustus by antiquaries, called *Capricornus*, appears to be the true *Ægipan*.

The word is derived from *Æ*, a goat; Pan being represented with the horns, feet, and legs of that animal.

*ÆGIPHILA*, formed from *Æ* and *phil*, Goat's friend, a genus of the *tetrandria monogyna* class and order, and the natural order of *Philies*; the characters are, that the calyx is one-leaved, bell-shaped, four-toothed, loose, very short, permanent perianthium; that the corolla is one-petalled, salver-shaped, with a cylindric tube, narrower and longer than the calyx, border quadrifid, flat, equal, and clefts oblong;
the lamina are capillary filaments inflected into the mouth of the tube, erect, and anthers roundish; the pistillum is a roundish superior germ, style capillary deeply bident, and stigma simple: the pericarpium is a roundish two-celled berry, surrounded with the permanent calyx; and the seed is either in pairs or solitary. There are four species, viz. martiniensis, elata or the knoxia of Brown, faticula, and trifida, to which are added in the last edition of Linnaeus's Sytema, the willofoa, arboreferns and levis. The first is a shrub about six feet high with white flowers, which appear in November, a native of Martinico, and was introduced in 1758, by Mr. Francis Maffon. La Marek thinks this species ought to be classed with the Verbena. The other species are natives of Jamaica.

ÆGIUS, a river of Afa, which discharges itself into the Euxine, above Diocoriana.

ÆGIPATUM, in Ancient Geography, a mountain of Greece, mentioned by Æschylus in his Agamemnon, and supposed to be in the vicinity of Corinth.

ÆGIRA, a town of Achaia, supposed to be founded by Ægrus, the sixth king of Sicily, and situate, according to Polybius (i. iv. c. 57. p. 322. D. Ed. Caalab.) in that part of Peloponnesus that is washed by the Corinthian bay, between Ægim and Sicily, opposite to Parnassus, and at the distance of seven stadia from the sea. It was covered with steep and almost inaccessible hills; and adorned with several temples, one of which was appropriate to Venus Celestis, into which no men were allowed to enter, and also with several pictures and statues. Paunulianus (p. 593) speaks of one of these pictures, which exhibited an aged man, who had received a mortal wound, and who was placed between three brothers and three sisters. The expression of concern and grief was so lively, that the picture was denominated nobi magna. It is now a small village called Xylagasso or Hyloagasso.

Ægrus was also one of the names of the ancients gave to the island of Lesbos.

ÆGIRCUS, Cers, a river of Gaul, which rose in the Pyrenees, passed to Auleia or Auch, and discharged itself into the Garray.

ÆGIRUM, or Ægrus, a town of the isle of Lesbos, on the east side between Methymna and Methymna.

ÆGRIRA, a town of Æolis; and also of Megas. 

ÆGIS, in the Ancient Mythology, a name given to the shield or buckler of Jupiter and Pallas.

The goat Amalthea, which had buckled Jove, being dead, that god is said to have covered his buckler with the skin thereof; whence the appellation ægis, from ægis, ægias, Ægion.

Jupiter afterwards restoring the beast to life again, covered it with a new skin, and placed it among the stars. As to his buckler, he made a present of it to Minerva; whence that goddes's buckler is also called ægis.

Minerva, having killed the Gorgon Medusa, nailed her head in the middle of the ægis, which henceforward had the faculty of converting into stone all those who looked thereon; as Medusa herself had done during her life.

Others take the ægis, not to have been a buckler, but a cuirass, or breast-plate; and it is certain the ægis of Pallas, described by Virgil, Æn. lib. viii. ver. 435. mult have been a cuirass; since that poet says expressly, that Medusa herself had done during her life.

But the ægis of Jupiter, mentioned a little higher, ver. 354, seems to have been a buckler: the words agreeing very well to a buckler; but not at all to a cuirass, or breast-plate.

Servius makes the same distinction on the two passages of Virgil; for on ver. 354, he takes the ægis for the buckler of Jupiter, made, as above-mentioned, of the skin of the goat Amalthea; and on ver. 435, he describes the ægis, as the armour which covers the buckler; and which, in speaking of men, is called cuirass; and ægis, in speaking of the gods. Many authors have overlooked these distinctions for want of going to the sources.

ÆGISSUS, or ÆGYPTUS, in Ancient Geography. See ÆGYPTUS.

ÆGISTAE, a town of Italy in Brutium, east of Caesarina, called by Pliny Apyeulum.

ÆGISTHE, a town which Ptolemy places in Arabia Felix; long. 33° 30' lat. 11° 45'.

ÆGISTHUS, in Entomology, a species of Papilio, with brown wings, spotted with a light green, found in India, and resembling the species called Agamemnon.

ÆGISITHUS, in Ancient History, the son of Thyestes by his daughter Pelopia, who, in order to conceal the incest, exposed the child in the woods; where he was found by a shepherd and nursed with goat's milk, from which circumstance he derived his name. In mature life he killed his uncle Atreus, and kept Clytemnestra, the wife of Agamemnon during the absence of her husband at the siege of Troy, and at his return murdered him; but was at last himself slain by Orestes in revenge of his father's death. Ovid's Ep. viii. 53.

ÆGITHALLUS, in Ancient Geography, a promontory and citadel of Sicily, between Drepanum and the Emporium. Ægitannum; afterwards called Acellus, corruptly written Ægitarhon in Ptolemy, situate near mount Eryx, and now called Capo di Santo Teodoro.

ÆGITH, a town of Ætolia in Greece.

ÆGITNA, a town of Gaul, belonging, according to Polybius (p. 962) to the Oxobii. The Romans besieged and took the town, and made slaves of the inhabitants; and on this account Q. Opimius the consul obtained a triumph, A. U. C. 599.

ÆGIUM, a considerable town of Achaia Propria, 40 stadia from the place where Helice stood, and famous for the council of the Acharians, who assembled there, either on account of the dignity of the place or the convenience of its situation, as we learn from Paunulianus (l. 7. c. 24. p. 584. Ed. Kuhnii.) and from Livy (l. 38. c. 32. t. 5. p. 216. Ed. Drakenb.) It was also famous for the worship of the conventional Jupiter, (Σιμόφων Λως), of the Panachzan Ceres, of Ægelclus, Lucina, Juno, and other deities. In this place there was a kind of chapel, in which were preserved the statues of Hercules, Jupiter and Minerva, called the Argian gods. Venus had also a temple in Ægium near the sea, and in it was a statue of Jupiter Homaygus. The territory of Ægium was watered by two rivers, viz. Phœnix and Meganites. The epitaph derived from it is Ægeianus. There is a coin, says Cellarius (t. 1. p. 757) in the cabinet of the king of Prussia, with the inscription, ΑΣΩ, and the figure of a tortoise, which is the symbol of Peloponnesus, and ascertains the place where it was struck. Greek imperial medals were struck in this city in honour of Pautilla, Commodus and Elagabalus.

ÆGLE, in Entomology, a species of Pappio, with black wings; the anterior and the disk of the posterior marked with greenish spots; found in India.

ÆGLE, in Mythology, the mother of the Graces; also, one of them: and according to Virgil (Eclog. vi. 21.) the most beautiful of the Najades.
ÆGON, in Mytology, a name given by authors to the Haddock.

ÆGLEFINUS, in Ichthyology, a genus given by authors to the Allosa.

ÆGLETE, in Ancient Geography, a place in the Isle of Anapha, where Apollo obtained the surname of Æglete.

ÆGLESTAWICK, in Geography, a good harbour, half a mile from Sundertide, a town of Sundertorn in Sweden. E. long. 15° 40'. N. lat. 59° 20'.

ÆGLEUS, in Botany, a term derived by the Greek ancients, and used by Galen in distinguishing the white chamaeleon thistle, which was an excellent medicinal plant, from the echinurus, euphorbe, which was what we call the black chamaeleon thistle, and esteemed poisonous.

ÆGEBOLIUM, in Antiquity, the surname of a goat offered to Cybele. This was an expiatory sacrifice, which nearly resembled the tamarbolium and criabolium, and seems to have been sometimes joined with them.

ÆGEBOLUS, a surname given to Bacchus, because instead of a young man who was sacrificed to him, he contented himself with a goat.

ÆGECOPHALUS, in Ornithology, the name by which authors call the bird, known in England by the name of the Godwit, or in some places the yarwhelp or yarwhip.

ÆGECERAS, in Botany, a name given to Ficus, on account of its corniculated fruit; the word signifying goat's horn.

ÆGECERATOS. See Hugonia.

ÆGECEROS, formed of αί, goat, and ζέρω, to make, in Astronomy, a name given to the constellation Capricorn. Thus, Lucan, 1. 9, v. 537, and I. 10, v. 213.

"Varii mutator circulus anniÆgoceron canumque teneet."

Pan, dignified by the poets and elevated to the stars, transformed himself into a goat, and was called Ægoceros.

ÆGEOLETHRON, in Botany, a plant described by Pliny, which appears to be the same with that Tournefort describes under the name of chamaerocendros pontica maxima metapli folio, flore luteo. The ancients attribute dangerous qualities to it.

ÆGOMANTIA, in Antiquity, a species of divination performed by means of a goat.

ÆGON, in Entomology, a species of Papilio, with brown wings and spotted yellow face; found in Jamaica.

Ægon is also a name given by some writers to the Argus.

ÆGENES, in Ancient Geography, a people of Gaul, transported according to Polybius (p. 105) into that part of Italy called Cispadana, and placed between the Senones and Boii.

ÆGONICHUS, in Botany, a name mentioned by Pliny, as a synonym of the lithophorium or gromwell, and formed of αίγον oxē; the claw, or hoof of a goat. The ancients also called it exomphalos; and by these terms expressed its being like the exterior part of the human nails on the fingers, and deduced the resemblance from the hardness and sharp nature of the nails.

ÆGON, in Mythology, a surname of Juno, because goats were sacrificed to her.

ÆGOPHAGA, in Mythology, a surname of Juno, because goats were sacrificed to her.

ÆGONICHIUS, in Botany, a name mentioned by Pliny, as a synonym of the lithophorium or gromwell, and formed of αίγον oxē; the claw, or hoof of a goat. The ancients also called it exomphalos; and by these terms expressed its being like the exterior part of the human nails on the fingers, and deduced the resemblance from the hardness and sharp nature of the nails.

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ger of their situation, and offered to attack the enemy by land and force them to battle; but jealousy prevented their profiting by his advice, and he therefore withdrew. On the 5th day the Athenians offered battle; but Lycurgus chose rather to submit to renewed insults than to hazard the event of a battle, before he had completed his previous arrangements. At length, however, the admiral's galley gave the signal by the sound of trumpets, and the whole fleet advanced in good order. The land army also hastened to the top of the promontory to observe the contest. The fleet that separates the two continents in this place is about 15 stadia, 187-5 paces, or 4 of a league in breadth, and this space was presently cleared by the activity and diligence of the rowers. Conon, the Athenian general, perceiving from the shore the order and progress of the Lacedaemonian fleet, was alarmed, and gave immediate orders for the troops to embark. But for want of vigilance and due discipline on the part of the generals, the troops were dispersed, and were indulging themselves in a variety of ways, under an apprehension of perfect security. Upon the first onset of the enemy, Conon perceived that all was lost, and disengaging himself with nine galleys, of which number was the sacred ship called the Paralid, fled to Cyprus, where he took refuge with Evagoras. The rest of the fleet and army was either captured or destroyed. Lycurgus, after having plundered the camp, and killed the enemy's galleys to the sterns of his own, returned to Lambsacus, amidst the sound of flutes and songs of triumph. It was his glory to have achieved one of the greatest military exploits recorded in history, with but little or no loss, and to have terminated a war in the space of an hour, which had lasted 27 years, and which perhaps, without him, had been of much longer continuance. The Athenians, some time before this event, had at the instigation of Philocles, one of their generals, passed a decree for cutting off the thumb of the right hand of all the prisoners of war, that, being unable to handle the pike, they might be only fit to serve at the oar. On this occasion Lycurgus asked Philocles what punishment he thought such a decree merited, and wished him to pass sentence upon himself. Philocles, not withstanding his danger, haughtily and magnanimously replied: "Accuse not people of crimes who have no judges; but as you are victor, use your right, and do by us as we have done by you if we had conquered." Having said this, he instantly prepared for execution, without betraying the least timidity. All the other prisoners, in number about 3000, were put to the sword, except Adamantus, who had opposed the above-mentioned decree. After this expedition all the Athenians were ordered, on pain of death, to repair to Athens, which was soon besieged, and which capitulated and surrendered. A. M. 3520. Ant. I. C. 404. Diod. Sic. xiii. c. 105. 157. tom. i. p. 627. 630. Ed. Welsch. Plut. in Aesch. oper. tom. i. p. 212, in Lyfand, p. 438. Ed. Xyland. Rollin's Ant. Hist. vol. iii. p. 284, 288, 870.

ÆGOSTENA, or Ænesthena, a town of Greece, north-west of Megara, near the sea of Alcione: celebrated for a temple of Melampus, son of Amythcon, to whom they offered annual sacrifices.

ÆGOSTHENIA, a town of Greece in the Locris.

ÆGUA, a town of Bética in Spain.

ÆGUSA, or Æthusa, a small island on the coast of Africa Propria, mentioned by Pliny and Ptolemy, being one of the cluster called Ægades.

ÆGYLA, Ægilia, or Ægiliala, one of the Greek islands mentioned by Stephanus, (De Urb. p. 35) situated between Crete and Peloponnæus: the name with that mentioned by Pliny (H. N. t. i. p. 209), 15 miles from Cythera.

ÆGYPSUS or Æcissus, a town of Mocia near the river Ilissus. M. d'Anville refers it to the vicinity of the place on the Danube, where Darius Hyphasis constructed a bridge, when he was engaged in war with the Scythians. Ovid. Epist. ex. Pont. l. i. ep. 8. tom. iii. p. 732. Ed. Burm.

ÆGYPT. See Egypt.

ÆGYPTICA, in Botany, signifies the Papyrus.

ÆGYPTIACUM, in Pharmacy, a name given to divers unguents of the detergent, or corrosive kind.

We meet with a black, a red, a white, a simple, a compound, and a magistral Ægyptiacum.

The simple Ægyptiacum, which is that usually found in our shops, is a composition of verdigris, vinegar, and honey, boiled to a confection: the prescription is Mefius. It is usually suppos'd to take its name from its daily colour, wherein it resembles that of the natives of Ægypt. It is improperly called an unguent; as there is no oil, or rather fat, in it. Some chafe to call it Mel Ægyptiacum, and Oxy-mel Ægyptinis. It is chiefly used in eating off rotten flesh, and cleansing foul ulcers; particularly venereal ones in the throat, &c. It also destroys those cancerous erosions apt to grow in children's mouths. Gmelin's App. Med. vol. i. 346.

The German dispensaries have another composition called Ægyptiacum compositum magisterl, or Hildani, wherein treacle, mithridate, camphor, &c. are ingredients.

White Ægyptiacum is a composition of lily roots mixed up with aromatics; it is mentioned by Hippocrates, and is the same with what other ancients call cænium. It was used by the ladies of those days to linear over their faces, to preserve their complexion.

Hippocrates also speaks of another unguent under the same name, composed of the flowers of the Egyptian thorn. Farris make a red, as well as a black kind, of much the same ingredients, only with some difference in the proportions; used especially to soften the hoofs of a horse, when too hard.

ÆGYPTIAN PEbble. See Jasper.

ÆGYPTILIA, in Natural History, the name of a fome described by the ancients, and said, by some authors, to have the remarkable but imaginary quality of giving water, the colour and taste of wine.

This fome was variegated with veins of black and white, or black and bluish, with a plate or vein of whitish red, and seems to have been of the onyx, fardonyx, or cameo kind, none of which possess the property which some fanciful writers have ascribed to it.

ÆGYPTION, the name of a topic used by the ancients in uterine disorders.

ÆGYPTUM phærum ad aures. Aetius (Tetrab. ii. Serm. 2. c. 87) speaks of this as excellent for deturgig furtul ulcers of the ears, which he says it cures, though the patient were born with them.

ÆGYPTUS, in Fabulous History, the son of Belus and brother of Damascus, who, having fifty sons, married them to the fifty daughters of his brother; and by their father's order, each of them, except one, flew her husband the first night. Lynceus, who escaped, dispossessed his father Damascus of the kingdom, and reigned over the Argives for sixty-nine years.

ÆGYPTUS, in Ancient Geography, a name given by Homer to the Nile, and by which it was very generally distinguished in Ethiopia. It has been commonly supposed, that
That this name was given to it on account of its black colour; but Mr. Bruce (Travels, vol. iii. p. 65.) conceives, that as Egypt in the Ethiopian language is called Ṭy̱g, and an inhabitant of the country Gym, which means the country of ditches or canals, drawn from the Nile on both sides of the river, nothing is more obvious than to write Ṯgym, whence Egypt, and with its termination us or ou, Egyptian. See Nile. Plutarch (tom. ii. p. 1157), says, it was first called Melas, from Melas the son of Neptune, and that it was afterwards called Egyptus from Egyptus the son of Vulcan and Leneipphe who governed Egypt; and who was so delighted by the facilites of his daughter Agrippine in obedience to the Pythian oracles, as a means of securing the fertility of the country by the retreat of the Nile, that he threw himself into the river; and from this circumstance it obtained the appellation.

Egypt, a town of Laconia, which, according to Pausanias was destroyed by the Lacedemonians in the reign of Archelaus, whose reign commenced 957 years before Christ, and lasted forty years, because it inhabitant took part with the Arcadians.

AelioTulla, in Zolology. See Aetnula.

Aelchryson, in Botany, a name given to the Sedum major; called also Eintales.

Aenautæ, in Antiquity, senators of Miletus, who held their deliberations on board a ship, far from shore, and till matters were resolved upon, never returned to land. The Greek word aenautes signifies always mariners. Plut. in Quell. Rom.

Aezorion, aekon, from an always, and òn life, perpetu-

Aelana, or Elana, in Ancient Geography, a city of Arabia Petraea on the Red Sea, at the north end of the Arabian gulf. It is now called Athab.

Aelanic, Aelian, or Elanitic gulf, a bay of the Red Sea, verging towards the north-call, and belonging to Arabia; so called from the city Aelana, situated near it.

Aelea, a small place of Dardania, south-west of Sardica.

Aelen, Elen, Aia, Aquilegia or Halcydes, in Geography, a large market town in the canton of Bern in Switzerland, which was greatly damaged by an inundation in 1740. It gives name to one of the four mandements into which the government, lordship or county of Aelen is divided. This district, which was for some time subject to Savoy, was afterwards given to the landholders of the Valais, who in 1536 exchanged it with the city of Bern for another district called Gunds. This lordship itself, which is now managed by a governor residing in a seat on an eminence in the town of Aelen, consists of a tract of fertile hills and vales, producing fine fruits and excellent wines; and the richness of its pastures is manifested by its large breeds of cattle.

Aelfred, in Biography. See Alfred.

Aelfric, an eminent ecclesiastic of the tenth century, who was the son of an earl of Kent, and who, after some imperfect instructions, received from an ignorant secular priest, assumed the habit of the Benedictine order of monks in the monastery of Abingdon, over which Athelwold presided. When Athelwold was created bishop of Winchester in 963, Aelfric among other Abingdon monks was settled in his cathedral; and, in order to testify his gratitude, for the advantages which he had enjoyed under the tuition of Athelwold, he conformed to the wishes of his benefactor in communicating instruction to the youth of his diocese. With this view, he compiled his Latin Saxon vocabulary, and some Latin Colloquies. The former work was published by Sommer, under the title of a glossary, at Oxford in 1659. Aelfric also translated from the Latin into the Saxon language, most of the historical books of the Old Testament, part of which was printed at Oxford in 1698. At Winchester he also drew up his canons, a kind of charge to be delivered by the bishops to their clergy, which are preserved in the first volume of Spelman's Councils, and were composed, says his biographer, (sib. infra) between the years 985 and 987. Upon his removal about the year 991 mentioned to Corne Abbey, he translated from the Latin fathers, the first volume of his homilies. In 998 he was made abbot of St. Alban's, and composed a liturgy for the service of his abbey; and about the latter end of the year 1001, when he was bishop of Wilton, he translated a second volume of Homilies. Here he also wrote his Latin Saxon grammar, a supplement to his Homilies, a Tract dedicated to Sigward or Sigefrect, containing two epistles on the Old and New Testaments, which his biographer supposes to have been written between the years 987 and 991. In 994 Aelfric was translated to the see of Canterbury, where, after excelling himself with laudable spirit and prudence for some years, in defending his diocese against the incursions of the Danes, he died November 16th, in the year 1005. He was buried at Abingdon, but his remains were transferred to Canterbury in the reign of Canute. He is represented as the greatest prelate the Saxon church ever had since the days of St. Aethel; and as our first reformer next to king Alfred, by introducing the knowledge of the scriptures among the laity. For the times, it must be allowed, he was a man of considerable learning; his morals were irreproachable, and his faith was free from many of the corruptions which have disgraced religion. There was another Aelfric, named Bata, who was pupil of the former in the school established by Athelwold at Winchester, who was made archbishop of York in 1023, and died in 1051. Another of the same name was abbot of Malmesbury in 974, was created bishop of Crediton in 977, and died in 981. There were several other persons of this name. The celebrated antiquary Leland has expressed his doubts, whether Aelfric, the author of the Latin-Saxon grammar, was the same with the translator of the Homilies, or with the abbot of St. Alban's, who drew up the liturgy, which continued to be used there till his own times. Bale and Pits have ascribed these three works to three different persons. Whereas, archbishop Usher, by confounding Aelfric, archbishop of Canterbury, with Aelfric, archbishop of York, and with Aelfric, bishop of Crediton, has reduced into one person three men who were really distinct. See Edwardi-Roselinis Morelli de Aelfric, Dorobechii Archipiecopo, Commentarius; ed. per Dr. Thorkein, 410. 1789.

Aelia, an appellation derived from one of the names of Adrian, and applied to several towns.

Aelia adiana. See Zama.—Augusta mercurialis. See Thess.

Aelia Capitolina, a name given by the emperor Adrian, from Aelius that of his own family, and Capitolinus the epithet of Jupiter, to the new city which he caused to be built about A.D. 134, near the spot where the ancient Jerusalem stood; and which, on his visit to the eastern parts of the Roman empire, he found in ruins. Here he settled a Roman colony, and dedicated a temple to Jupiter Capitolinus in the ruin of that of Jerusalem. This profanation of the holy place irritated the passions, incited the rebellions, and aggravated the sufferings of the Jews during the reign of Adrian. The city was once more
The style of the latter is more elegant than that of the former, which does not seem to have had the least revival of the author. Aelian also wrote an accusation or invective against Heliogabalus, or, as some say, Domitian, under the fictitious name of Gynis Tyrannus. He also composed a book against *Athasis, or on Providence,* which is much commended by Suidas, and another *On Divine Appearance,* or the *Declarations of Providence.* Some ascribe to him the work intitled *'tactic,'* addressed to Adrian; but Perizonius is of opinion, that the author of this work was a native of Greece, of the same name, and that he lived about a century before Aelian. Those who wish to see more of the talents and writings of Aelian, the age in which he lived, and the various editions of his works, may consult Perizonius's preface to the first volume of the Varia Historia, by Gronovius.

AELIANUS_Mercurius, lived in the time of the emperor Adrian. Galen mentions him with respect. He had great confidence in the Theriac, as a preventative and cure of the plague.

AELII_Pons, in Ancient Geography, one of the fortresses in or near the wall built by Adrian, now Portland in Northumberland, between Newcastle and Morpeth.

AELIUS_Pons, now II pente S. Angelo, a stone bridge at Rome over the Tyber, leading to the Burgo and Vatican from the city, along the mole built by the emperor Adrian.

AELIUS_Maurus, in Biography, was a writer in the reign of the emperor Caracalla, who was then very old, and had been a slave to Phlegon, the freedman of the emperor Adrian. This writer is cited by Spartan in his account of the death of Severus.

AELLO, in Mythology, one of the three Harpies.

AELQUAPPE, in Mythology, the common name among the German nations of a full of the maiden kind, the viviparous *Eldidot,* called by Schonefeldt musella vivipara, and in some places acipute, adshnder and adshnitter.

AELST, Evert Van, in Biography, a painter, was born at Delft in 1662, and died at the age of 56 in 1658. In painting dead game, fruit, armour, helmets with plumes of feathers, or vases of gold and silver, he exhibited a striking resemblance of nature, and gave an extraordinary listle to the gold, silver and steel. Pilkington's Diet.

AELST, William Van, the nephew and disciple of the former, was born at Delft in 1620, and died in 1679. He excelled his master in the exercise of his art. His pencil was so light and his touch so delicate, that the objects he painted seemed real. Before the year 1656, he exercised his profession in France and Italy, and afterwards settled at Amsterdam; where his works were much admired, and sold for a large price. The grand duke of Florence honoured him with a gold chain and medal, in acknowledgment of his merit. Pilkington.

AELT, in Geography, an abbey of Benedictius upon the river Iitz, below Walfenburg, in Bavaria.

AELUSDONES, in Ancient Geography, a people of Germany mentioned by Ptolemey, and called Hillevienos by Pliny, and Helvii by Tacitus.

AELUR, a people placed by Suidas near the Alps, which separated them from the Gauls.

AELUROPOLIS, formed of *æleus, a cat,* and *œleus,* a town of Egypt, mentioned by Lemanius.

AELURUS, in Mythology, the god of the cats: he is represented by the ancient Egyptians, sometimes as a cat, sometimes as a man with a cat's head. Such was the vegetation with which cats were regarded by the Egyptians, that if a person killed any of them, with or without design, he

The ELEPHANT, a great animal, which is said to have been domesticated by the Egyptians, and to have been used by them in war, and to have been highly esteemed by them. It was used as a symbol of strength and courage by the Egyptians, and was sometimes depicted on their coins and sculptures. It was also used as a symbol of royalty and authority, and was sometimes depicted on the heads of their kings and emperors. The ELEPHANT was a large animal, with a long trunk, large ears, and a thick tail. It was also known for its intelligence and memory, and was said to be able to learn and remember many things. It was also known for its long life, and was said to live for many years. It was also used as a symbol of longevity and prosperity, and was sometimes depicted on the coins and sculptures of the Egyptians. It was also used as a symbol of power and authority, and was sometimes depicted on the heads of their kings and emperors. It was also known for its strength and endurance, and was said to be able to lift heavy objects and to travel long distances. It was also used as a symbol of strength and courage, and was sometimes depicted on the coins and sculptures of the Egyptians. It was also known for its intelligence and memory, and was said to be able to learn and remember many things. It was also used as a symbol of longevity and prosperity, and was sometimes depicted on the coins and sculptures of the Egyptians. It was also used as a symbol of power and authority, and was sometimes depicted on the heads of their kings and emperors. It was also known for its strength and endurance, and was said to be able to lift heavy objects and to travel long distances.
he was punished with death; and it is reported, that, in time of a famine, which compelled the inhabitants to devour one another, no person was accused of having tafted any of thefe sacred animals. See Diodor. Sicul. 1. 1.; tom. 1. p. 94. Ed. Weffeling.

ÆLURUS, in Zoology. See CIVYT. ÆLUS, in Ancient Geography, a borough of Arabia Felix, belonging, according to Ptolemy, to the Ælefar. 

ÆEM, Am, or AEm, a liquid measure used in moll parts of Germany; but different in different towns: the aem commonly contains 20 vertils, or 80 maffes; that of Heddberg is equal to 48 maffes; and that of Wirtenberg to 160 maffes. See Aam.

ÆMATHIA, or Æmathia, in Ancient Geography, a district of Macedonia, which received its appellation from Æmathus, a prince of remote antiquity, and extended as far as the Sinus Thermaceus, or gulf of Salonichi to the east. It contained several considerable cities, particularly Ægina. This district formerly gave name to the whole country of Macedonia.

ÆMILLA, one of the 17 provinces of Italy in the later divisions of the Roman empire, bounded on the north by the Po, on the east by the Adriatic gulf, on the south by the Apenines, and extending to the south east as far as Ariminum.

ÆMILLIAN way. See Roman ways.

ÆMILLIANA, a town of Spain.

ÆMILLIANI, Jerome, in Biography, was founder of the regular clerks of St. Macul in the 16th century. See Fathers of Somaglia.

ÆMILLIANUS, Æmilius, or C. Julius, a Moor of mean defect, who, having served from his youth in the Roman armies, raised himself to the first employments in the state, and became first consul, and afterward emperor. Under Gallus he was governor of Pannonia and Media; and in this faction he rallied the intimidated and dispersed forces of Rome, and by a signal victory routed the barbarians, who were spreading devastation through the Illyrian provinces, and terror as far as the gates of Rome itself. Having distributed as a donative the money collected for the tribute, he was proclaimed emperor on the field of battle by the acclamations of the soldiery. A. D. 253. Gallus, who was at this time head of the public welfare, and indulging himself in the pleasures of Italy, was routed out of his city by information of the success, revolt and hostile approaches of his aspiring lieutenant, now the declared emperor. Æmilius, by force of marches, hastened to Tarentum, now Turn, about 32 miles from Rome; and here he was met by Gal-}

...at Rhetia that he was dead, he quickened his march, and determined to revenge his death. The army of Æmilianus, composed of traitors to their former sovereign, lay encamped on the plains of Spoleto, and avowed by the character and forces of Valerian, who had no sooner arrived than they inlaid their hands in the blood of a prince who had been so lately the object of their partial choice. Thus Valerian obtained the possession of the throne, without wading to it through the blood of the Roman citizens. Æmilianus was killed at a bridge in the vicinity of Spoleto, which Vèctor the younger pretends was denominated, from this circumstance, the bloody bridge. He died in the 46th year of his age, after a reign of three, or at most four months. Edilus (I. viii. c. 12. p. 255) does not rank him among the emperors; and in the chronicle of Alexandria and that of Nicephorus, Valerian is placed immediately after Gallus. According to Aurelius Victor (in Æmil.), he died a natural death. Anc. Un. Hist. vol. 13. p. 482, 8vo. Gibbon's Hist. vol. i. p. 408, 110, 8vo.

ÆMILLIUS, Paulus, the son of Lucius Paulus, who was killed at the battle of Canne, was born about the year of Rome 535; ante Carol. 224, and was twice consul. He lived, says Plutarch, in an age that abounded with great men, and took pains to be inferior to none of them. His first military command was in Spain, whether he went as prefect in the war with Antiochus, to quell a general revolt, in effecting which he succeeded. In his first campaign (ante Carol. 182.) he triumphed over the Ligurians, and on his return lived privately, and superintended the education of his children; and in the second, (ante Carol. 168.) subdued Perusus, king of Macedonia, reduced that country to a Roman province, and established a new form of government, from which circumstance he obtained the name of Macedonius. His behaviour, in consequence of his decisive victory, evinced him to be a man of strict justice; for, according to the rules of war, he gave the plunder of the camp to the infantry, and that of the adjacent territory to the horse. The cities he would not suffer to be touched: and as for the royal treasures he conveyed every part of them to Rome, though his integrity excited the ill-will of the army. In his progress through Greece, with a view of settling the division of the country, and establishing his new plan of government, he went to Epirus for the purpose of executing a decree of the Senate, which was so severe, that he could not read it without tears, though he could not demur in obeying it. This decree granted to the Roman army the pillage of the whole of the country which had adhered to Perusus. Æmilius distributed his troops in small bodies through the town, under a pretence of securing their liberty; but when the ten chiefs of the state had brought into the camp, in pursuance of their orders, all the gold and silver they could find, he allowed the soldiers, on a certain day and hour, to make booty of the remaining property of the poor inhabitants; of whom 150,000 were made slaves, and sold for the benefit of the republic.

His conduct towards Perusus, the vanquished and degraded sovereign, manifested nobleness of mind. When the king's ambassadors approached, he said to those that were near him, "Mark the inconveniency of fortune; this man, who but the other day thought the ample kingdom of Macedonia nothing, whilst he was hindered from subduing the Dardanians and Illyrians, now confined in a narrow island, feeds these poor men to ask favours." When Perusus entered his tent, and would have thrown himself at the feet of the confid, he rose hastily, gave him his hand, and would
ÆMILIANUS, one of the Latin historians, flourished under the emperor Marcus Aurelius. He composed a history of all those who attempted to usurp the sovereign power, and brought it down at least to the year 175, for he wrote the life of Avidius Cassius. He is quoted by Vulcatius Gallicanus, who lived under Diocletian.

ÆMILIIUS PAULUS, a celebrated historian, was a native of Verona, and gained such reputation in Italy, that he was invited into France by Louis XIII., in order to write a Latin history of the kings of France, and had a canonry granted him in the cathedral of Paris. He was thirty years in writing this history, and yet it was not completed at his death. Eranus says of him, that he resembled the painter Protogenes, who thought he had never finished his pieces: thus, says he, Paulus Æmilius is never satisfied with himself. It was his usual custom to revise and alter his own performances, that they would hardly be known to be the same; and this made him so flow, that elephants could bring forth sooner than he could produce a work. Lipsius speaks of his history and manner of writing in terms of high commendation. It is divided into ten books, and extends from Pharamond to the fifth year of Charles VIII., in 1488. The tenth book was left unfinished; but the history was continued in nine books to the close of the reign of Francis 1. by Arnoldus Ferronius, and the continuation was published at Paris in 1550. Æmilius, as to his private life, was a man of exemplary conduct and irreproachable reputation. He died at Paris in 1529, and was buried in the cathedral.

ÆMILIUS POS, one of the bridges of Rome, called also Sublatus, because it was built on piles.

ÆMINES PORTUS, were situated in a small island of Gaul, now called Embrics, between Tauroctomum on the north-west and the promontory Citharites.

ÆMINIUM, a town and river in Spain mentioned by Pliny (tom. i. p. 228.), now called Aguda. This town was situated in the province of Lusitania, near the northern bank of the Monda, a little to the south of Talbriga.

ÆMOBOLIUM, in Antiquity, the blood of a bull or ram, offered in the sacrifices, called taurobolia and criobolias; in which sense the word occurs in ancient inscriptions. Reichenius and Vandale take it for a corruption, and alter it to Agobolium. M. de Boze defends the Æmobolium.

ÆMODE, or EMOIX, in Ancient Geography, islands of the Ocean to the north of Great Britain.

ÆMONA, Lathbec or Laybdi, a Roman colony and a fortified place in Italy to the east of the Julian Alps.

ÆMONIA, one of the ancient names given to Thessaly.

ÆN, or AIN, a village of Jutia, belonging to the tribe of Judah, and afterwards comprehended in that of Simeon, and assigned to the Levites of this tribe.

ÆNA, or AINA, a town of Arabia Felix; and also a town of Macedonia.

ÆNEIA. See ÆNIADE.

ÆNARIA, an island in the bay of Cumae, or opposite to Cumae in Italy. It derived its name, says Pliny (l. iii. c. 6. tom. i. p. 160.) from its being the flattening of the ships of Æneas. It is called Iarina by Virgil (Æn. ix. v. 716.), by Ovid (Metam. l. xiv. v. 89. t. ii. p. 930. Ed. Burn.), and by Silius Italicus (l. viii. v. 542. p. 436. Ed. Dacre.), and it is now Ischia. It has not been improbably conjectured, that this island was, at some former period, violently separated from the continent by an earthquake. The evidences of such a disruption are calcined rocks,
rocks, numerous caverns, and the nature of the soil, which yields a great quantity of alum. About the year 1459, Bartholomew Perdis, a Genoese merchant palling by this island, observed several aluminous rocks along the coast ; some of which he calcined in a furnace, and thus obtained excellent alum. By this discovery he was enabled to revive the art of making alum, which had been neglected in Italy for many centuries, and which he brought from Rocean, in Syria, where he traded for many years.

About 163 years before this period, it is said that the most pleasant and fruitful part of this island was destroyed by a volcano, and that a small town was consumed by the flames which issued from it, and afterwards swallowed up. Grevel Thefaur. Antic. et Hist. Italiæ, vol. ix. p. 3. p. 88. For other authorities to the same purpose, see Beckman's Hist. Invent. et Dificov. vol. i. p. 303, &c.

ÆNARIUM, a grove of Achaea consecrated to Jupiter, where, as Strabo (tom. i. p. 593.) informs us, the Achaeans held their public assemblies.

ÆNEA, or ÆNIS, a city of Mygδδia in Macedonia, at the southern entrance of the Theffalonian Gulf near the island Pallene, is said to have been founded by Æneas. On the promontory adjoining to this city there was a temple of Venus, according to Dion. Halicarn. the foundation of which is attributed to the same person. See Dion. Halicarn. l. i. t. i. p. 30. Ed. Oxon. Livy, l. xii. c. 14. t. v. p. 432. Ed. Drahemb. Stephan. de Urb. p. 44. Livi, (l. xiiiv. c. 10. t. v. p. 752.) places Ænia in a fruitful country, about fifteen miles from Theffalonica and opposite to Pydna; but this must be laxly interpreted, as Pydna was near the river Achaemon, and Ænia was probably near the upper part of the Thermaic bay. Ænia has been sometimes erroneously confounded with Æneas.

ÆNEAS, in Entomology, a species of Papilio, with black wings, a green spot on the upper part of the pri- morses, and a languishing spot on the pollint. It is found in India.

Æneas, in Fabulous History, was a Trojan prince, the son of Venus and Anchises, who, at the destruction of Troy, is said, probably by poetical fiction, to have carried away his aged father and his household gods on his back. Hence, it is called, Virgil distinguishes him by the epithet Pius. See Ælian, Var. Hist. tom. i. p. 264. He also led his son Aeneas by the hand, and thus saved his father and son, &c. from the Greeks; but he left his wife Crensa in the escape. Some say that he and Antenor betrayed the city of Troy. But Virgil, desirous of maintaining his resemblance to Ulysses in all his adventures, excuses him. After the siege of Troy he landed in Africa, and was kindly received by Dido; but quitting her coals, he arrived in Latium or Italy, where he married Lavinia, the daughter of king Latinus, who thus secured to him the throne of Latium. The story of the loves of Dido and Æneas, though an interesting part of the Æneid, is allowed to be a mere poetical ornament, introduced by a foreign anachronism. Æneas, as a testimony of his gratitude to Latinus and affection for Lavinia, gave her name to the camp he had pitched, and, instead of Troy, called it Lavinium. The Trojans followed the example of their leader, and by marriages, forming alliances with the Latin families, became, in a short time, one and the same people with the Latins. In the mean time Turnus, who had been contracted to Lavinia, and who was disappointed in his expectations by her marriage with Æneas, went over to the Rutuli; and excited a battle between them and the Latins, in which both, he and Latins were killed. Thus Æneas, by the death of his father-in-law, and of his rival, obtained the quiet possession of the kingdom of Latium, which he governed with great wisdom, and transmitted to his posterity. Æneas is said to have reigned three years, in which time he established the worship of the gods of his own country, and to the religion of the Latins added that of Troy. The two Palladins, which had been the protectors of that city, became the tutelar deities of Lavinium, and in succeeding ages, of the whole Roman empire. The worship of Vesta was likewise introduced by Æneas, and probably by his means Jupiter, Venus, and many other deities, who had been revered in Troy, became known to the Latins; from which circumstance some have supposed that the poets took occasion to represent him under the character of a pious hero. The Rutuli, in the mean while, entered into an alliance with Mezentius, king of the Tyrrenians, and united with them in their attempts to drive out thee new adventurers. Æneas engaged them in a battle, which lasted till night; when being driven to the banks of the Numicus that ran close by Lavinium, he was forced into the river, and was there drowned, in the year of the Julian period 3538, ante Chrifl 1176. The Trojans concealed his body; and pretending that he had suddenly vanished away, made his credulous subjects regard him as a deity; and they accordingly erected a temple to him under the title of Jupiter Indiges. Virgil has immortalized this prince, by making him the hero of his Æneid.

Æneas was succeeded by his son Aeneas, so called from a river of Phrygia of that name, and denominated Julius from Ilus, formed from Ilion or Troy, who founded Alba Longa as the capital of his kingdom. See Dion. Halicarn. l. i. p. 34. 51. tom. i. Ed. Oxon. 1704. Livy, l. i. c. ii. and 2. tom. i. p. 18.-21. Ed. Drahember.

Æneas of Gaza, a sophist by profession, was originally a disciple of Hierocles, and a Platonic philosopher, but afterwards became a Christian, and flourished about the year 487. He himself affirms us, that he saw the African confidors, whose tongues were cut out by Hunican king of the Vandals, in 484, under the reign of the emperor Zeno; and that he heard them speak. This supernatural gift of the African confessors, who spoke without tongues, says Mr. Gibbon (History of the Decline and Fall of the Roman Empire, vol. vi. p. 295, 8vo.) will command the assent of those, and of those only, who already believe that their language was pure and orthodox. But the stubborn minds of an infidel is guarded by secret incurable suspicion; and the Arian, or Socinian, who has seriously rejected the doctrine of the Trinity, will not be shaken by the most plausible evidence of our Athanasian miracle. Æneas composed a dialogue, entitled "Theophraustus," on the immortality of the soul, and the resurrection of the body; besides twenty-five epistles, still extant. The dialogue was first translated into Latin, and published at Basle in 1516, in Greek and Latin, at Basle in 1560, with other pieces, at Leipsic in 1568, with a translation and notes by Barthius, in 4 to. See Biblio. Patrum, tom. viii. p. 664. 665. Cave's Hist. Liter. p. 297, and Fabriceus, Bibl. Graec, tom. i. p. 427.

Æneas, Tacitus, one of the most ancient-Greek authors who have written on the art of war. He lived about 300 years before the Christian era. The age in which he lived is settled by Cavaubon, who informs us, that Cines, who was a disciple of Epicurus, and an ambas- sador from Pyrrhus to Rome in the 12th Olympiad, composed: an epitome of the works of Æneas. His work was published by Cavaubon, in Greek and Latin, with notes, and it is annexed to his edition of Polybius, printed...
Although he declaimed, with all the powers of his eloquence against the Turkish war, when he was secretary to the emperor, and delivered, from his own experience, the repugnant state and spirit of Chirilanges; yet, when he was raised to the papal throne, he devoted his life to the prosecution of this war. With this view, he attended a convention of princes at Mantua; but when the pontiff appeared at Ancona, to embark in person with the troops, engagements vanished in excited; a precipice day was adjourned to an indefinite term; and his effective army consisted of some German pilgrims, whom he was obliged to dilate with indulgences and alms. The French, who had incurred the pope’s displeasure by appealing to a council in defence of the PragmaticSanction, opposed this measure; but he seems to have been placated by the consent of Louis XI., in 1461, to abolish that edict, which the parliament of Paris had so lately and so vigorously supported. In the following year, 1462, he interposed in a dispute which took place between the Cordeliers and Dominicans, and inflicted a bull forbidding them to brand one another with the odious epithets of heretics. In the exercise of his high office, Pius exerted himself with spirit and activity in bringing many conclaves to a peaceful termination, and in settling the claims of various princes. During his pontificate he released ambassadors from the Patriarch of the east; who protested their unanimous agreement to submit to the pope as vicar of Jesus Christ. At Ancona, whether he repaired for the purpose of embarking in the prosecution of the Turkish war, he was seized with a fever, which terminated in his death, on the 14th of August, 1464, in the 59th year of his age.

Spodanus, in his ecclesiastical Annals, says, that he was inferior to none in learning, eloquence, dexterity, and prudence; and the cardinal of Pavia, in his speech to the concile, concerning the choice of a successor, pronounces this eulogium on Pius II. that he was a pope who had all the virtues in his character; and that he had merited the utmost commendation by his zeal for religion, his integrity of manners, his mild judgment, and profound learning. Ambition, however, seems to have been his ruling principle; and his conduct furnishes an example, in addition to many others, of the veracity which a change of circumstances produces in persons that are influenced by this principle. The verse of Virgil’s Enid, (lib. i. v. 382) which begins—

_Sum pius_ Enecas—

and the end of the following verse—

_fama super Eternae notus_, have been applied to him.

A history of his life, supposed to have been written by himself, was published by his secretary, John Gobelin. It was printed at Rome in 1460, in 1584 and 1589, and at Frankfort, in folio, in 1614. We have an edition of _Enaeis_ Sylvius’s works, printed at Bafil, in folio, in 1551. His life is prefixed to the edition of his works, printed at Helmsland, in folio, in 1700.

Some apophthegms of _Enaeis_ are recorded, of which the following are a specimen: As a covetous man is never satisfied with money, so a learned man should not be with knowledge.—Common men should esteem learning as silver, noblemen prize it as gold, and princes as jewels.—The laws have power over the commonalty, but are feeble to the greater ones.—A citizen should look upon his family as subject to the city, the city to his country, the country to the world, and the world to God.—The chief place with kings is slippery.—And as all rivers run into the sea, so do all vices into the court.—The tongue of a fableman is a king’s greatest plague.—A prince who would trust nobody
The ancient Theseus, in Antiquity, the seamen in an army; including those who played trumpets, horns, lyres, drums, &c. The word is formed from *Aeneas*, on account of the brazen instruments used by them.

*Aeneid*, in Literary History, the title of Virgil's celebrated epic poem. The subject of this poem is very happily chosen: as nothing could be more noble, so nothing could be more interesting to the Roman people, than Virgil's tracing the origin of their race to a hero of such celebrity as *Aeneas*. Whilst the object was splendid in itself, the theme afforded the poet an opportunity of pursuing, by means of the traditionary history of his country, the future great exploits of the Romans, and of describing Italy and the territory of Rome itself, in its ancient and fabulous state. Dr. Blair thinks that there is no foundation for the opinion, advanced by some critics, that the *Aeneid* is an allegorical poem, bearing confluent reference to the character and reign of Augustus Caesar; or that Virgil's chief design in composing it was to reconcile the Romans to the government of that prince, who is personified under the character of *Aeneas*. In this poem, unity of action is perfectly preserved; one main object being always kept in view, which was the settlement of *Aeneas* in Italy, in order of the Gods. The episodes are likewise sufficiently connected with the main subject; and the nodus, or intrigue of the poem is, according to the plan of ancient machinery, happily formed. The wrath of Juno, who opposes the Trojan settlement in Italy, occasions all the difficulties which embarrass the undertaking of *Aeneas*, and connects, throughout the whole work, the human with the celestial operations. Hence arise the temple which throws *Aeneas* on the African shore, the passion of Dido, who endeavour to detain him at Carthage, and the efforts of Turnus, who opposes him in war. At last, however, Juno's resentment is placated, upon a composition with Jupiter, that the Trojan name should be sunk in the Latin, and the hero becomes victorious. The poem, however, is not free from imperfections: one of which is, that there are scarce any characters marked in the *Aeneid*. In this respect it is inferior to the *Iliad*, which abounds with characters and action. The character of *Aeneas* himself is cold and tame, and not marked with any of those strokes that touch the heart. His behaviour to *Dido* maintains its obscurity, which renders him unamiable. *Dido's* own character is well supported, and exhibits a figure more truly animated than any other which Virgil has chosen. Besides this defect of character in the *Aeneid*, the distribution and management of the subject are, in some respects, excusable. Allowance indeed ought to be made for an incomplete work; for it is said, that the six last books did not receive the finishing hand of the author; on which account he ordered, by his will, the *Aeneid* to be committed to the flames, which was happily prevented by Augustus. The wars with the Latins are inferior, in point of dignity, to the destruction of Troy, the intrigue with *Dido*, and the defeat into hell; and in the conduct of these wars, the reader, as Voltaire observes, is tempted to take part with Turnus against *Aeneas*. This defect might have been remedied by the poet's making *Aeneas*, instead of disfiguring *Lavinia* by killing her lover and occasioning her mother's death, and embroiling her country in a war, deliver her from the persecution of some rival, who was odious to her and to the whole country. The disjointing excellence of Virgil is tenderness. He was endowed by nature with exquisite sensibility; he felt every affecting circumstance in the scenes which he describes; and he knows how, by a single stroke, to reach the heart. This, in an epic poem, is the merit next to sublimity, and renders the composition interesting to every reader. The second book is one of the greatest master-pieces that was ever executed; and Virgil seems to have there exerted all the powers of his genius, as the subject afforded a variety of scenes, both of the awful and tender kind. The images of horror, presented by a city burning and sacked in the night, are finely mixed with pathetic and affecting incidents. The death of old Priam, and the family-pieces of *Aeneas*, Anchises, and Creusa, are as tender as can be conceived. The fourth book, relating the unhappy passion and death of *Dido*, has been always most justly admired. The interview of *Aeneas* with Andromache and Helenus in the third book; the episodes of Pallas and Evander, of Nausicaa and Endymion, of Lavinus and Mezentius, in the Italian wars, are striking instances of the poet's power of raising the tender emotions. The bell and most finished books, upon the whole, are the first, the second, the fourth, the fifth, the seventh, the eighth, and the twelfth. Virgil's battles are, in point of fire and sublimity, inferior to those of *Homer*; but there is one important episode, the defeat into hell, in which he has far exceeded Homer in his *Odyssey*. In all antiquity there is nothing equal, in its kind, to the fifth book of the *Aeneid*. Through the whole description of the invisible world, there is displayed a certain philosophical sublime, which Virgil's platonic genius, and the enlarged ideas of the Augustan age, enabled him to support with a degree of majesty far beyond what the rude ideas of Homer's age allowed him to attain. It is needless to say anything in praise of the sweetness and beauty of Virgil's numbers, which are universally acknowledged. Elegance and tender-ness are the distinguishing excellencies of the *Aeneid*. For the feebler passages of this poem, it ought to be admitted as an excuse that the *Aeneid* was an unfinished work. Blair's Lectures, vol. iii. p. 248—258.

A late writer, viz. M. la Harpe, in his *Lyceum*, or Lectures at the *Lyceum*, does not allow Virgil to be the inventor of a single incident, and scarcely of a verse, in his poem. He is not only accused of imitating Homer in his plan, his battles, and his principal events, as well as in his versification, but of plagiarising from the old poets Ennius, Puccius, Accius, and Svevius, and from his contemporaries Lucretius, Catullus, Tibullus, Varus, and Furius. It is confessed, however, that the 3d, 4th, and 6th books are great and admirable productions. The excellence of Virgil, in the estimation of this author, rests on the constant perfection of his style, so far as it seems possible. It is at once, he says, the delight and despair of all who wish to cultivate poetry; so that if he has not equalled Homer in invention, variety, or confluent interest, he has surpassed him in the beauty of particular parts, and in the fine taste by which he has embellished his narratives.

*Aeneas*, in Ancient Geography, called by Strabo *Aenestispolia*, an island of the Mediterranean, on the coast of Libya.

*Aenesiphrya*, a promontory, according to Strabo, and a port, according to Ptolemy, at the extremity of the

*Oo* Catabathmus
In a general sense, every dark saying, every difficult question, every paradox may pass for an anigma. Hence observing, having the name anigmata juris.

The signs were great dealers in the enigmatic language, their processes for the philosopher’s stone being generally wrapped up in riddles: *e.g.*

**Fuc ex norte et femina**

**fiasma evocamus, vect quaedam, trinacrimus, hic triquadrangulam, hic triangulam, hic viridem et hibris, hic hibris philosophorum.**

Barchusen has published an explanation of the riddles of chemists, alchemists, physicians, &c.

Among the anigmata of chemists, that called the Sybiline anigma, of which we had a copy in a MS. of Stephanus Alexandrinus.

**Enigmata saepeque**

**innumerous, obtusa inrure, to hint a thing darkly; of some, an obscure sense, difficult.**

The Latins sometimes call it *furipus, surpus, or suripus.*

The populace with us name it *riddle*; from the Belga *sexus, or the Saxon *arathum, to interpret.*

Fra. Junius defines an anigma to be an obscure parable, or allegory; and makes two kinds: the one graphus, rendering thefuscus more intricate and knotty, by a multitude of words; the other, *ut picta, conuniting of only one or two remote words, or allusions; as in Thalia, ch. xi. 1. where Jesus Christ is called *7253, forendus, rod. or branch.*

Fa. Bolours, in the memoirs of Travours, defines an anigma, a difficulty, or painting, including some hidden meaning, which is proposed to be guessed.

**Anigmata, painted, are representations of the works of nature, or art, concealed under human figures, drawn from history or fable. Thus Jesus Christ, in the middle of the doctors, repreffes the Bible, &c.**

A verbal anigma is a witty, artful, and abstruse description of any thing.

The use of anigmata was very great among the Egyptians. Galen thinks they might borrow their custom from the Hebrews, among whom, it is certain, anigma were not left us in use. Witness Samson’s riddle, Judges xiv. 12. 13. *I will now put forth a riddle to you, &c.*

**Vatable, an enigmatical problem:** the LXX. render it, *nunhena.* Solomon is said to have been particularly skilful in the solution of anigmata. Joseph. Antiq. lib. v. cap. 2. Clemens affurces us, that the Egyptians placed *jphanger* before their temples; to intitate that the doctrines of God and religion were *enigmatical and obscure.*

See Hieroglyphic.

Some represent the anigma as the same with metaphor: but the more exact writers make a distinction; though wherein the difference lies is not agreed on. Some make it consist in this, that the anigma properly imports something merry or jocose, and graphus a subject more grave and profound. Others reduce the difference to this, that in the graphus there is something captious, and capable of leading into a snare, which is not found in the anigma.

The rebus is also ranked by some in the number of anigmata.

Stephanus gives a mystical solution of this anigma. Moret will have it signify the name Jehovah, which, according to him, comprehends the number 1695, abutting one, the number contained in the anigma. Bremius maintains that the whole sum amounts to 1711, and that it represents the word *sostra.* The generality understand it of the word *articul,* or *apernikon.*

M. Leibnitz gives a very artful solution of it in this sense, by only supposing the A to stand for a thousand, and I for unity, as we sometimes find them used grammarians.

The operation of cupping, performed in ancient days by a machine of braies, is ingeniously represented by the following anigma:

**Apud videmis vos qui potes velut cipolam complevet ;**

"I saw a man, who, unprovoked, with ire,

Stuck braies upon another’s back by fire."


Aulus Gallus (xii. 6.) has preferred a Latin anigma, which he also calls a surpus or surpes, debated (lays Mr. Harris in his Philological Inquiries, p. 202.) with all the quibble of a barbarous age:

"Semel minuice, an his minus, (non fat scio)

An utrumque evum (ut quondam audivi dicier)

Jovi ipi regi noluit concedere."

It is thus translated by Mr. Harris: "Was it once minus, or twice minus, (I am not enough informed,) or was it not rather the two taken together, (as I have heard it said formerly) that would not give way to Jove himself, the sovereign."

"The two taken together, that is, once minus, and twice minus, make, when so taken, three minus: and three minus in Latin is ter minus; which, taken as a single word, is terminus, the god of boundaries. The meaning of the riddle coincides with the Pagan legend, which says, that when in honour of Jove the capitol was founded, the other gods consented to retire, but the god Terminus refused."

See Ovid’s Fasti, 1. iii. 667, &c. t. iii. p. 137. Ed. Burn.
The moral of the fable is just and ingenious, viz. that
boundaries are fixed, and never should be moved.

1. Medeniier has attempted to reduce the compo-

nition and resolution of enigmas to a kind of art,

with fixed rules, and principles, which he calls the philosophy of

enigmatic images.

1. Enigma, the subject of an, should be something calmly

conceived, and generally known.

2. Enigmas, the form of, consists in the words, which,

whether they be in prose or verse, contain either some de-

scription, a question, or a profopoeia. Those of the last

kind are the most pleasing, inasmuch as they give life and

action to things, which otherwise have them not. They

are commonly invoked either in a pun or metaphor, or

sometimes in both. In such fancies, contrary to the prin-

ciples of good metaphor, and good writing, perplexity is

caused, not by accident, but by design, and the pleasure

lies in being able to resolve it. To make an enigma, there-

fore, two things are to be pitched on, which bear some

resemblance to each other, as the sun, and a monarch; or a

ship, and a house; and on this resemblance is to be raised a

superstructure of contrivances to amuse and perplex. It is

easier to find great subjects for enigmas in figures than in

words, inasmuch as painting attracts the eyes, and excites

the attention to discover the sense. The subjects of eni-

gamias in painting are to be taken either from history or fable;

the composition here is a kind of metamorphosis, wherein,

c. g. human figures are changed into trees, and rivers into

metals. This conversion, however, does not depend merely

on caprice; there must be something of suitableness, and
even criution to authorise it. Thus the battle of Con-

stantine against Maxentius may be taken for the subject of

an enigma, to represent the game of chess: the sign which

appeared in the heavens with the words, in hac sphaera vinces,

may properly enough represent the secret of this game,

which consists in fying the king. It is much easier to turn

mythology into enigmas, than history. Accordingly several

have imagined, that the conquest of the golden fleece was

no other than the transmutation of metals; and that the

fable of Circe was the art of chemistry in enigma. Enig-

mas of pure invention are a kind of poetry, and more subtle

than those drawn from mythology; since here the matter

itself is to be created: instead of adopting some history or

received fable, something probable is feigned, the chief

action whereof is known, c. g. a shipwreck, a conflagration,

an amphitheatre, or the like. It is essential to enigmas,

that the history or fable under which they are presented, be

known to every body; otherwise it will comprehended two

enigmas instead of one; the first of the history or fable, the

second of the sense in which it is to be taken. Another

essential rule of the enigma is, that it only admits of one

sense. Every enigma which is suggestive of different inter-

pretations, is equally natural, is so far imperfect.

1. Enigmas, the solution or explanation of, forms a kind

of exercise, that is as difficult as it is amusing, and

that affords scope for invention and penetration. By

the solution of an enigma we are to understand the

discovery of a motto corresponding to the action

and person represented in a picture, taken either from

history or mythology. This motto must, either by itself

or its attendant circumstances, divert the spectator,

and furnish occasion for displaying wit, and introducing

pieces of poetry to illustrate the subject and awaken the attention

of the audience. Those enigmas which are expressed by

figures, are more difficult of solution than such as consist of

words, because images may have a greater variety of signi-

fications than words; so that to fix them to a particular

sense, we must apply every situation, symbol, &c. without

omitting a circumstance belonging to them. As there are

few persons in history or mythology that have not some

particular character, this character must be regarded, in

order to determine what the figure in any painting signifies,

and to discover how it agrees with the subject of which we

would explain it. Thus, if Proteus be represented in a

picture, it may be taken to denote inconstancy, and applied

either to a physical or moral subject, the character of which

is mutability; e. g. an almanack which expresses the vari-

able weather, fountains, heat, cold, storms, and the like.

The colours of figures may also help to unriddle what they

mean, e. g. white is an emblem of innocence, red of mor-

dality, green of hope, black of sorrow, &c. When figures

are accompanied with symbols, they are more determinate;

these being, as it were, the soul of enigmas, and the key

that opens the mystery of them. Of all the symbols that

occur in the writings of those who have treated of the sub-

ject, those only of Pythagoras are truly enigmatic, which,

under obscure proverbs, convey lessons of morality; as when

he uses the phrase fateram ne transferatis to signify, do no in-

jury. Some enigmas are so complicated, that no rules

will serve for the solution of them, and that they occasion

great perplexity to those who endeavour to interpret them.

Such is that ancient and celebrated enigma, called Alia

Lalia crispis, which has puzzled many learned persons, who

have directed their attention to subjects of this nature.

There are two copies of it, each of which claims authen-

ticity. The one, formerly engraved on marble and more

lately cut in fresh characters, by order of Achilles Volta,

is preserved by the family of Volta at Catarlta near

Bologna, and is as follows:

D. M.

Alia Lalia Crispi,

Nec vir, nec mulier, nec androgyia,

Nec puerula, nec juvenis, nec annis.

Nec calla, nec meretrix, nec pudica,

Sed omnia.

Sublata

Neque fame, neque ferro, neque veneno,

Sed omnibus.

Nec calo, nec aquis, nec terris,

Sed ubique jacet.

Lucius Agatho Priscius

Nec maritus, nec amator, nec bellerarius,

Neque marens, neque gaudens, neque flous,

Hanc.

Nec molent, nec pyramidem, nec spulchran,

Sed omnia.

Sic et nefcit cui posuerit."

Thus translated: Alia Lalia Crispis, who was neither male,

female, nor hermaphrodite; neither a girl, nor a young woman,

nor an old woman; neither a slave, nor a free man; but all these.

She shed neither by fasting, nor feasting,

nor poison; but by all these. She lies neither in the air, nor

in the water, nor in the earth; but everywhere. Lucius

Agatho Priscius, neither husband, nor lover, nor relation,

neither service, nor rejoicing, nor sweeping, this, which

is neither fruitful, nor pyramid, nor tomb; but all these;

but to whom, be known, and does not know."

The other copy of this enigma was found written in Gothic

letters in a MS. at Milan, introduced with A.M.P.P. D.

instead of D.M. his markus, which an anonymous author (Aeti.

Erud. L. M. Mart. 1732) interpreting the riddle of a

monument erected by one of the Alban family to his own

soul, deciphered thus: anima mea propria diec; at the end is

the following addition: viz.

O' o 2

"Hoc
Hoc est sepulchrum intus cadaver non habens, 
Hoc est sepulchrum extra non habens, 
Sed cadaver idem est et sepulchrum sibi.

i.e. "Here is a sepulchre without a corpse: here is a corpse without a sepulchre: the corpse and sepulchre are one and the same."

Of this enigma the solutions have been very numerous. On the four sides of the stone, on which it is inscribed, there are twelve different explanations, with the names of their fancious authors. Mario Michael Angelo will have it to be rain; Lictus, the beginning and ending of friendship; Cevantius, love; Pontius, the remains of three different persons; Turris, the materio perma; Barnard, an enunch, or the philosopher's stone; Agathas Scholafus, Niobe; R. van, the rational soul, or the idea of Plato; Bokhornius, a shadow; Ovid Montalbus, hemp; M. de Ciogone, pope Joan; Heumannus, Lot's wife; another anonymous person, the Christian church; Terrorius, music; Vosmonius, a lawsuit; and, to add no more, Count Malvaia, in a treatise intitled Hodi Lepita enigma non.nia refugia, interprets it of a daughter promised to a person in marriage, who died pregnant with a male child before the celebration of her nuptials. See Keyler's Travels, vol. iii. 264, &c. 8vo.

ENIGMATIC, something that relates to, or partakes of the nature of enigmas.

The philosophy of the Druids was altogether enigmatical.

The ancient fagcs in general affected an enigmatical way of writing, to conceal their doctrines from the populace. The Romans in Nero's time were obliged to have recourse to the like method, though for different reasons. The enigmatical characters of the Egyptians were a species of hieroglyphics, consisting of such as bore no natural resemblance to the things they represented. Such was the beetle, used to express the sun; the serpent, to represent the stars.

We read of an enigmatical mode professed by the Huguenots to Henry III. Schott has published an exposition of an enigmatical coin of the emperor Augustus, concerning which antiquaries have been long divided.

ENIGMATOGRAPHER, or ENIGMATIST, a maker or explainet of enigmas.

Hardouin, Vander Hardt, &c. are great enigmatists.

ENIGMATOGRAPHY, ENIGMATOGRAPHIA, composed of ἐνιγματογραφία, the art of making and revealing, or collecting enigmas.

Enigmatography, otherwise called enigmology, may be divided into general and particular. The first gives rules concerning the nature, kind, composition, and use of enigmas; the second confines the enigmas in particular sciences, or languages. Greek, Latin, Hebrew, philosophical, theological, &c.

Nie. Reiffer has a treatise, under the title of Enigmatographia.

ENIPPE, in Entomology, a species of Papilio, with roundish yellow wings, all of which are marked beneath with acerated points: the fore wings with fies, and the hinder with fovea. It is found in China.

ENITTOLOGIUS, in Poetry, a kind of verse consisting of two distyle, and three trochee. Such is,

Præa dira placet truci juvenis.

ÉNION, in Ancient Geography, a promontory near Éna, on the Thermaic gulf.

ÉNISUS, a small river of Dardania in Asia.

ÉNNAX, a small town of Egypt, mentioned by Pliny (i. i. p. 242.) called by others Philocrates, and now Suesquem.

ÉNOLA, in Geography, a market town of Naples, in the province of jurisdiction of Terra di Lavara. N. lat. 41° 15'; E. long. 15° 22'.

ÉNOMA, in Ancient Geography, a city of Liburnia, called by Pliny (t. i. p. 178.) Cevius Pafini, now Nova. It lies on the Adriatic, by which it is almost surrounded, over against the island Giffa, and distant from it about four miles to the west. M. d'Anville places it to the south of Jadera in Dalmatia.

ÉNUS, a river of Vindelecia, in Germany, which rises in the Rhetian Alps, and discharges itself into the Danube. It is now the Inn. Near this river was the town called Anci pons of Antonine, from a bridge that connected Noricum with that part of Vindelecia, inhabited by the Boii.

ÉNUS was also a river of the Cimbri Chertonenus.

ÉNUS was also a mountain of Cephalenia, one of the Greek Islands, where was a temple of Jupiter.

ÉNUS, ÆNOS, or ÆNUS, a town of Thrace, built, says Strabo, cited by Stephanus (de Urb. p. 45.) by the Cumanians, but according to Mela, who seems to mistake this town for Ænis, by the exile of Æneas. If it was founded by the Trojans, it was enlarged by the Cumanians. It is situated on one of the two mouths of the Hebrus. It was a free town, says Pliny (t. i. p. 264.) in which was the tomb of Polydorus; and was one of the towns of the Maroneans, being the other, on the Ægean Sea, conquered by Philip, the father of Perseus, and upon the defeat of the latter by the Romans, promised to Eumenes, king of Pergamus; but afterwards declared by the senate free and independent.

Liv. i. xxxi. c. 16. c. 31. t. iv. p. 534. 557. Ed. Drakenb. Polybius, p. 489. 854. Ed. Cudab. The epitaph derived from it is Ælius. It was also called Apollonius. Here, according to Plutarch, (t. i. p. 763. Ed. Xylander,) the brother of Cato of Utica died, and was honoured with a monument of marble in the forum of the Ænus. This town is now Eso.

Stephanus mentions four other towns of this name; one built by Ænus, the brother of Guneus; another, a city of Thessaly; a third, of the country of the Locrians; and a fourth, between Thaphicus and the Eniprites. There is also an island of this name adjoining to Arabia Felix.

ÆOLIAN ISLANDS are seven islands, situate between Sicily and Italy, in the Tyrrhenian or Tufcan sea; so called according to Pliny, (t. i. p. 164. Ed. Hard.) because Æolus reigned there in the time of the Trojan war. They were denominated by the Greeks Hephaestids, and by the Romans Vulcanites, from their fiery eruptions. They were also called by Strabo, (t. i. p. 394.) ἄειόνιοι νησίς, i.e. Liparicae insulae, from Lipara, the chief of them. Their names, according to Pliny, with whom Dioscurus Siculus, (l. c. c. 7. t. i. p. 335. Ed. Wellcome,) agrees, are Lipara, Hieria, Strongylia, Didyme, Erychia, Phronemus, and Euonymos. They are now called, Isole di Lipari. Poleno mentions fifteen of these islands; but he includes in the number several other little islands, which are too far distant to be properly included under the denomination of the Æolian islands.

ÆOLIC, in a general sense, denotes something belonging to Æolus.

ÆOLIC, or ÆOLIAN, in Grammar, denotes one of the five dialects of the Greek tongue. It was first used in Bocotia; whence it passed into Æolia, and was that in which Sappho and Alceus wrote. We find also a mixture of it in the writings of Thucydides, Pindar, Homer, and many others. The Æolic dialect generally throws out the aspirate or sharp spirit, as ἐπις for ἐπις, day; draws back the
the ascent, as ψηφος for πτωμις, river; changes α into οι; as μιλας for μιλας, black; and α into ωι, as ωιρων for ωιρων; and in the singular α into οι; puts άας for πας, ωσως for ωσως; and β before ρ, as βραβος for βραβος, a roof; changes two μι into two πι, as οπταις for οπταις, the eyes; and it agrees in so many things with the Doric dialect, that the two are usually confounded together, and have been almost entirely followed by the Latins. The Ενολικόν is a name given to the letter Ε, which the Ενολικιοι used to prefix to words beginning with vowels, as Εινες, for εινες; and also to insert between vowels, as Ει, for ει.

ΕΝΟΛΙΚΟΝ, Carmen Ενολικον, in Poetry, a kind of measure, consisting, first of an Iambic or Spondee; then of two Anapaests, divided by a long syllable; and, lastly, a common syllable. This is otherwise called caleps; and from the chief poets who used it, Archilochian and Pindaric.

Its type is, - - - - - - - - - -

c. g. "Ο Ενολικὸς κοπτόν ορϕ."  

ΕΝΟΛΙΠΙΚΟΝ, Ενολιφίλος, in Hydrodynamis, is an instrument consisting of a hollow metallic ball, with a slender neck, or pipe, arising from it. This, being filled with water, and then exposed to the fire, produces a vehement blast of wind.

This instrument, Des Cartes, and others, have made use of, to account for the natural cause, and generation, of wind.—And hence its name, Ενολιφίλος, from the term Ενολιφικός, a lover of Ενολία, the ball, or Ενολιφικός, the gates of Ενολία; Ενολιφικός being ruined in the god of the winds.

Sometimes the neck is made to screw into the ball, which is the most commodious way; because, then, the cavity may be the more readily be filled with water. If there be no screw, it may be filled thus:—Heat the ball red hot, and throw it into a vessel of water; the water will run in at the small hole, and fill about two thirds of the cavity.

If, after this, the Ενολιφίλος be laid on, or before the fire, so that the water and vessel become very much heated; the water being raised into vapour or effusive, will be forced out with great violence and noise; but it will be by intervals, and not with a continuous and uniform blast. Care should be taken that the aperture of the pipe be not stopped, when the instrument is put on the fire, and that the ball be not set upon a violent fire with very little water in it, otherwise the Ενολιφίλος will burst with a great explosion, and may occasion much mischief. The Ενολιφίλος is sometimes placed in a small carriage with wheels, and a cork is thrust into the extremity of the pipe. When the vapour has acquired sufficient strength to force out the cork, it will rush out with violence in one direction, while the ball and carriage move the contrary way. See a figure of the apparatus for this purpose in Plate 1, i. i. i. 2. 1. 2.

These phenomena the reader will be easily enabled to solve, from what is shown under the articles, Air, Water, and Rartfaction.

Chaucer suggests some farther uses of the Ενολιφίλος. 1. He thinks it might be applied, instead of a bellows, to blow the fire, where a very intense heat is required. This fact has been urged as an argument to prove the decomposition of water; but, in this case, it is not the flame which excites the fire, but the air which is driven before it; for an Ενολιφίλος will not produce this effect, but the contrary, unless a body of air be interposed between its aperture and the fire. Accordingly, Dr. Lewis condemns habituating the Ενολιφίλος instead of bellows, and says, that upon trial he always found that instead of exciting, it extinguished the fire. Com. Phil. Techn. p. 21.—2. If a trumpet, horn, or other sonorous instrument, were fitted to its neck, it might be made to yield music.—3. If the neck were turned perpendicularly upwards, and prolonged by a tube or hollow cylinder fitted to it, and a hollow ball laid on the orifice of the tube, the ball would be blown up, and kept fluctuating, or playing up and down, as in the stream of a fountain. And, 4. It might serve to scent or fumigate a room, if filled with perfumed, instead of common water.

An Ενολιφίλος has been sometimes placed in a chimney, where it can be heated, the vapour of which serves to drive the smoke up the chimney.

Dr. Plott gives an instance where the Ενολιφίλος is actually used to blow the fire: the lord of the manor of Ellington is bound by his tenure to drive a goose every new year's day three times round the hall of the lord of Hilton, while Jack of Hilton (a brazen figure having the structure of an Ενολιφίλος) blows the fire.

In Italy it is said, that the Ενολιφίλος is commonly made use of to cure smoky chimneys; for being hung over the fire, the blast arising from it carries up the loitering smoke along with it.

This instrument was known to the ancients, and is mentioned by Vitruvius, lib. i. cap. vi. and it is also taken notice of by several modern authors; as Des Cartes, in his Meteor. cap. i. apud Opera Philosophi. tom. i. p. 141.

F. Merkens, and some others have made use of this machine, to measure the gravity and degree of rarefaction of the air, by weighing the instrument, when red-hot, without water, and weighing it again when cold. But this method is liable to considerable objections. It supposes that there is no air in the ball when it is red-hot; whereas Varenius (Geog. vol. i. p. 438.) has shewn, that the air is rarefied but about 70 times; and, consequently, the weight, obtained by the above process, will be about 1-70th too small, or more or less, according to the intensity of the heat.

Some late authors have discovered a still more extraordinary use, to which the frauds of the heathen priesthood applied the Ενολιφίλος, viz., the working of fire and miracles. Besides Jack of Hilton, which had been an ancient Saxon image, or idol, Mr. Weber shews, that Phllar, a celebrated German idol, is also of the Ενολιφίλος kind; and in virtue thereof, could do noble feats; being filled with a fluid, and thus let on the fire, it would be covered with sweat, and as the heat increased would at length burst out into flames.

An Ενολιφίλος of great antiquity, made of brass, was lately dug up in the site of the Brinigikve canal, and presented to the antiquarian society of London. Instead of being globular, with a bent tube, it is in the form of a grotesque human figure, and the brass proceeds from its mouth.

ΕΝΟΛΙΣ or Ενολια, in Ancient Geography, a country of Asia Minor, so called from the Ενολια, who settled in this part of Asia, comprehended in former times the whole of Troas, and extended along the coast from Ionia to the Propontis; but in a more confined sense, it is situated between Troas to the north and Ionia to the south. According to Strabo (tom. 2, p. 872.) it extended from the premonitory Lectus to the river Hermus, and contained 11 cities, mentioned by Herodotus (i. i. p. 73. Ed. Welling) who observes, that Smyrna was taken from the Ενολια by the Ionians. Ptolemy, and after him M. d'Anville, affirms Cremona to the north, and Hermus to the south, as the limits of Ενολια. The Ενολια, according to Josephus, were descended from Ethipia, one of the sons of Javan; but according to the Greek historians from Ενολια, the third son of Τον, son of Ηλεκ, who was the son of Deucalion. They, as well as the Ionians
AEOLUS, a city of the Thracian Chersonesus. M. d'Anville places it at the entrance of the Hellepont to the north, and calls it, with Pliny, Etruscan.

AEOLUS, in Entomology, a species of Papilio, with undulated azure wings, a black spot on the primores, and a white band, fruited with black, under all of them; found in South America and India.

AEOLUS, in Mechanics, denotes a portable machine, not long since invented by Mr. Tidd, for refreshing and changing the air in rooms.

This machine is adapted in its dimensions to supply the place of a square of glass in a sash window, and is executed in so small a compass, as to project but a little way from the sash, and in so neat a manner, lays the inventor, as to be an elegant ornament to the place where it is fixed. It works without the least noise, requires no attendance, and occasions neither trouble nor expense to keep it in order. It throws in only such a quantity of air as is agreeable; and leaves off working, of its own accord, whenever the door or window is opened.

AEOLUS, in Heathen Mythology, the god of the winds, painted with swollen cheeks, like one who with main force endeavours to blow a blast; also with two wings on his shoulders, and a high-coloured fiery countenance. He is said to have been the son of Jupiter by Acasta, or Sigefia, the daughter of Hippotus; or, according to others, the son of Hippotus by Meneela, daughter of Hilias, king of Lipara. He dwelt, as some say, in the island Strongyle now Strombolo, one of the Aeolian islands; or, as others say, either at Rhegium in Italy, or in Lipara. The government of the winds is said to be under his direction and control. Some mythologists explain the fables relating to Aeolus by representing him as a wise and good prince, who was able in consequence of his skill in the sciences, by the flux and reflux of the tides, and the appearances of the volcano in the island Strongyle, to forecast storms and tempests. See Polybii Fragmenta, p. 988.

AEOLUS's Harp, in Music, an instrument so named, from its producing an agreeable harmony, merely by the action of the wind.—It is thus constructed.—Let a box be made of as thin deal as possible, (Plate 1, Music, fig. 1.) of the exact length answering to the width of the window in which it is intended to be placed; five or six inches deep and seven or eight inches wide. Let there be glued upon it at a a, two pieces of wainscot about half an inch high, and a quarter of an inch thick, to serve as bridges for the strings; and within these, at each end, under b b, glue two pieces of beech, about an inch square, of length equal to the width of the box, which are to support the pegs. Into these fix as many pins, such as are used in a harpsichord, as there are to be strings in the instrument, half at one end, and half at the other, at equal distances. It now remains to fitting it with small catgut, or blue frit fiddle-strings, fixing one end to a small brafs pin, as at c c (fig. 2) and twirling the other round the opposite pin at b b.

When these strings are tuned unison, and the instrument placed with the strings outward, in the window to which it is fitted, it will, provided the air blows on that window, give a sound like a dullant choir, increasing or decreasing, according to the strength of the wind.

The roes in the middle only represent found-holes; the thinner the top is, the better will the instrument perform. Mr. Thompson, in a note to his celebrated Ode on this instrument, ascribes the invention of it to Mr. Ofwald; whereas it was known to Kircher above a hundred years ago; and the method of constructing and using it is described by him in a book intitled Magia Phenomenica & Phenurgia.

An improved form of this instrument is represented in

[fig]
The strings, instead of being on the outside, are fixed to a sounding-board or belly within a wooden case, and the wind is admitted to them through an horizontal aperture. In this form the instrument is portable, and may be used any where in the open air.

Æolian's harp produces all the harmonics of a single string, divided in harmonical proportion. See Harmonics. The tension of the strings must not be great; as the air, if gentle, has not sufficient power to make them vibrate; and, if it blows fresh, the instrument does not ring, but resounds. Its crescendo and diminuendo, or the gradual advancing and retiring of its delicate tones, can only be described by the instrument itself.

Kircher has attempted to account for the phenomena of the Æolian harp, by supposing the current of air to strike on different portions of the string. But this is contrary to experience; for, if we suppose the Æolian note to be one-fifth above the original note of the string, that is, one third of the whole, then, according to Kircher, the remaining part would be at rest, which is not the fact; for an obstacle applied to any other point besides the quietest point of division, will destroy the Æolian tone. The chords also that would arise on this theory are not such as really take place in nature; thus, where the chord confists of the notes F and A, the first note F is produced, according to Kircher, by the blasts striking on one fourth of the string; and in this case, the remaining part of the string must be at rest according to Kircher, which is contrary to experience; or, if it be agitated as one string, it must produce the note of three-fourths of the whole string, that is, a fourth above the bass note; whereas, the note really produced is the double octave to the third above the bass note.

Mr. Young, in order to ascertain the order of the notes in this instrument, took off all the strings but one; and, placing it in a proper situation, he was surprized to hear a great variety of notes, and frequently such as were not produced by any aliquot part of the string; and he often heard a chord of two or three notes from this single string. These complex and extraordinary phenomena at first perplexed him; and he was almost desirous of being able to account for them on the principle of aliquot parts. On farther examination, however, he found that they all flowed naturally and easily from this principle. Having directed his attention to the effect of a current of air rushing against a stretched elastic string, he observed, that a blast against the middle point of the string moved the whole of it from its rectilinear position; and that the string by its elasticity, returned to its former position: so as thus to continue vibrating and exciting pulses in the air, which produced the tone of the entire string. If the current of air be too strong and rapid, when the string is bent, it will retain its curvature. But though the whole string cannot perform its vibrations in this case, the subordinated aliquot parts may; and these will be of different lengths according to the rapidity of the blast. Thus, when the velocity of the current increases so as to prevent the vibration of the whole string, these particles which strike against the middle points of the halves of the string agitate those halves, as in the case of sympathetic and secondary tones; and as these halves vibrate in half the time of the whole string, though the blast may be too rapid to admit of the vibration of the whole, yet it can have no more effect in preventing the motion of the halves than it would have on the whole string if its tension were quadruple: for the times of vibrations in strings of different lengths, and agreeing in other circumstances, are directly as the lengths; and in strings differing in tension, and agreeing in other circumstances, inversely as the square roots of the tensions: and therefore, their vibrations may become strong enough to excite such pulsation as will affect the drum of the ear; and the same may be said of other aliquot divisions of the string. Those particles which strike against such points of the string as are not in the middle of aliquot parts, will interrupt and counteract each other's vibrations, as in the case of sympathetic and secondary tones, and therefore will not produce a sensible effect. These principles are illustrated and applied by Mr. Young in his "Enquiry into the Principal Phenomena of Sound and Musical Strings," printed at London in 1784. 8vo.

ÆON, AEON, æon, æon, literally signifies the duration of a thing. But the word has been used by Greek writers in different senses. It was first applied to the age of man, or the duration of human life. In succeeding times it was used by philosophers to express the duration of spiritual and invisible beings.

Æon was used to denote the measure of corporeal and changing objects; and æon or æon, for the measure of such as were immutable and eternal. And, as God is the chief of spiritual and immaterial beings, his eternal duration was expressed by this term, and thus it is now commonly understood. It was afterwards attributed to other spiritual and invisible beings; and the oriental philosophers, who lived about the time of Christ's appearance, and made use of the Greek language, understood by it the duration of eternal and immutable things, the space or period of time in which they exist. By a metonymy, the term was employed to signify the beings themselves. Thus, the Supreme Being was called Æon, or Æon; and the angels also distinguished by the title of Æons. Accordingly, the Gnostics, who had formed the notion of an invisible and spiritual world, composed of entities or virtues, proceeding from the Supreme Being, and succeeding each other at certain intervals of time, so as to constitute an eternal chain, of which our world was the terminating link, assigned to the beings that formed this chain a certain term of duration, and a certain sphere of action. These terms of duration were at first called æontes, æons, and they themselves were afterwards metonymically distinguished by that title. Mosheim's Eccl. Hist. by Maclaine, vol. i. p. 89. 8vo.

Some have affixed another idea to the word æon; in order to which they have made use of the philosophy of Plato, giving reality to the ideas which that philosopher had imagined in God; and even personifying them, and regarding them distinct from God, and to have been produced by him: some male, others female. See Platonism.

These ideas they call Æones; of an assemblage of which they compose their deity, calling it Æoliparos, a Greek word, signifying fulness.

Some say that Simon Magus was the first inventor of these Æones, which seem, however, to have sprung from the oriental philosophy, and which were adopted by the Gnostics; afterwards brought to perfection by Valentinus; who, refining on those who preceded him in this way, produced a long genealogy of Æones, to the number of 30. The first, and most perfect, he particularly denominates Πνεῦμα, Pneum, that is, pre-existent; beside other names, the most usual whereof was that of Bythos, BYTHOS, depth.

This Bythos, he says, continued long alone with Erotos, Ἐρως, Thought; whom Valentinus also called Εὖνος, Gunnos, and Σωφία, Silence. At length Bythos, with Sige, produced Nous, Νοῦς, Understanding; and Αληθέα, Truth, her sister. Nous begat two Æones: LOGOS, LOGOS, Word; and ZOA, ZOE, Life, which begat two others: Anthropos, Ἀνθρώπος, Man; and Βασίλεια, Church. And these eight Æones were the chief of all the rest.
The _World_, _Age_, and _Life_, 7th, Legat ten other zones: _Men_ and the _Church_, Legat twelve more; among whom were, the _Paraclete_, _Fruit_, _Hope_, _Charity_, the _Perfected_, _Tolus_, and _Riffion_, 279v. And thus were thirty zones made up; which, altogether, made the _Pleroma_, _Heresies_, or _spiritual and invisible phantast_. See _Gnostics_, and _Valentianians_.

As likewise, in the _Phoenician_ _Theology_, was the first created woman.

ÆQVA, in the _Medical Writings of the Ancients_, is used for gellation; which sort of exercise was often preferred by the physicians of those days. Other exercises confin'd principally in the motion of the body; but in the æqua the limbs were at rest, while the body was carried about and moved from place to place, in such a manner as the physician preferred. It had therefore the advantages of exercise, without the fatigue of it.

This exercise was promoted several ways; sometimes the patient was laid in a sort of hammock, supported by ropes, and moved backward and forward; sometimes his bed run nimbly on his feet. And beside these, the several ways of travelling were accounted species of the æqua, whether in the litter, in a boat or ship, or on even ground in a chariot.

Achæpiades was the first who brought gellation into practice, which was used as a means to recover strength after a fever, &c.

ÆPEA, in _Ancient Geography_, a city of Laconia, according to Stephanus (of urb. p. 46v.), and of Meffenia, according to Strabo (t. i. p. 555.), who calls it Thuria, and deduces its name from its situation on the top of a hill. It is one of the seven cities promis'd by _Aegyamon_ to Achilles, and is mentioned by _Hom._, ii. i. v. 152.

"_Kaiou y' Ἀεπαὶ Πεδαμφοιοι φυτεύονται._"

Pulechramque _Æpeam_, Pefadamque uiturrem._"

Stephanus mentions another city of this name in _Cyprus_, built by Demophon, the son of Thefeus, on mount Clarion, which was afterwards called _Soloi_ in honour of _Solon_; and another in _Crete_.

ÆPOLIUM, a place situated, according to _Pliny_, between the _Danube_ and _Tyras_._

ÆPy, a city of Meffenia, so called, says Stephanus, from its being fortify'd; but more probably from its elevated situation, to which _Statius_ refers (_Theb._ i. iv. p. 421. Ed. Varior._

"Et fummis ingens montibus Æpy._"

ÆQUABONa, a town of _Lusitania_, to the south of the _Tagus_, near its mouth, and in view of _Olibippo_ or _Lilbon_.

ÆQUANA _Juga_, mountains of _Picenum_, in _Naples_, now called _Montagna di Sorrento_, denominated from the town _Ægua_, which, being destroyed, was replaced by _Vicus_, now _Vico di Sorrento_, called also _Æquana_. Thus, _Silius Italicus_, _Punic._ i. v. p. 276. Ed. Drakenb.

"Æ felicis Baccho
Æquana, et Zephyro Surrentum molle fulubri._"

ÆQUATA, Superficies, in _Botany_, denotes a surface devoid of all inequality; and differs from _planus_ in not requiring the part to be level, or in a rectilinear direction, but often occurs in round bodies, as in the pedicles of _Ixia_.

ÆQUI, _Aqicoli_, or _Equicii_, in _Ancient History_, inhabitants of Italy, who were situated between the _Sabines_ and _Latinas_, and whose capital city was _Bolo_. M. d'Anville places them on the banks of the _Anio_, with the _Sammites_ to the north and the _Marrucini_ to the east; but others apprehend that their territory extended farther south, so as to comprehend _Algidum_. They are mentioned under the different appellations above-quoted, by the historians and poets; and are described as a hardy and valiant people, who were much employed in agriculture, and also in military exercises. Thus _Virgil_, _Aen._ i. ix. v. 608.

"Æquum
Aut ratis terram domat, aut quas optis bella._"

And _Virgil_'s description seems to be borrowed by _Silus_ _Italicus_, when speaking of _these_ people, _Punic._ l. b. 1371, p. 419, he says—

"Æquilis dominat _Æquicula_ terram._"

The etymology of their name has been ascertained by _M._ _Gebelin_ to the word _equus_, or _ereu_, _erat_, expressing their situation near the sources of the _Anio_, _Telomus_, &c. which was more aquatic than any part of _Latium_. Others have supposed, that the _Equi_, who were distinguished by their love of justice, furnished the epithet _equus_, _jupp._ _Livy_ discriminate's them from the _Latinas_, when he represents them (_l._ ii. i. c. 35. t. 1. i. p. 369. Ed. Drakenb.) as invading their territory. They had frequent wars with the _Romans_, as _Livy_ has inform'd us (i. 2—10.) but were at length subdued by them. Their capital _Bola_ was taken by _Camillus_ in the year of _Rome_ 369, and their country was soon after laid waste, in order to deprive them of the power to revolt. They still, however, retained their enmity against the _Romans_; and, when occasion offered, joined the other enemies of _Rome_. About the year _U.C._ 449, they united with the _Sammites_; but they were no more that formidable nation, which had often struck terror into the Roman legions; insomuch had enervated them; and they were unable to maintain the field in their contest with the disciplined armies of _Rome_. At this time their country was overrun and laid waste. The conquerors took possession of forty-one towns in fifty days, most of which they razed or burnt, and thus they almost exterminated the whole nation of the _Equi_. _Anc._ _Ur. Hist._ vol. x. p. 324.

The cities _Cliterum_, _Carauli_ or _Curula_, _Valeria_, _Sublaqueum_, _Algidum_, _Vicovaro_, _Treba_, _Vetilla_, _Corbio_, and _Subiaeco_ belonged to the _Equi_.

ÆQVISÆLÆLUM, in _Roman Antiquity_, a name given to that part of the city of _Rome_ on which _Boile_ of _Sp. Mulinus_, who attempted to usurp the supreme power by bribing the people, and who, refusing to appear before the dictator _Cincinnatus_, was put to death by _Servilius_ _Ahala_, master of the _horae_. His house was demolished, and the region of the _city_ in which it stood was called _Arca_ _Æquilælælæ_. _Livy_, t. i. p. 919. Ed. Drakenb.

ÆQUOINCTIUM, in _Ancient Geography_, a town of Upper _Pannonia_, which is placed by M. d' _Anville_ on the _Danube_, south-east of _Vindobona_.

ÆQUUM, a Roman colony of _Dalmatia_ in _Illyria_, placed by _M._ _d'Anville_ north-east of _Scardona_.

ÆQUUS _Tutius_, a place of Italy in the _Sarnium_, north-east of _Beneventum_, the term _Tutius_ in _Samnite_ being synonymous with _maiorus_. A Roman word, called _Æquosticus_, paffed by this place towards _Camilla_. The ruins of it may be seen near _Bona-Albergo_.

ÆRA, in _Chronology_, a fixed point of time, from whence to begin a computation of the years ensuing.

The word is also sometimes written in ancient authors, _era_. Its origin is contended, though it is generally allowed to have had its rife in _Spain_. _Secundius_ supposes it formed from _A_ _E.R.A._ the note or abbreviations of the words, _anno_ _erat_ _Aquilia_; occasioned by the Spaniards beginning their computation from the time their country came under the dominion of _Aquilus_, or that of their receiving the _Roman_ _calendar_. This opinion, however ingenious, is rejected by _Sealiger_, not only on account that in the ancient abbreviations _A_ never stood for _anno_, unless when preceded by _V_ for _visita_; and that it seems improbable they should put
put ER for erat, and the letter Α, without any discrimination, both for anus and Augustus. Volvius nevertheless favours the conjecture, and judges it at least as probable as either that of Idiore, who derives erat from ες, the tributemoney, wherewith Augustus taxed the world: or that of Scaliger himself, who deduces it likewise from ες, though in a different manner. ες, he observes, was used among the ancients for an article, or item, in an account; and hence it came also to stand for a sum or number itself. From the plural œra, came by corruption eræ, eram, in the singular; as often, ofh, the name of a place, from ὥ, the mouth of the Tyber.

Æra amounts to the same with epocha; though some authors make a difference between them; but wherein it consists they do not agree. A late critic affirms this difference, that in strictness of speech, epocha is that fixed point where an æra made use of commences. Bibl. Germ. tom. v. p. 172. Vallemont makes another difference, viz. that an epocha is a point fixed by chronologers, and an æra a like point, only fixed by the popular usage of a country, or nation. Perhaps it might not be amiss if chronologers would keep to this difference, but it is certain most of them hitherto use the two words promiscuously. The proper idea of an æra, as it is now generally understood, is that of a series of years, reckoned from a fixed point of time, called an epoch or epocha. Thus we say, that the Christian æra began at the epoch of the birth of Christ, and any particular year is such a year, according to the date of it, of the Christian æra. The particular æras are mentioned under epocha. See also Chronology.

Æra is also used, in some writers of the barbarous age, for any year.

In which sense, we meet with entering down the æra, the eleven hundred and eighty æra, &c.

ÆRÆ, in Ancient Geography, a town of Macedonia, and another of Ionia in Asia Minor, according to Stephanus Byzant. and a people of Asia towards Gedroia or Germania according to Ptolomy.

ÆRARIUM, the public treasury of the Roman state.

The temple of Saturn at Rome, being the great treasury of the state, was first called ærarium; from ες, æris, copper; that being the only money in use before the year of Rome 455, when the silver began to be coined.

It was first erected under Augustus, and maintained by a yearly voluntary contribution; but that proving insufficient, the twentieth part of all legacies and inheritances except of which fell to the next of kin, or to the poor, were configned to this treasury.

For the custody hereof, three of the emperor's life-guards were constitted praefidet ærarias.

Ærarium differs from fiscus, as the first contained the public money, the second that of the prince. Yet the two are sometimes used indiscriminately for each other. Calv. Lex. Jur.

Ærium sancti, was an appendage to the former, added on occasion of the growth of the Roman state, when there was not room enough for lodging all the public monies, and the public acts, which were deposited with it.

It was called sancti, because placed in an inner and safer part of the temple; or because in it was lodged the ærium viceminarium, or twentieth, which was kept as a fund or reserve, for extreme necessity of the state. On which account it was also called ærium viceminarium.

Ærarium Itibile, or of Iuno Lucretia, was erected by Servius Tullius, sixth king of the Romans, and commanded money paid in by parents for the birth of each child. The ærumuum Veneris, called Libitine, was for the custody of money paid into it for those who died; and the æriumium juravit, for the money deposited on account of those who arrived at the age of manhood. By these means he was able to ascertain the population and wealth of the country. Dion. Hal. lib. iv. tom. i. p. 272. Ed. Oxon.

Ærarium privatum, or the private pufhe, contained the money and effects which the prince was master of before his accesion to the empire. This was under the care of the consulæ rerum privatarum.—We meet also with other lesser treasuries, æraria minora, in the provinces.

ÆRARIUM Eclesiasticum, the treasury or bank of the church, was formed in the first century of the Christian æra, of free gifts, which were collected and preferred in churches, partly for the purpose of defraying the expense of divine service, and partly to relieve the poor. Such capitals, which were considered as ecclesiastical funds, were by Kudensius, (Hymn. ii. in honorem Laurentii) in the beginning of the fifth century, called montes annus, and ærea nunmis. Tertullian (Apolog. c. 39. oper. p. 35. Ed. Rigaltii.) calls them deposita pietae; and hence were formed the montes pietae of later times. See Mounts of Pity.

ÆRARIUS, in Antiquity, an officer appointed by Alexander Severus, for the disbursement of the money given in largesse to the soldiery, or people. Plut. Lex. Ant.

Ærarius was also used for a person whose common name was struck out by the censors from the album, or list of his century, and was only considered as a citizen so far as to make him subject to pay taxes, æra, without being entitled to any privileges, or advantages, from the common-wealth.

Hence the phrases, ærarium facere, inter æriarios referre, æriarii eximiae, &c.—Not only plebeians, to whom some had restricted it, but also knights and senators, were subject to this kind of degradation.

The ærarii were incapable of making a will, of inheriting, of voting in assemblies, of enjoying any post of honour or profit; in effect, were only subject to the burdens, without the benefits of society; yet they retained their freedom, and were not reduced to the condition of slaves. To be made an ærarius was a punishment inflicted for some offence, and reputed one degree more severe than to be expelled a tribe, tribu moveri. Concerning the precise meaning of these terms and the penalties denoted by them, which have been differently understood by critics, see a note to c. xvii. l. 24. Livy, tom. iii. p. 859. Ed. Drakenb.

Ærarius is also used for a person employed in coining, or working brass.

These are sometimes called æriarii favity, at other times æriarii diffimulati, from faver, the former answering to what we now call copper-smiths, the latter to founders. Ærarius is also applied to a soldier who receives pay.

ÆRATA aqua. See Ziment water.

ÆRATED water. See Pyxmont water.

ÆRATION of foils, in Agriculture, denotes the impregnation of them with air, by ploughing, harrowing, and other means of pulverization, which serve to release the air in the interfices of the soils, and to form various kinds of new combinations.

ÆRDING, or Erding, in Geography, a small town of Lower Bavaria, seven leagues south of Landshut, on the river Semp, in a district which produces the belt grain of that country. It was set on fire by the Swedes in 1632, and in 1648 reduced by them to ashes.

ÆREA, in Ancient Geography, a town of Thrace upon the Propontis, south of a small gulf, and north-west of Perinthus. It is also a surname of Diana, taken from a mountain of Argolis, where she was worshipped.
AR Ebefus, or Hierapolis, in Roman Antiquity, are terms found in inscriptions, which denote that the charges of erecting a tomb or monument were defrayed either by the friends of the deceased or by the people.

After draught, a phrase applied to soldiers, who were punished by being deprived of their pay.

AEROLUS, answering to the Greek ΙΕΡΟΥΛΟΣ, was a weight according to Diodorus and Strabo equal to 83, and according to others equal to 84 of the obols, which was 0.7 grains.

ALERIA, in Ancient Geography, a town in that part of Gallia Narbonensis, which was inhabited by the Cavires. It was so called, says Strabo (I. p. 83.), because it was situated on an eminence. M. d'Anville places it Fourth part of Valtio, and north-call of Carpentor acte. This name was also given to one of the islands of Thrace, called Thasos. Thasos, and also Egypt, were anciently called Aeria.

The names of these islands are given by Helychus to Ethiopia.

AERIAL, something that consists of, or has relation to, air. The Efeni, the most refined and rational sect among the Jews, held, that the human soul consisted of an aerial substance; and the Rofecrancians, and other visionaries, filled the atmosphere with aerial inhabitants.

Aerial perspective is that which represents bodies weakened and diminished in proportion to their distance from the eye, and which judicious artists practice by diffusing a kind of thin vapour over them, that deceives the eye agreeably. Aerial perspective chiefly respects the colours of objects, whose force and lustre it takes off more or less, to make them appear as if more or less remote. It is founded on this, that the longer column of air an object is seen through, the more feebly do the visual rays emitted from it affect the eye. Objects seen in a camera obscura feebly exhibit this effect.

Aerial tribute, in Antiquity, was an annual gift of 120 thousand pounds, which the emperor Jullian accepted from his prætorian prefect; and the means of payment were abandoned to the disfavour of that powerful magistrate.

AERIANS, in Ecclesiastical History, a religious sect, denominated from Agerius, an Armenian præfect of the fourth century. The Arians had much the same sentiments in respect of the Trinity as the Arians: beside which, they condemned prayers and offerings for the dead, flated falis and feasts, the celebration of Easter, and other rites of the same nature, in which the multitude think the life and soul of religion to consist; yet they considered as Jewish ordinances, and they conceived that to observe Easter was to give heed to Jewish fables (Titus, i. 14. 1 Tim. i. 4.). Though they sometimes fasted on the fourth day of the week, as others did, it was not from a regard to any religious obligation, but merely of their own free will. What Epiphanius says of their chafing to fast on the Lord's day must therefore be a calumny. They also hold, that there is no difference between priests and bishops, but that the priesthood and episcopate are absolutely one and the same order, or dignity: an opinion, says Mosheim, which was agreeable to many good Christians, who were no longer able to bear the tyranny and arrogance of the bishops of that century, and which has been since frequently affected by many modern divines and others. Agerius built his doctrine chiefly on some passages in St. Paul's writings; and among others, on that in 1 Tim. iv. 14, where the apostle exhorts Timothy not to neglect "the gift he had received by the laying on of the hands of the presbytery." Here, observes Agerius, is no mention of bishops; but Timothy evidently received his ordination from the presbyters or priests. Epiphanius zealously maintains the superiority of bishops against the Arians. The word presbytery, used by St. Paul, he observes, includes both bishops and priests; the whole senate, or assembly, of the ecclesiastics of the place. Arians and his followers, whose great purpose seems to have been that of reducing Christianity to its primitive simplicity, met with great difficulties. They were excluded from churches, and cities, and villages; and being obliged to wander abroad, they suffered great hardships. Being thus generally and violently opposed, they could not increase to any great number, and in time they were reduced to nothing. Tillemont considers them as Calvinists; and it is certain, that their ideas of church government were formed very much upon the Presbyterian plan. Mohl. Eccl. Hist. vol. i. 387. Lardner's Works, vol. iv. p. 306, &c.

AERICA, or Erieka, in Ethnology, a name given by Gaza and others to the common heron.

AERIUSA, the ancient name for the sky-coloured Jasper.

AERITES, in Botany, a name given to Anacallis. AERENEN, Aegaeum, in Geography, a large walled town of the Valais in Switzerland, which is the court town of the tithing, and which has a council-house where its meetings are held. With this town is incorporated another small place on the Deutch-hill, otherwise called Mons Dei, at the foot of which hill is a lofty stone bridge over the Rhone. N. lat. 46° 15', E. long. 8°.

AERF, a small river of Britain, rising in mount Cilieron, and discharging itself into Aeopus.

AEROGRAHY, from αερ, air, and γραφειν, I describe, a description of the air, of atmosphere, its limits, dimensions, properties, &c.

This amounts to much the same with aerology, unless we suppose the latter to enter into the rational, and the former to confine itself to a description of the more obvious affections thereof.

AEROGRAHIS, from αερ, and γραφομαι, I describe; the doctrine or science of the air, and its phenomena, its properties, good and bad qualities, &c. See Air.

AEROGRAHY, called also the aerology, makes a part of the regimen of health, or the branch of medicine called by some diafopknys, or the non-naturals, which treats of air, its properties and use in the animal economy, and its efficacy in preserving and restoring health. See Air.

AERONANCY, Aeromancy, compounded of αερ, air, and μαντεια, divination, an ancient species of divination performed by means of the air, and its phenomena. Aeromancy included the business of augury, and auguria; the rules of prediction from uncommon winds, storms, showers, and other prodigies. Modern authors speak of a more rational aeromancy, meaning by it the art of foretelling the changes and variations in the air and weather, winds, storms, and the like.

Morhof advances considerations for reducing aeromancy to a certainty, by means of a regular series of meteorological observations. But though many such have been instituted with great care in many parts, this art has hitherto made a very small progress. Of this kind is Huxham's book De Aere.

Barometers, thermometers, hygrometers, and anemometers, are of considerable use in this kind of aeromancy.

Mizoldus has published a body of rules for foretelling storms, &c. drawn partly from vulgar observations, and the
the experience of mariners, partly from astrological considerations; under the title of AEROMANIA.

AEROMELI, a name given to honey, and also to
Manna. See Dro omell.

AEROMETRY, Aerometria, compound of aëry, and μετρητος, to measure, the art of measuring the air, its powers, and properties; and including the laws of the motion, gravitation, pressure, elasticity, refraction, condensation, &c. of the atmospheric fluid.

The word aerometry is but little used; in lieu hereof, we commonly call this branch of philosophy, Pneumatics.

C. Wolfius, professor of mathematics at Hall, having reduced many of the affections of this fluid to geometrical demonstration, first published Elements of Aerometry, at Leipzig, 1759, in high Dutch, and afterwards more largely in Latin, which have been twice inserted in his Curious Mathematics, in eight volumes ato.

AERONAUTICA, from αëri, and ναυς, ship, the art of sailing a vessel through the air, or atmosphere, sustained as a ship in the sea.

AEROPHOBIA, formed of αëri, and φοβει, fear, a term that has been sometimes used for the dread of fresh air. Dr. Franklin says, that he has been sometimes seized with this aerophobia, considering fresh air as an enemy, and excluding it from the rooms which he has occupied. But experience convinced him of its error, and taught him to regard fresh air as eminently conducive to health. Any air, he says, is preferable to that of a close chamber, which has been again and again respired without any change. The fame fagacious philosopher has occasionally rallied those valutudinarians, who, wrapping themselves in close garments, hurry from the noxious air of a close chamber with as much of it as they can carry with them as a cloak of carriage, from which the external air is carefully excluded, and thus proceed to take the air for the benefit of their health.

AEROPHYLACEAE, in Natural History, denote subterraneous receptacles of air or wind.

The word is compounded of αëri, air, and φυλλον, leaf, denoting,—in which sense aerophyleaceae stands contradistinguished from hydrophyllaceae, pyrophyllaceae, &c.

Kircher speaks much of aerophylaec, or huge caverns, replete with air, disposed under ground, from whence, through numerous occult passages, that element is conveyed either to subterraneous receptacles of water, which are hereby raised into springs or rivers, or into the funds of subterraneous fire, which are thus fed and kept alive for the reparation of metals, minerals, and the like.

ÆROPOS, in Entomology, a species of Papilio, having brown wings marked with a yellow band and a single ocellus at the base of the primores. It is found in India and South America.

ÆROPOS, in Ancient Geography, a mountain of Macedo-
nia.

ÆROSIS, among the Ancient Physicians, denotes the act whereby the blood is attenuated and converted into an aura for the support of the vital spirits, and the maintenance of the flame of life.

ÆROSTATICA, from αëri, and στηνος, a vessel, is used by some authors for the science called by others AEROMETRY. It is properly the doctrine of the weight, pressure, and balance of the air and atmosphere.

ÆROSTATION, formed of αëri, and στηνος, of στης, I weigh, the science of weights, in its primary and proper sense, denotes the science of weights, suspended in the air; but in the modern application of the term, it signifies the art of navigation through the air, both in the principles and the practice of it. Hence also the machines, which are employed for this purpose, are called aerostats, or aerostatic machines; and, on account of their round figure, air-balloons. The aerostat, formed of αëri and στηνος, is the person who navigates through the air by means of such machines.

AEROSTATION, principles of. The fundamental principles of this art have been long and generally known; although the application of them to practice seems to be altogether a modern discovery. They are particularly illustrated in this Dictionary under the articles Weight of Air, Inflammability of Air, and Specific Gravity.

It will be sufficient, therefore, to observe in this place, that any body, which is specically, or bulk for bulk, lighter than the atmospheric air accompanying the earth, will be buoyed up by it, and ascend; but as the density of the atmosphere decreases, on account of the diminished pressure of the superincumbent air, and the elastic property which it possesses, at different elevations above the earth, this body can rise only to a height in which the surrounding air will be of the same specific gravity with itself. In this situation it will either float, or be driven in the direction of the wind or current of air, to which it is exposed. An air-balloon is a body of this kind, the whole mass of which, including its covering and contents, and the several weights annexed to it, is of less specific gravity than that of the air in which it rises.

Heat is well known to rarefy and expand, and consequently to lessen the specific gravity of the air to which it is applied; and the diminution of its weight is proportional to the heat. To the observations that occur under Rarificity of Air to this purpose, we shall here add, that one degree of heat, according to the scale of Fahrenheit's thermometer, seems to expand the air about one four hundredth part; and about 400, or rather 455, degrees of heat, will just double the bulk of a quantity of air. If, therefore, the air included in any kind of covering be heated, and consequently dilated, to such a degree, as that the excess of the weight of an equal bulk of common air above the weight of the heated air, is greater than the weight of the covering and its appendages, this whole mass will ascend in the atmosphere, till, by the cooling and condensation of the included air, or the diminished density of the surrounding air, it becomes of the same specific gravity with the air in which it floats; and without renewed heat, it will gradually descend.

If, instead of heating common air included in any covering, and thus diminishing its weight, the covering be filled with an elastic fluid, lighter than atmospheric air; so that the excess of the weight of an equal bulk of the latter above that of the inclosed elastic fluid be greater than the weight of the covering and its appendages, the whole mass will in this case ascend in the atmosphere, and continue to rise till it attains a height at which the surrounding air is of the same specific gravity with itself. Inflammable air is a fluid of this kind. For the knowledge of many of its properties, we are indebted to Mr. Henry Cavendish; who discovered, that if common air is eight hundred times lighter than water, inflammable air is seven times lighter than common air; but if common air is eight hundred and fifty times lighter than water, then inflammable air is 10,8 times lighter than common air. See Phil. Trans. vol. lii. art. 19. and Inflammable Air or Hydrogen.

The construction of air-balloons depends upon the principles above stated; and they are of two kinds, as one or the other of the preceding methods of preparing them is adopted.

AEROSTATION, History of. In the various schemes that
have been proposed for navigating through the air, some have had recourse to artificial wings; which, being con-
structed likethose of birds, and annexed to the human
body, might bear it up, and by their motion, produced
either by mechanical springs, or muscular exertion, effect
its progress in any direction at pleasure. This is one of
the methods of artificial flying suggested by bishop Wilkins, in
the seventh chapter of his De Deo, or Treatise on Mecha-
nical Motions; but the success of it is doubtful, and ex-
periments made in this way have been few and unsatisfactory.
Borelli (De Motu Animalium, cap. 22. prop. 193 and 204.
p. 196 and 208, ed. 1713), having compared the power of
the muscles which act on the wings of a bird with that of
the muscles of the breast and arms of a man, finds the latter
altogether insufficient to produce, by means of any wings,
that motion against the air, which is necessary to raise a man
in the atmosphere.

Others, with greater probability of success, have pro-
posed to attach the human body to some mafs, which being
lighter than air, might raise itself and the annexed weight
into the regions of that element. This method has actually
succeeded; though Borelli (ubi supra), as well as Leibnitz,
denied the possibility of a man’s flying by any of the means
with which they were acquainted.

It is needless to recite any of the accounts relating to
this subject, which have been transmitted to us by the
ancients. Most, if not all of them, are fabulous. An
ingenious writer, in a work cited at the close of this article,
have given us the refult of his enquiries into the records of
antiquity; and he informs us, that the earliest account of
any thing relating to flying, which has the appearance of
authenticity, is that of the wooden pigeon, constructed by
Archytas in the fourth century, before the Christian era,
and of which Aulus Gellius (Nocctes Atticx, lib. x. cap. 12.)
relates, that it could fly by means of mechanical powers,
and by an inclosed spirit. This spirit, or aura, our author
apprehends, was nothing more than a sort of animation,
which the machine appeared to be possessed of, in confec-
quence of its extraordinary mechanism. Aeroliation was,
therefore, a subject either altogether unknown, or very
imperfectly understood among the ancients; unless we sup-
pole it to be one of those arts, of which the records are
lost. In later times, the schemes which have been proposed
by ingenious men seem to have terminated in speculation.
The reader will find a brief account of some of them under
the articles Atmosphere and Artificial Flying, and a
more comprehensive history of the projects and achievements
of different persons, in the work cited below. Upon
the whole it appears, that the art of traversing the air is an
invention of our own time; and the whole history of it is
comprehended within a very short period.

Soon after Mr. Cavendish’s discovery of the specific gra-
vity of inflammable air, it occurred to the ingenious Dr.
Black of Edinburgh, that if a bladder, sufficiently light
and thin, were filled with this air, it would form a mass
lighter than the same bulk of atmospheric air, and rise
in it. This thought was suggested in his lectures in 1767
or 1768; and he proposed, by means of the allatocos of a
calf, to try the experiment. Other employments, how-
ever, prevented the execution of his design. The possi-
bility of constructing a vesel, which, when filled with inflamm-
able air, would ascend in the atmosphere, had occurred
also to Mr. Cavalli about the same time; and to him
belongs the honour of having first made experiments on
this subject, in the beginning of the year 1762, of which
an account was read to the Royal Society, on the 20th of
June in that year. He tried bladders; but the thickness
of these, however scraped and cleaned, were too heavy. In
using China paper, he found that the inflammable air passed
through its pores, like water through a sieve; and having
failed of success by blowing this air into a thick solution of
gum, thick varnishes, and oil paint, he was under a neces-
Sibility of being satisfied with soap-balls, which, being inflated
with inflammable air, by dipping the end of a small glass
tube, connected with a bladder containing the air, into a
thick solution of soap, and gently compressing the blad-
er, ascended rapidly in the atmosphere; and these were
the first sort of inflammable air-balloons that were ever
made.

For balloons formed on a larger scale, and on the prin-
ciple of rarefied air, we must direct our attention to France;
where the two brothers, Stephen and Joseph Mongolfer,
paper-manufacturers at Annonay, about 36 miles from
Lyons, distinguished themselves by exhibiting the first
of those aeroliotic machines, which have since excited so much
attention and astonishment. The first idea of such a ma-
icine was suggested to them by the natural action of the
smoke and clouds in the atmosphere; and the first ex-
periment was made at Avignon by Stephen, the elder of
the two brothers, towards the middle of November, 1782.
Having prepared a bag of fine silk, in the shape of a paral-
lelepipedon, and in capacity about forty cubic feet, he
applied to its aperture burning paper, which rarefied the
air, and thus formed a kind of cloud in the bag; and when
it became sufficiently expanded, it ascended rapidly to the
circling. Soon afterwards the experiment was repeated by
the two brothers at Annonay, in the open air, when the
machine ascended to the height of about seventy feet.
Encouraged by their success, they constructed a machine,
the capacity of which was about 650 cubic feet; which,
in the experiment, broke the ropes that confined it, and
after ascending rapidly to the height of about 600 feet,
fell on the adjoining ground. With another machine, 35
feet in diameter, they repeated the experiment in April,
1783; when breaking loose from its confinement, it rote to
the height of above 1000 feet, and being carried by the
wind, it fell at the distance of about three quarters of a
mile from the place where it ascended. The capacity of
this machine was equal to about 23430 cubic feet; and
when inflated, it measured 117 English feet in circumfe-
rence. The covering of it was formed of linen, lined with
paper; its shape was nearly sphericall; and its aperture
was fixed to a wooden frame about 16 feet in surface.
When filled with vapour, which was conjectured to be about half
as heavy as common air, it was capable of lifting up about
490 pounds, besides its own weight, which, together with
that of the wooden frame, was equal to 500 pounds.

With this machine the next experiment was performed at
Annonay, on the 5th of June, 1783, before a great mul-
titude of spectators. The flaccid bag was suspended on a
pole 35 feet high; flraw and chopped wool were burnt
under the opening at the bottom; the vapour, or rather
smoke, soon inflated the bag, so as to distend it in all its
parts, and this immense mass ascended in the air with such
a velocity, that in less than 10 minutes it reached the
height of about 6000 feet. A breeze carried it in an hori-
zontal direction to the distance of 7668 feet; and it then
fell gently on the ground. Mr. Montgolfier attributed the
ascend of the machine, not to the rarefaction of the heated
air, which is the true cause, but to a certain gas or aeriform
fluid, specifically lighter than common air, which was sup-
poped to be diffused from burning sublunates, and which,
has been commonly called Montgolfier's gas, as balloons of
this kind have been denominated Montgolfier.

As soon as the news of this experiment reached Paris,
the philosophers of the city, conceiving that a new fort of
gas, half as heavy as common air, had been discovered
by Mellers. Montgolfier, and knowing that the weight of in-
flammable air was not more than the eighth or tenth part
of the weight of common air, justly concluded that in-
flammable air would answer the purpose of this experiment
better than the gas of Montgolfier, and resolved to make
trial of it. A subscription was opened by M. Faujas de
St. Fond towards defraying the expense of the experiment.
A sufficient sum of money having been soon raised, Mellers,
Roberts were appointed to construct the machine; and M.
Charles, professor of experimental philosophy, to superin-
tend the work. At last mounting many difficulties in
obtaining a sufficient quantity of inflammable air, and
finding a flableness light enough for the covering, they at length
constructed a globe of luteating, which was rendered imper-
vious to the inflowed air by a varnish of elastic gum or
cautchouc, dissolved in some kind of spirit or esential
oil. The diameter of this globe, which from its shape was
denominated a balloon, was about thirteen feet, and it had
only one aperture, like a bladder, to which a stop-cock was
adapted; its height, when empty, together with that of the
stop-cock, was 25 pounds. On the 23d of August, 1783, they began to fill the globe with inflammable air;
but this, being their first attempt, was attended with many
hindrances and disappointments. At last, however, it was
prepared for exhibition; and on the 27th it was carried to
the Champ de Mars, where, being diffcrnged from the
hills that held it down, it rose before a prodigious con-
course of people, in less than two minutes, to the height of
3132 feet. It then entered a cloud, but soon appeared
again; and at last it was lost among other clouds. This
balloon, after having floated about three quarters of an hour,
fell in a field about fifteen miles distant from the place of
ascend; where, as we may naturally imagine, it occasioned
much astonishment to the peasants. Its fall was owing to a
rent, occasioned by the expansion of the inflammable air in
that rare part of the atmosphere to which it ascended.
When the balloon went up, its specific gravity was 35
pounds less than that of common air.

In conquequence of this brilliant experiment, many bal-
loons were made on a small scale; gold-beaters skin was used
for the covering; and their size was from 9 to 18 inches
in diameter.

Mr. Montgolfier repeated an experiment with a machine of
his construction before the commissaries of the Academy
of Sciences on the 11th and 12th of September. This
machine was 74 feet high, and about 43 feet in diameter.
When diffcrnged, it appeared spherical. It was made of
canvas, covered with paper, both within and without; and
it weighed 1000 pounds.

The operation of filling it with rarefied air, produced by
means of the combustion of 50 pounds of dry straw, and
12 pounds of chopped wool, was performed in about nine
minutes; and its force of ascension, when inflated, was so
great that it raised eight men who held it some feet from the
ground. This machine was so much damaged by the rain,
that it was found necessary to prepare another for exhibition
before the king and royal family on the 16th. This new
machine consisted of cloth, made of linen and cotton thread,
and was painted with water-colours both within and without.
Its height was near 60 feet, and its diameter about
43 feet. Having made the necessary preparations for in-
flating it, the operation was begun about one o'clock on
the 19th of September, before the king and queen, the
court, and all the Parisians who could procure a conveyance
to Versailles. In eleven minutes it was sufficiently dilated
and the ropes being cut, it ascended, bearing up with it
a wicker cage, in which were a sheep, a cock, and a
duck. Its power of ascension, or the weight by which it
was lighter than an equal bulk of common air, allowing for
the cage and animals, was 606 pounds.

This balloon rose to the height of about 1440 feet; and
being driven by the wind, it descended gradually and fell
gently into a wood, at the distance of 10,200 feet from
Versailles. After remaining in the atmosphere eight mi-
nutes, the animals in the cage were safely landed. The
sheep was found feeding; the cock had received some hurt
on one of his wings, probably from a kick of the sheep;
the duck was perfectly well.

The success of this experiment induced M. Pilatre de
Rozier, with a philosophic intrepidity which will be re-
corded with applause in the history of aerostation, to offer
himself as the first adventurer in this aerial navigation.
Mr. Montgolfier constructed a new machine for this purpose in
a garden in the Faubourg St. Antoine. Its shape was
oval; its diameter being about 48 feet, and its height about
74 feet. To the aperture at the bottom was annexed a
wicker gallery about three feet broad, with a ballustrade
about three feet high. From the middle of the aperture
was unfurled chains, which came down from the sides of
the machine, an iron grate or brazier, in which a fire
was lighted for inflating the machine; and port-holes were
opened in the gallery, towards the aperture, through which
any person, who might venture to ascend, might feed the
fire on the grate with fuel, and regulate the dilation of the
inflated air of the machine at pleasure. The weight of this
aerostat was upwards of 1600 pounds. On the 15th of
October, the fire being lighted and the machine inflated,
M. P. de Rozier placed himself in the gallery, and ascended,
to the astonishment of a multitude of spectators, to the
height of 84 feet from the ground, and there kept the
machine about during 14' 25', by repeatedly throwing straw
and wool upon the fire; the machine then descended gra-
dually and gently, through a medium of increasing density,
to the ground; and the intrepid adventurer assured the
spectators that he had not experienced the least incon-
venience in this aerial excursion. This experiment was re-
peated on the 17th, and on the 19th, when M. P. de
Rozier, in his deft, and in order to avoid danger by
ascending, evinced to a multitude of observers, that the
machine may be made to ascend and descend at the pleasure
of the aviator, by merely increasing or diminishing the fire
in the grate. The balloon having been hauled down, M.
Girard de Villette placed himself in the gallery opposite to
M. Rozier; and being suffered to ascend, it hovered for
about nine minutes over Paris in the sight of all its in-
habitants at the height of about 330 feet. In another ex-
periment the marquis of Arlandes ascended with M. Rozier
much in the same manner. In consequence of the report of
the preceding experiment, signed by the commissaries of the
Academy of Sciences, it was ordered that the annual prize
of 600 livres should be given to Mellers. Montgolfier for the
year 1783. In the experiments above related the machine
was secured by ropes; but they were soon succeeded by un-
confined aerial navigation. Accordingly the balloon of
74 feet in height, above mentioned, was removed to La
Muette, a royal palace in the Bois de Boulogne; and all
things being ready, on the 21st of November M. P. de
Rozier
Ricard and the marquis d'Arlandes took their respective places in the gallery, and at 34 minutes after one the machine was absolutely abandoned to the element, and ascended softly and majestically in the atmosphere. The aeronauts, having reached the height of about 280 feet, waved their hats to the astonished multitude; but they soon rose too high to be distinguished, and are thought to have soared to an elevation of above 3000 feet. They were at first driven by a north-west wind horizontally over the river Seine and over Paris, taking care to keep the fleeces and high buildings by increasing the fire; and in rising met with a current of air, which carried them southward. Having passed the Boulevard, and deflating from the fire with feel, they descended very gently in a field beyond the new Boulevard, about 5000 yards distant from the palace de la Muette. They were in the air about 25 minutes. The weight of the whole apparatus, including that of the two travellers, was between 1600 and 1700 pounds.

Notwithstanding the rapid progress of aeronautics in France, we have no authentic account of any aerostatic experiments performed in other countries till about the close of the year 1783. The first experiment of this kind, publicly exhibited in our own country, was performed in London on the 27th of November, by count Zanheccari, an ingenious Italian, with a balloon of oil silk, 10 feet in diameter, and weighing 11 pounds. It was gilt, in order to render it more beautiful and more impermeable to the inflammable air. This balloon, three-fourths of which were filled with inflammable air, was launched from the Artillery-ground, in the presence of a vast concourse of spectators, at one o'clock in the afternoon, and at half past three was taken up near Petworth, in Sussex, 48 miles distant from London; so that it travelled at the rate of near 20 miles an hour. Its descent was occasioned by a rent, which must have been the effect of the rarefaction of the inflammable air, when the balloon ascended to the rarer part of the atmosphere.

The Parisian philosophers having concerted and executed the first aerial voyage with a balloon inflated by heated air, determined to attempt a similar voyage with a balloon filled with inflammable air, which seemed to be preferable to dilated air in every respect, the expense attending it excepted. A subscription was opened to defray the charges, which were estimated at about ten thousand livres; and the balloon was constructed by Meffrs. Roberts, of gores of silk, varnished with a solution of cahie gum. Its form was spheroidal, and it measured 27½ feet in diameter. The upper hemisphere was covered by a net, which was fastened to the hoop encircling its middle, and called its equator. To this equator was suspended by ropes a car or boat, covered with painted linen and beautifully ornamented, which swung a few feet below the balloon. In order to prevent the burning of the machine by the expansion of the inflammable air in a rarefied medium, it was furnished with a valve, which might be opened by means of a string annexed to it, for the discharge of part of the internal air without admitting the external to enter. To this balloon was likewise annexed a long pipe through which it was filled. The apparatus for filling it consisted of several casks placed round a large tub of water, each of which had a long tin tube, terminating under a vessel or funnel, that was inserted into the water of the tub. A tube proceeding from this funnel, communicated with the balloon, which stood just over it. Iron filings and diluted vitriolic acid were put into the casks; and the inflammable air, produced from these materials, passed through the tin tubes, through the water of the tub, and through the funnel of the balloon. The car was ballasted with sand-bags; so that by letting some of the air escape through the valve they might descend, and by discharging some of their ballast ascend. The specific gravity of the inflammable air, with which the balloon was filled, was to that of common air nearly as 1 to 5; and the balloon's power of ascension, when filled for the experiment and when actually ascending, was twenty pounds. The weight of the balloon and of its various appendages was 66½ pounds, and therefore the weight sustained by the inflammable air was 62½ pounds: and if from the weight of the common air displaced, which was found to be 77½ pounds, the former be subtracted, there will remain 11½ pounds for the real weight of the inflammable air contained in the balloon.

The 1st of December was fixed upon for the display of this grand experiment; and every precaution was made for conducting it with advantage. The garden of the Thulleries was the scene of operation; and it was crowded and encompassed with an innumerable multitude of observers. Signals were given by the firing of cannon, waving of pendants, &c. A small Montgolfier was launched for showing the direction of the wind, and for the amusement of the people, previously to the general display. At three quarters after one o'clock, M. Charles and one of the Roberts, having seated themselves in the boat attached to the balloon, and furnished with proper instruments, provisions, and clothing, left the ground, and ascended with a moderately accelerated velocity to the height of about 600 yards; the surrounding multitude standing silent with fear and amazement. At this height the aerial navigators made signals of their safety. When they went up, the thermometer, according to Fahrenheit's scale, stood at 59°; and the barometer at 30, 18 inches. At the height to which they ascended the barometer stood at 27 inches, whence they deduced their elevation to be nearly 600 yards. During the rest of the voyage the quicksilver in the barometer was generally between 27 and 27 6½ inches, rising and falling as part of the ballast was thrown out or some of the inflammable air escaped from the balloon. The thermometer generally stood between 53 and 57°. Soon after their ascent, they remained stationary for some time; they then moved horizontally in the direction of N. N. W. and having crossed the Seine, and passed over several towns and villages, to the great astonishment of the inhabitants, they descended in a field about 27 miles distant from Paris at a quarter past three o'clock; so that they had travelled at the rate of about fifteen miles an hour, without feeling the least inconvenience. The balloon still containing a considerable quantity of inflammable air, M. Charles re-ascented alone. In ten minutes he thought himself at the elevation of about 1500 toises. The globe, being now in a rarefied medium, swelled considerably; but when some of the inflammable air was discharged, it rose full higher. The barometer, which at his departure stood at 28 inches four lines, had now fallen to 18 inches ten lines. The thermometer, from about 45° of Fahrenheit's scale, had sunk to 21°. From these data the elevation of the globe was estimated at 1524 toises, or about 31,000 yards. M. de Menou supposed that he ascended to the height of at least 3500 yards. He continued in the air about 33 minutes, and by occasionally pulling the string of the upper valve, and thus letting out the gas, he descended about three miles from the place of his ascent. All the inconvenience he experienced in his elevation was a dry sharp cold, with a pain in one of his ears and a part of his face, which he ascribed to the dilatation of the internal air. The small balloon, launched by M. Montgolfier, was found to have moved in a direction opposite to that of the aeronauts; whence it is inferred, that
that there were two currents of air at different heights above the earth.

In the month of December of this year, several experiments with balloons were made at Philadelphia, in America, by Messrs. Rittenhouse and Hopkins. They contrived to connect several small balloons together, and thus they enabled a man to ascend to the height of 100 feet, and to float to a considerable distance. But fear induced him to cut open the balloons, and thus to descend. Small balloons were at this time very common, both in France and England.

In January 1784, Mr. J. Montgolfier, accompanied by six other persons, ascended at Lyons, with a large rarefied air-balloon, 131 feet high, and 104 feet diameter, to the height of about 1000 yards. This was the largest machine that had hitherto been made. It was formed of a double covering of linen, with three layers of paper between, and strengthened with strings and ribbons. It contained about 540,000 cubic feet of igneous gas; and its weight, including the gallery and passengers, was 1600 pounds. After remaining in the air about fifteen minutes, a rent in the machine occasioned its fall: and when it came within about 600 feet of the ground, it descended with a velocity which very much alarmed the spectators; but they all landed without injury.

On the 22d of February an inflammable air-balloon about five feet in diameter, was launched from Sandwich in Kent, which, travelling at the rate of about 50 miles an hour, crossed the English Channel, and descended in a field about nine miles from Lille, in French Flanders.

The first person in Italy, who was at the expense of constructing an aerostatic machine for making an aerial voyage, was the chevalier Paul Andreani of Milan; his machine was spherical, about 65 feet in diameter, and formed upon the principle of those of Montgolfier. The chevalier, and two brothers of the name of Gerli, who had assisted in the construction of it, ascended, on the 25th of February, to the height of about 1200 feet; and they remained in the atmosphere about twenty minutes.

From the calculations made respecting the capacity of this machine, it appears, that the included air was not rarefied above one-third, or that the included warm air was not 25 feet than two-thirds of that which would have filled the machine, when of the same temperature with the external air; and this is the utmost degree of rarefaction that can be reasonably expected in balloons of this kind.

The next aerial voyage was performed by M. Jean Pierre Blanchard, who had for several years been employed, though without success, in attempts of flying by mechanical contrivances. This voyage was performed in March 1784, with a balloon 25 feet in diameter, to which a boat was suspended, with two wings a d a rudder annexed to the boat, and a large umbrella or parachute spread horizontally between the boat and the balloon, designed to check the fall provided that the balloon should burst. The greatest altitude to which Mr. Blanchard ascended from the Champ de Mars at Paris, is supposed to be 9591 feet; and it appears from his own acknowledgment that the wings and rudder of his boat had little, if any, power in guiding the balloon from the direction of the wind. He was in the air an hour and a quarter, and descended at Billancourt, near Seve, after having experienced heat, cold, hunger, and an excessive drowsiness.

Aerostatic experiments and aerial voyages became so frequent in the course of the year 1784, that the limits of this article will not allow our particularly recording them. We shall, therefore, merely mention those which were attended with any peculiar circumstances. Mesrs. de Morveau and Bertrand ascended from Dijon in April, to the height of about 15000 feet, with an inflammable air balloon; the thermometer was observed to fall at 25 degrees. They were in the air during one hour and 25 minutes, and went to the distance of about 18 miles. Their ears were affected in the manner described by Mr. Charles. The clouds floated beneath them, and excluded them from the earth: and they jointly repeated the motto inscribed on their aerostat:—"Surge nonus gallus ad aethera."

In May, four ladies and two gentlemen ascended with a Montgolfier at Paris above the highest buildings; the machine was confined by ropes. It was 74 feet high, and 72 in diameter.

In a second voyage performed by Mr. Blanchard from Rouen, in May, it was observed, that his wings and ears could not carry him in any other direction than that of the wind. The mercury in the barometer descended as low as 20,57 inches; but on the earth, before he ascended, it stood at 37,16 inches.

At Lyons, on the 4th of June, M. Fleuriat and Madame Thible, the first lady that made an aerial voyage, ascended in the presence of Gustavus king of Sweden to the height of 5500 feet, and floated to the distance of about two miles in 45 minutes.

A balloon, 32 inches in diameter, filled with inflammable air, extracted from zinc, was raised at Nantes on the 14th of June with two persons, viz. M. Couillard de Maffi and M. Mouchet; which ascended to a great height, and in 58 minutes travelled to the distance of 27 miles.

On the 23d of June a large aerostat, on the principle of rarefied air, 91 1/2 feet high and 79 feet in diameter, was elevated by Montgolfier at Verfailles, in the presence of the royal family and the king of Sweden. M. Pilatre de Rozier and M. Pronit, ascended with it, and continued for 28 minutes at the height of 11732 feet and observed the clouds below them, that reflected to the region which they occupied the rays of the sun; the temperature of the air being 5° below the freezing point; and in three quarters of an hour they travelled to the distance of 36 miles. In consequence of this experiment the king granted to M. Rozier a pension of 2000 livres.

On the 15th of July the duke of Chartres, the two brothers Roberts, and another person, ascended with an inflammable air-balloon of an oblong form, 55 feet long and 24 feet in diameter, from the Park of St. Cloud; the machine remained in the atmosphere about 45 minutes. This machine contained an interior small balloon, filled with common air, by which means it was proposed to make it ascend or descend without any loss of inflammable air or ballast. The boat was furnished with a helm and oars, intended for guiding it. At the place of departure the barometer stood at 30, 12 inches. Three minutes after ascending, the balloon was lost in the clouds and involved in a dense vapour. An agitation of the air, resembling a whirlwind, alarmed the aerial voyagers, and occasioned several flocks, which prevented their using any of the instruments and contrivances prepared for the direction of the balloon. Other circumstances occurred to increase their danger; and when the mercury, standing in the barometer at 74, 36 inches, indicated their height to be about 5100 feet, they found it necessary to make holes in the bottom for discharging the inflammable air; and having made a rent of between seven and eight feet, they descended very rapidly, and at last came safely to the ground.

On the 18th of July M. Blanchard, accompanied by a Mr.
Mr. Boby, made his third aerial voyage with the same inflammable air-balloon, at Rouen; and ascended so high as to make the mercury in the barometer fall 4, 76 inches, and the thermometer 30°. In two hours and a quarter they floated 45 miles, or at the rate of twenty miles an hour. In this voyage Mr. Blanchard conceived, that by agitating the wings of his boat he could not only ascend and descend, but move sideways against the wind; but frequent trials do not seem to have established this fact. The machine retained its air during the night, and several ladies annulled themselves the next day, by ascending with it to the height of 80 feet, the length of the ropes to which it was attached.

In the course of this summer two persons, one in Spain, and another in America, were in danger of losing their lives by ascending with a heated air-machine. The former was scorched by the machine’s taking fire, and so hurt by his fall, that his life was long depauper of; and the latter was wafted against the wall of a house, and so entangled, that he fell from the height of about twenty feet, and the machine took fire, and was consumed.

In the month of August the Abbe Carnus, professor of philosophy, and M. Louchet, professor of belles lettres, ascended at Rodez, a town of Guienne in France, with an aerostatic machine of 57 feet in diameter. The air was calm, and the machine did not travel farther than about 14,000 yards in 46 minutes; and the height to which it ascended was 3520 yards above the level of the town. The thermometer was 24 degrees lower than it was at the earth when they ascended. On examining the air in one of two bottles, which they had filled at their highest elevation, they found that it contained a quarter less air than if it had been filled at about the level of the sea; and the air, tried by the test of nitrous air, was found more pure than that near the surface of the earth.

The first aerial voyage in England was performed in London, on the 15th of September, by Vincent Lunardi, a native of Italy. His balloon was made of oiled silk, painted in alternate stripes of blue and red. Its diameter was 33 feet. From a net which went over about two-thirds of the balloon, defended 45 cords to a hoop hanging below the balloon, and to which the gallery was attached. The balloon had no valve; and its neck, which terminated in the form of a pear, was the aperture through which the inflammable air was introduced, and through which it might be let out. The air for filling the balloon was produced from zinc by means of diluted vitriolic acid. Mr. Lunardi departed from the Artillery-ground at two o’clock; and with him were a dog, a cat, and a pigeon. After throwing out some sand to clear the houses, he ascended to a great height. The direction of his motion at first was north-west by west, but as the balloon rose higher, it fell into another current of air, which carried it nearly north. About half after three he descended very near the ground, and landed the cat, which was almost dead with cold; then rising, he prosecuted his voyage. He ascribes his descent to the action of an oar; but as he was under the necessity of throwing out ballast in order to re-ascend, his descent was more probably occasioned by the loss of inflammable air. At ten minutes past four he descended on a meadow near Ware in Hertfordshire. The only philosophical instrument which he carried with him was a thermometer, which in the course of his voyage stood as low as 29°, and he observed that the drops of water which collected round the balloon were frozen.

The longest and the most interesting voyage, which was performed about this time, was that of Meissrs. Roberts and M. Collin Hallin, at Paris, on the 19th of September. Their aereal was filled with inflammable air. Its diameter was 27 feet, and its length 404 feet, and it was made to float with its longest part parallel to the horizon, with a boat of nearly 17 feet long attached to a net that went over it as far as its middle. To the boat were attached wings or oars, in the form of an umbrella. At 12 o’clock they ascended with 470 pounds of ballast, and after various manœuvres descended at 40 minutes past six o’clock near Arras, in Artois, having still 200 pounds of their ballast remaining in the boat. Having risen about 1400 feet, they perceived flormy clouds which they endeavoured to avoid; but the current of air was uniform from the height of 600 to 4300 feet. The barometer on the coast of the sea was 29,611 inches, and sunk to 23,944 inches. They found that by working with their oars, they accelerated their course. In the prosecution of their voyage, which was 150 miles, they heard two claps of thunder; and the cold occasioned by the approach of stormy clouds made the thermometer fall from 77° to 59°, and condensed the inflammable air in the balloon, so as to make it defend very low. From some experiments they concluded, that they were able by the use of two oars to deviate from the direction of the wind about 22°. But this experiment requires repetition, in order to ascertain with accuracy the effect here ascribed to oars.

The second aerial voyage in England was performed by Mr. Blanchard and M. Sheldon, professor of anatomy to the Royal Academy, the first Englishman who ascended with an aerostatic machine. This experiment was performed at Chelsea on the 15th of October. The winds used on this occasion seemed to have produced no deviation in the machine’s tracks from the direction of the wind. Mr. Blanchard, having landed his friend about the distance of 14 miles from Chelsea, proceeded alone with different currents; and ascended so high as to experience great difficulty of breathing; a pigeon also, which flew away from the boat, laboured for some time with its wings, in order to sustain itself in the rarefied air, and after wandering for a good while returned and rested on one side of the boat. Mr. Blanchard perceiving the fact before him descended near Runley, about 75 miles from London, having travelled at the rate of nearly 50 miles an hour.

On the 12th of October, Mr. Sadler, of Oxford, made a voyage of 14 miles from that place in 17 minutes, with an inflammable air-balcon of his own contrivance and construction.

Mr. Blanchard’s fifth aerial voyage was performed from London on the 30th of November, in company with Dr. J. Jeffries, a native of America. This voyage was about twenty-one miles. It does not appear that they derived any advantage from their oars in directing the course of the balloon.

On the 4th of January, 1785, Mr. Harper ascended with an inflammable air-balcon from Birmingham; he went to the distance of 50 miles in about an hour and a quarter, and found no inconveniences beside such as might be expected from the changes of wet and cold, and a temporary defaxcts. The thermometer descended from 40° to 28°.

On the 7th of January, Mr. Blanchard, accompanied by Dr. Jeffries, departed with the balloon, which had carried him five times through the air, from Dover-cape towards the French coast. In their passage they were under a necessity of throwing away every thing which they had with them in the boat, and to part even with their clothes, in order to prevent the balloon from falling into the sea; but
as they approached the land, it began to rise; and in two hours they reached the high grounds near Calais, and the balloon rising still higher over the land, they descended safely in the forest of Guiennes. In consequence of this voyage the king of France presented Mr. Blanchard with a gift of 12000 livres, and granted him a portion of 12000 litres a year. A bottle which was thrown out of the boat in the time of their danger, struck the water with such force, that the block was heard at a considerable elevation, and feebly felt on the car and balloon.

On the 19th of January Mr. Crofle ascended at Dublin with an inflammable air balloon to a great height, and rose so rapidly as to be out of sight in $\frac{1}{2}$ minutes. By opening the valve he descended suddenly as he approached very near the sea. On the 25th of March Count Zambeccari and Admiral Sir Edward Vernon ascended at London, and failed to Horfham in Sufex, at the distance of 35 miles, in less than an hour. At the height of about two miles, the barometer having fallen from 30.4 inches to 20.8 inches, an accident hindered them, and obliged them to descend. In their descent they paffed through a dente cloud, which covered them with snow. They observed that the balloon revoluted perpetually round its vertical axis, with such rapidity as to perform each revolution in four or five seconds; they also mention a kind of railing noise, which they heard among the clouds, and that the balloon was greatly agitated in its descent. On the 5th of May, Mr. Sadler and Mr. Windsford ascended at Roudley Hurst; and were driven by a current of air towards the sea. They fortunately descended at the confufion of the Thames and Medway; but the cords of their machine being released, it instantly ascended and floated to a considerable distance, and was taken up by a trading vessel at sea, where it fell. On the 12th of May, Mr. Crofle ascended at Dublin, but soon came down again with a velocity which alarmed the spectators. Upon his decent, Mr. McGuire, a corpulent youth, sprang into the machine, and was carried off by the ascending balloon towards the Channel; he at length fell into the sea, and was taken up by a boat dispatched for his relief, just when his strength was exhausted with swimming, and thus his life was saved.

The fate of M. P. de Rozier, the firft aerial navigator, and of his companion M. Romain, has been much lamented. They ascended at Boulogne on the 15th of June, with an intention of crossing the Channel to England. Their machine conftituted of a spherical balloon 37 feet in diameter, filled with inflammable air; and under this balloon was suspended a small Montgolfier, or fire-balloon, ten feet in diameter. This Montgolfier was designed for rarefying the atmosphere air, and thus diminishing the specific gravity of the whole apparatus. For the first twenty minutes they seemed to pursue the proper course; but the balloon seemed to be much inflated, and the aeronauts appeared anxious to descend. Soon however, when they were at the height of about three quarters of a mile, the whole apparatus was in flames, and the unfortunate adventurers fell to the ground, and were killed on the spot.

On the 15th of July Mr. Crofle ascended at Dublin, with a view of crossing the Channel to England. To a wicker basket of a circular form, which he had inhabited for the boat, he had affixed a number of bladders, for the purpose of rendering his galery buoyant, in case of a defalter at sea. The height to which he ascended at one time was such, that by the intense cold his ink was frozen, and the mercury sunk into the ball of the thermometer. He himself was sick, and he felt a strong imprecation on the tympanum of his ears. At his utmost elevation he thought himself stationary; but on discharging some gas, he descended to a very rough current of air blowing to the north. He then entered a dense cloud, and experienced strong blasts of winds, with thunder and lightning, which brought him with rapidity towards the surface of the water. The water soon entered his ears; the force of the wind plunged him into the ocean; and it was with difficulty that he put on his cork jacket. The bladders which he had prepared were now found of great use. The water, added to his own weight, served as ballast; and the balloon maintaining its poife, answered the purpose of a sail, by means of which, and a snatch-block to his car, he moved before the wind as regularly as a sailing vessel. He was at length overtaken by some vessels that were crowding far after him, and conveyed to Dunkery, with the balloon towed after them. On the 22d of July, Major Money, who ascended at Norwich, was driven out to sea, and after having been blown about for about two hours, he dropped into the water. After much exertion for preferring his life, and when he was almost depriving of relief, he was taken up by a revenue cutter in a state of extreme weakness; having been struggling to keep himself above water for about seven hours. The longest voyage that had been hitherto made was performed by Mr. Blanchard towards the end of August. He ascended at Little, accompanied by the chevalier de L'Epiphan, and traversed a distance of 300 miles before he descended. On this, as well as on other occasions, Mr. Blanchard made trial of a parachute, in the form of a large umbrella, which he contrived for breaking the fall in case of any accident. With this machine he let down a dog, which came to the ground gently, and unhurt.

On the 8th of September Mr. Baldwin ascended from the city of Chester, and performed an aerial voyage of 25 miles in two hours and a quarter. His greatest elevation was about a mile and an half, and he supposes that the velocity of his motion was sometimes at the rate of 30 miles an hour. He has published a circumstantial account of his voyage, described the appearances of the clouds as he paffed through them, and annexed a variety of observations relating to aeronautics, which render his treatise valuable and interesting to those who wish to acquaint themselves with this subject. It would be tedious to recount the aerial expeditions that were performed in various parts of our own country, as well as on the continent, in the whole course of the year 1785; more especially as they have afforded us no experiment or discovery of any peculiar importance. The most persevering aerial navigator has been Mr. Blanchard. In August 1788, he ascended at Brunswick for the thirty-second time. Within two years from the first discovery of this art of navigating the atmosphere, more than forty different persons performed the experiment without any material injury; and it may be justly questioned, says Mr. Cavallo, whether the first forty persons, who tried themselves to the sea in balloons, escaped so safely. The catastrophe that befell Rozier, and the unpleasant circumstances that have happened to some of the aeronauts in our own country, have been owing not so much to the principle of the art, as to want of judgment, or prudent management in the conduct of it.

We shall close this abstract of the history of aeronautics with the observations of a very competent judge on the respective advantages and disadvantages of balloons made with inflammable air, and of those that are raised by means of hot air, to the former of which he gives the preference. The principal comparative advantages of the rarefied air-balloons are, their being filled with little or no expense; their not requiring to be made of so expensive materials; and the com
bubbles necessary to fill then being found almost every where, so that when the provision of fuel is exhausted, the balloon may descend and recruit his fuel, in order to proceed on his voyage. But they must be larger than balloons of the other sort, in order to take up the same weight: and the presence of fire is a constant trouble and a continual danger. Experience has in many instances, environs the dreadful consequences that have attended them. On the other hand, the inflammable air balloon must be made of a substance impermeable to the fluid gas: the gas itself cannot be produced without a considerable expense; and it is not easy to find the material, and apparatus necessary for the production of it in every place. Improvements, however, daily occur in the preparation of the coverings of these balloons, so as to render them nearly impermeable to the inflammable air: and it has been found that an inflammable air-balloon, 30 feet in diameter, may be so made as to sustain two persons and a considerable quantity of baggage in the air for more than 24 hours, when properly managed; and one man might possibly be supported by the same machine for three days.

**AEROSTATION, practice of.** The shape of the balloon is one of the first objects of consideration in the construction of the machine. As a sphere admits the greatest capacity under the least surface, the spherical figure, or that which approaches nearest to it, has been generally preferred. However, since bodies of this form oppose a greater surface to the air, and consequently a greater obstruction to the action of the air or winds than those of some other forms, and therefore cannot be so well guided in a calm, or in a course different from the direction of the wind, it has been proposed to construct balloons of a conical or oblong figure, and to make them proceed with their narrow end forward.

Mr. Hoole, an ingenious writer, who is now publishing a translation of the works of Leeuwenhoek, in his Thoughts on the farther Improvement of Aerostation, suggests the shape of a fish as the most proper: the sharp head, under such a form, will serve to divide the resisting fluid, and open a passage, and the tail will serve as a rudder to steer its course. He also proposes to fix a foot for the traveller in the lower part of the body of the fish, or in the centre of gravity of the whole mass, so that the machine may be always horizontal, and that the impulse of any force used there may actuate the whole body. And he further suggests, that the traveller should be furnished with instruments of sufficient surface to take hold of the air, and of sufficient strength to bear the whole exertion of his muscular force, analogous in their form and situation to the fins of fishes. But by adopting the oblong shape, the surface, and consequently the weight of the cover, must be augmented, in order to obtain the same lifting power with that of a sphere, both because its capacity will be less under the same surface, and because its capacity must be made greater in order to compensate for the augmentation of weight. Besides, an oblong machine cannot easily be kept with the smallest part forward in the atmosphere; and if it should turn sideways, as it probably might, the proposed advantage would thereby be lost: not to add, that accidental circumstances might occur which would endanger its overturning.

In order to expedite the calculations that relate to the construction of a balloon of a spherical form, it should be remembered, that the circumferences of spheres are as their diameters; their surfaces as the squares: and their solid contents as the cubes of the diameters. The proportion of the diameter to the circumference of a circle, \(r \frac{7}{10} \text{ to } 22, \text{ or } 1 \text{ to } 3 \frac{1}{2}, \) should be recollected; so that if the diameter of a balloon be 35 feet, its circumference will be 110 feet. If the diameter be multiplied by this circumference, the product will be the surface of the sphere; i.e. 35 \times 110 = 3850 square feet. If this surface be divided by the breadth (in feet) of the stuff of which the balloon is made, the quotient will be the number of feet in length necessary for contracting the balloon; thus, if the stuff be 3 feet wide, \(3 \times \frac{3850}{3} = 3850 \) feet, or 428 yards, which is the quantity for a balloon of 35 feet in diameter. By knowing the weight of a given piece of the stuff, as of a square yard or square foot, it is easy to find the weight of the whole bag, by multiplying the surface in square feet or yards by the weight of a square foot or yard; e.g. if each square yard weigh 16 ounces, or one pound, the whole bag will weigh 548 pounds. Again, the capacity, or solid content of the sphere, may be found by multiplying \(\frac{4}{3}\) of the surface by the diameter, or by taking \(\frac{4}{3}\) of the cube of the diameter; thus, in the present instance, we shall have, 22458 cubic feet for the capacity of the balloon, or the number of cubic feet of air which it will displace. From the content and surface of the balloon, we may deduce its power of ascension or levity in the following manner:—a cubic foot of air weighs, at an average, about 1.7 ounces, and adding to the number 22458, its fifth part, we shall have 26950 ounces, or 1684 pounds, for the weight of the common air displaced by the balloon. From this weight, deducting the weight of the bag, or 428 pounds, there will remain 1256 pounds expressing the weight of the balloon, independently of the contained air. If this be inflammable air, its weight varies from \(\frac{4}{3}\) to \(\frac{5}{3}\) of the weight of common air; if it be taken at \(\frac{4}{3}\) of the weight of common air, then \(\frac{4}{3} \times 1256 = 2800\) pounds will denote the weight of the air filling the balloon; and taking this from 1256, i.e. \(1256 - 280\), we shall have 976 pounds, the power of ascension of the balloon, or the weight which it will carry up, excluding of the car, ropes, passengers, bag, and other necessaries. If heated air be used, the density of this is diminished about one-third; and therefore, taking from 1684 one-third of itself, there will remain 1123 for the weight of the contained warm air, and this subtracted from 1256, leaves 133 pounds for the weight of the balloon; but as this is not sufficient for carrying up the car, passengers, etc., it is evident that a larger balloon, on Montgolfier's principle, is necessary for the same purpose that may be effected by a smaller one of inflammable air. To estimate the power of ascension corresponding to any given weight, e.g. 1000 pounds; since the levities are nearly as the cubes of the diameters, and consequently the diameters as the cube roots of the levities; and the levities being as 133 to 1000, i.e. nearly as 1 to 8, the cube-roots are as 1 to 2; consequently \(1 : 2 ; \frac{35}{70} \text{ feet, the diameter of a Montgolfier, made of the same thickest of stuff as the former; and capable of lifting 1000 pounds. Pursuing the same kind of calculation, it is easy to estimate the size of a balloon, made of stuff of a given thickness, and filled with air of a given density, that will just float in air. From the weight of a cubic foot of common air, subtract that of a cubic foot of the lighter or contained air; then divide six times the weight of a square foot of the stuff by the remainder, and the quotient will be the diameter, in feet, of the balloon that will just float at the surface of the earth. Suppose the stuff to be 1 pound to the square yard, or \(\frac{1}{16}\) ounces to the square foot, and this multiplied by 6 gives 32, then the cubic foot of common air weighing 14 ounces, and of heated air \(\frac{4}{3}\) of the same, the difference being \(\frac{3}{16}\):
consequently \( \frac{12}{12} \) divided by \( \frac{1}{2} \), gives \( 26 \frac{1}{2} \) feet, which is the diameter of a Montgolfier that will just float; but if inflammable air, \( \frac{1}{2} \) the weight of common air, be used, the difference between \( \frac{1}{2} \) and \( \frac{1}{2} \) is one; by which dividing \( \frac{12}{12} \) or \( \frac{10}{10} \), the quotient \( \frac{10}{10} \) feet will be the diameter of an inflammable air-balloon that will just float. If the diameter, in either of these cases be increased, the respective balloons will ascend in the atmosphere.

In order to determine the height to which a given balloon will rise, when the diameter of the balloon, and the weight that exactly balances it are given, proceed in the following manner:—compute the contents of the globe in cubic feet, and divide its restraining weight in ounces by this content, and the quotient will be the difference in density or specific gravity of the atmosphere at the surface of the earth, and that at the height to which the balloon will rise; subtract this difference or quotient from \( \frac{1}{1} \) or \( \frac{1}{2} \), the density at the earth, and the remainder will be the density at that height; then the height corresponding to that density will be found with sufficient exactness in the annexed Table.

\[ \text{Height of Balloon, Height of Balloon.} \]

\[ \begin{array}{|c|c|}
\hline
\text{Density.} & \text{Height in Miles.} \\
\text{1.200} & 0 \\
\text{1.141} & \frac{1}{2} \\
\text{1.085} & \frac{1}{4} \\
\text{1.031} & \frac{1}{5} \\
\text{0.980} & 1 \\
\text{0.932} & \frac{1}{2} \\
\text{0.886} & \frac{3}{4} \\
\text{0.842} & 2 \\
\text{0.800} & 2\frac{1}{2} \\
\text{0.761} & 3 \\
\text{0.723} & 3\frac{1}{2} \\
\text{0.687} & 4 \\
\text{0.653} & 4\frac{1}{2} \\
\hline
\end{array} \]

Let the diameter of the balloon be 35 feet, its capacity 22458, and the levity of the first 976 pounds, or 15616 ounces; the quotient of the latter number divided by the former, \( \frac{15616}{22458} \) is \( .695 \), which is the density at the utmost height, and to which in the Table corresponds somewhat less than \( \frac{1}{2} \) mile, and this is the height to which the balloon will ascend. When the same balloon was filled with heated air, its density was equal to 133 pounds, or 2128 ounces, which divided by 22458, the capacity, gives the quotient \( .095 \); and this subtracted from 1.000 leaves 1.195 for the density; to which, in the Table corresponds half a mile, or more nearly \( \frac{1}{2} \) of a mile. Such are the heights to which these balloons would nearly ascend, if they retained their figure, and lost none of the contained air: or, more precisely, these are the heights at which they would settle; for their acquired velocity would at first carry them above these heights, till their motion would be destroyed: and then they would descend below these heights, though not so much as they had gone above them: after which they would reascend, and pass these heights again, but not so far as they had gone below them; thus vibrating alternately above and below these heights, but every-time less and less. These calculations for finding the height to which the balloon will ascend, are formed independently of the different rates of the thermometer at the highest point and at the surface of the earth; but the allowances to be made on this account will appear from what is delivered under the article Atmosphere.

Next to the shape, it is necessary to consider the stuff that is most proper for forming the envelope of the inflammable or rarefied air. Silk stuff, especially that which is called Interlining, properly varnished, has been most commonly used for inflammable air-balloons; and common linen, lined within and without with paper, varnished, for those of rarefied air. Varnished paper, or gold beater's skin, will answer the purpose for making small inflammable air-bal-
those gores that form the superficies of a globe: and the first method of cutting them is to describe a pattern of wood or stiff card-paper, and to cut the silk or fluff upon it. One of these pieces, that may serve as a pattern for others, is represented in Pl. 1. Pneumatics, fig. 2. In this figure, suppose A E and B C to be two right lines perpendicular to each other. Then find the circumference answering to the given diameter of the balloon in feet and decimals of a foot; and make A D and D E each equal to a quarter of the circumference. Divide A D into 16 equal parts, and to the points of division apply the lines f g, b i, k, &c. parallel to each other, and perpendicular to A D. Divide the whole circumference into twice the given number of pieces, and make D C and D B each equal to the quotient of this division; so that B C will be equal to the greatest breadth of one of those pieces. Multiply this quotient or D C by the decimals annexed to f g, fig. 2, viz. 0.99619, and the product expresses the length of f g; and multiply D C by the decimals annexed to b i, and the product expresses the length of b i, &c. Having thus found the lengths of all these lines, draw by hand a curve line, passing through their extremities, and this will be the edge of one quarter of the pattern. The other quarters A B, E B, E D, may be easily described by applying to each of them a piece of paper equal to A D C. Suppose the diameter of the balloon to be 20 feet, and that it is to be made of 12 pieces. In order to draw the pattern, and the circumference of the balloon, which is 62.83 feet, and dividing it by 4, the quotient is 15.7 feet: consequently A D and D E will be each equal to 15.7 feet. Divide the circumference 62.83 by 24, or double the number of pieces that are to form the balloon; and the quotient 2.618 feet will be the length of D C or D B; therefore B C is equal to 5.236 feet. Then divide A D into 16 equal parts, and drawing the parallel lines from the points of division, find the length of these lines by multiplying 2.618 by the decimals annexed to that line: thus, 2.618 multiplied by 0.99619 gives 2.608 feet for the length of f g; and multiplying 2.618 by 0.9481, we shall have 2.578 feet for the length of b i, &c. The pieces cut after such a pattern should be left about one half or three quarters of an inch all round larger than the pattern, in order to allow for the seams. They may be joined by laying about half an inch of the edge of one piece over the edge of the other, and sewing them with a double stitching. Mr. Blanchard joins them very expeditiously in the following manner. He lays about half an inch of the edge of one piece flat over the edge of the other, and passes a hot iron over it; in doing which, a piece of paper ought to be laid both under and over the silk. The joining may be rendered more secure, by running it with a silk thread, and tucking a ribbon over it. The ribbons laid over seams may be stuck with common glue, provided the varnish of the silk is properly dried. When the glue is quite dry, the ribbons should be varnished over, to prevent their being unglued by the rain.

To the upper part of the balloon there must be adapted a valve, opening inward, to which is annexed a string passing through a hole made in a small round piece of wood which is fastened to the lower part of the balloon opposite to the valve, to the boat below it; so that the aerostat may open it as occasion requires, and let the inflammable air out of the balloon. To the lower part of the balloon are fixed two pipes of the same fluff with the covering, six inches in diameter for a balloon of thirty feet, and much larger for balloons of greater size, and long enough to reach the boat. These pipes are the apertures through which the inflammable air is introduced into the balloon.

The boat may be made of wicker-work, and covered with leather, well painted or varnished over. The bell method of suspending it is by means of ropes, proceeding from the net which goes over the balloon. This net should be formed to the shape of the balloon, and fall down to the middle of it, and have various cords proceeding from it to the circumference of a circle, about two feet below the balloon; and from that circle other ropes should go to the edge of the boat. This circle may be made of wood, or of several pieces of slender cane bound together. The inches of the net may be small at top, again which part of the balloon the inflammable air exerts the greatest force, and increase in size as they recede from the top. A hoop has been sometimes put round the middle of the balloon for fastening the net. This is not absolutely necessary; but when used, it is best made of pieces of cane bound together, and covered with leather. When the balloon and its appendages are constructed, the next object of importance is to procure proper materials for filling it. With respect to those instated by heated air, nothing need be said till the method of filling them is described.

Inflammable air for balloons of the other kind may be obtained in several ways: but the bell methods are by applying acids to certain metals; by expelling animal, vegetable, and some mineral substanaces, in a close vessel, to a strong fire; or by transmitting the vapour of certain fluids through red-hot tubes.

In the first of these methods, iron, zinc, and vitriolic acid, are the materials most commonly used. The vitriolic acid must be diluted with five or six parts of water. Iron may be expected to yield in the common way about 1750 times its own bulk of gas; or 44 ounces of iron, the like weight of oil of vitriol, and 24 ounces of water will produce one cubic foot of inflammable air; 1 ounce of zinc, an equal weight of oil of vitriol, and 1 ounce of water, are necessary for producing the same quantity. It is more proper to use the turnings or chippings of great pieces of iron, as of cannon, &c. than the filings of that metal; because the heat attending the effervescence will be diminished, and the diluted acid will pass more readily through the interstices of the turnings, when they are heaped together, than through the filings which stick closer to one another. The weight of the inflammable air, thus obtained by means of acid of vitriol, is in the common way of procuring it, generally one-seventh part of the weight of common air; and with the necessary precautions for philosophical experiments, less than one-tenth of the weight of common air. The other calcic fluids, which are generated with the inflammable air, may be separated from it by passing the inflammable air through water, in which quicklime has been dissolved; the water will absorb these fluids, cool the inflammable air, and prevent its overheating the balloon, when it is introduced into it. As white vitriol is sold much dearer than the vitriol of iron, it will be a saving to make the inflammable air by means of zinc and vitriolic acid, rather than of this acid and iron; because the sale of the white vitriol arising from the former will, in a degree, be a compensation for the expense of the materials.

Inflammable air may also be obtained at a much cheaper rate by the action of fire on various substanaces; but the gas thus obtained is not so light as that produced by the effervescence of acids and metals. The substances proper to be used for this purpose are pit-coal, asphaltium, amber, rock oil, and other minerals; wood, and especially oak, camphor oil, spirits of wine, amber, and animal substanaces, which yield air of different degrees and of various specific gravity. But pit-coal is the substance most proper to be used. A pound of
of pit-coal, exposed to a red heat, yields about three cubic feet of inflammable air, which, whether it be passed through water or not, weighs about one-fourth of the weight of an equal bulk of common air.

Dr. Priestley observes, that animal or vegetable substanaces will yield fix and even ten times more inflammable air, when the fire is suddenly increased than when it is gently raised, though it be afterwards made very strong. And Mr. Cavvallo informs us, that the various substanances above enumerated generally yield all their inflammable air in about an hour's time. The usual method is to include the substanaces in earthen or iron vessels, and thus to expose them to a strong fire sufficient to make the vessels red-hot; the inflammable air proceeding from the aperture of the vessel, is received into a tube or refrigeratory, and passing through the tube or worm, is at last collected in a balloon or other vessel. A gun-barrel has been often used for effays of this kind. The manner of conducting this process is particularly described by Mr. Cavvallo, vide infra.

The last method of obtaining inflammable air was lately discovered by Mr. Lavoisier, and also by Dr. Priestley. Mr. Lavoisier made the flame of boiling water pass through the barrel of a gun, kept red-hot by burning coals. Dr. Priestley uses, instead of the gun-barrel, a tube of red-hot brass, upon which the flame of water has no effect, and which fills with the piece of iron which are separated in the boring of cannon. By this method he obtains an inflammable air, the specific gravity of which is to that of common air as 1 to 1.5. In this method, a tube about three quarters of an inch in diameter, and about three feet long, is filled with iron turnings; then the neck of a retort or clofe boiler is luted to one of its ends, and the worm of a refrigeratory is adapted to its other extremity. The middle part of the tube is then surrounded with burning coals, so as to keep about one foot in length of it red-hot, and a fire is always made under the retort or boiler sufficient to make the water boil with vehemence. In this process a considerable quantity of inflammable air comes out of the worm of the refrigeratory. It is said that iron yields one half more air by this means, than by the action of vitriolic acid. See Hydrogen.

Balloons of the smaller size, such as those of two or three feet in diameter, and also bladders, may be filled with inflammable air, after passing it through water, by means of the following simple apparatus. See Plate I. Pneumatics, fig. 3. A is the bottle that contains the ingredients which produce the gas; BCD is a tube in form of a syphon, fitted by one extremity into the neck of this bottle, and passing through a hole of the flopper of another bottle E, it extends so far as almost to touch the bottom of this bottle, which is nearly full of water. To another hole made in the cork of the bottle E is adapted another tube, to the outer extremity of which a bladder, or the aperture of the balloon is tied. The inflammable air, coming out of the aperture D of the tube, passes through the water of the bottle E, and then enters into the bladder or balloon. Two small calks might be used instead of the bottle E and A.

Another apparatus for producing hydrogen and conveying it into a balloon is exhibited in fig. 4. ABC is a vessel made of clay, or of iron, in the form of a Florence flask, and the substanace yielding gas is introduced into it so as to occupy about four-ths, or less, of its capacity. If the substanace yields much by the action of the fire applied to it, a tube of brass, or lisi a brass, and then a glass tube must be luted to the neck C of the vessel, and the extremity D of the tube is made to pass through the water of a tube H I, and to terminate under an inverted vessel F E, to the upper aperture of which the balloon, or a tube going to the balloon is adapted. When the part, A B, of the vessel is put into the fire, and made red-hot, the inflammable air that is generated will come out of the tube C D, and passing through the water of the tube, it will at last enter into the balloon G. As a considerable quantity of common air remains in the inverted vessel E F, before the operation is begun, it should have a stop-cock, K, through which it may be drawn off by suction, and then the water will ascend as high as the stop-cock. The aperture of the vessel, E F, should be at least one foot below the surface of the water in H I, and the fire should be at a sufficient distance from the tube H I, that the inflammable air, if any of it should escape, may not take fire and do injury.

The method of filling large aërostatic machines with rarefied air is as follows. A scaffold A B C D (Plate II. fig. 5.) the breadth of which is at least two-thirds of the diameter of the machine, is elevated about six or eight feet above the ground. From the middle of it descends a well E F, slanting about two or three feet above it, and reaching to the ground, furnished with a door or two, through which the fire in the well is supplied with fuel. The well should be constructed of brick or of plastered wood; and its diameter should be somewhat less than that of the machine. On each side of the scaffold are erected two masts H I, K L, each of which has a pulley at the top, and rendered firm by means of ropes KG, KP, HP, HG. The machine to be filled is placed on the scaffold, with its neck round the aperture of the well. The ropes passing over the pulleys of the two masts, serves, by pulling its two ends, to lift the balloon about fifteen feet or more above the scaffold; and the rest of the machine is represented by the dotted lines in the figure M N O. The machine is kept steady and held down, whilst filling, by ropes passing through loops or holes about its equator; and these ropes may be easily disengaged from the machine, by lifting them through the loops, when it is able to sustain itself. The proper combustibles to be lighted in the well are those which burn quick and clear, rather than those as produce much smoke; because if it is hot air, and not smoke, that is required to be introduced into the machine. Small wood and straw have been found to be very fit for this purpose. Mr. Cavvallo observes, as the result of many experiments with small machines, that spirits of wine are upon the whole the best combustible; but its price may prevent its being used for large machines. As the current of hot air ascends, the machine will soon dilate, and lift itself above the scaffold and gallery, which was covered by it. The passengers, fuel, instruments, &c. are then placed in the gallery. When the machine makes efforts to ascend, its aperture must be brought, by means of the ropes annexed to it, towards the side of the well, a little above the scaffold. The fire-place is then suspended in it; the fire lighted in the grate; and the lateral ropes being flipped off, the machine is abandoned to the air. It will appear in the atmosphere as it is represented in fig. 6. It has been determined by accurate experiments, that only one-third of the common air can be expelled from these large machines; and therefore, the ascending power of the rarefied air in them can be estimated as only equal to half an ounce avoirdupois for every cubic foot. The apparatus for filling an inflammable air balloon is represented in fig. 7. A, A are two tubes, about three feet in diameter, and nearly two feet deep, inverted in larger tubs, B, B, full of water. At the bottom of each of the inverted tubes there is a hole, to which is adapted a tin tube E, about seven inches in diameter, and seven or eight inches long. To these tubes the filament tubes of the balloon.
balloon are tied. Each of the tubes, $B$, is surrounded by several strong coats, to regulated in number and capacity, as to be less than half full, when the materials are equally distributed. In the top of each of these coats are two holes; and to one of these holes is adapted a tin tube, formed so as to pass over the edge of the tube $B$, and through the water, and to terminate with its aperture under the inverted tube $A$. The other hole, which serves for supplying the cast with materials, is flapped with a wooden plug. These tin tubes may be about three inches and a half in diameter, and the other holes may be smaller. Two masts, with a rope, &c. are used for this machine, as well as for the former, although they are not absolutely necessary; because the balloon, by means of a narrow scaffold, or other contrivance, may be elevated five or six feet above the level of the tube $A A$. When the balloon is to be filled, the net is put in it and suspended, as exhibited in $D F$, and having expelled all the common air from it, its silk tubes are fastened round the tin tubes $E E$, and the materials in the coats are properly proportioned; the iron being first put in, then the water, and lastly the vitriolic acid. The balloon will soon be inflated by this inflammable air, and support itself without the aid of the rope $G H$. As the filling advances, the net is admitted round it, the cords, proceeding from the net, are fastened to the hoop $M N$; the boat $I K$ is suspended from the hoop $M N$, and every thing necessary for the voyage is deposited in the boat. When the balloon is a little more than three quarters full, the silken tubes are separated from the tin tubes, and their extremities being tied, they are placed in the boat. Finally, when the aeronauts are seated in the boat, the lateral ropes are slipped off, and the machine ascends in the air, appearing as in fig. 8. In order to produce such a bulk of inflammable air as is necessary for a balloon of 30 feet in diameter, whose capacity is 14,137 cubic feet, there will be required about 3900 pounds of iron turnings, 3900 pounds of vitriolic acid, and 19500 pounds of water. The balloon will not be above three quarters full.

These proportions, stated by Mr. Cavallo, are too great with respect to the metal and acid, and too small with regard to the water. Mr. Lunardi, who had considerable experience in the practice of aeronautics, filled his balloons at Edinburgh and Glasgow with about 2000 pounds of the chippings of cannon procured from Carron, the fame quantity of vitriolic acid, and 12,000 pounds of water. The iron was placed in layers in his vessels, with straw between them, in order to enlarge the surface exposed to the action of the acid. He used only two large coats, which were sunk in the ground, and conveyed the gas into the balloon without passing through water; and he contrived to fill his balloon in less than half an hour, which operation had on former occasions required at least two hours.

The inflammable air with which they fill their balloons at the Aerostatic Institute, not long since established in France, is obtained by the following method, which is simple and not very expensive. Six cylinders, or tubes of iron, are fixed by majolery in a furnace of clay and expedient construction, in such a manner that the two ends of each cylinder project out of the furnace; and these are furnished with strong covers or lids of iron. Into these cylinders are introduced tubes of metal, one of which serves to convey warm water into the red-hot cylinder, and the other to convey the air which is produced through a receiver filled with candle-lye, into the balloon. The cylinders are partly filled with the chippings or turnings of iron that are procured from the boring of cannon. The excessive heat of the furnace, which is maintained by a supply of charcoal during the operation, is communicated to the cylinders and their contents. In this state, boiling water is conveyed by one of the tubes to each cylinder; and as soon as it communicates with the inflamed iron, the water is decomposed: the one part, called the oxygen attaches itself to the iron and calcines it; but the other part, or the hydrogen, is combined with a quantity of the igneous substance, called caloric, and becomes hydrogeneous gas, or inflammable air, which remains in a permanent state of effusive fluidity, and weighs seven or eight times less than the atmospheric air. As the water contains a small quantity of carbon or fixed air, which would add weight to the air of the balloon, it is made to pass through water in which caustic alkali has been dissolved. This fluid attaches the carbon to itself, and thus the pure inflammable air is conveyed into the balloon. The cylinders, in this operation, are sometimes fused; for preventing which accident, a pyrometer is annexed to the extremity of the cylinder which projects from the furnace; and the fire is regulated by a lenie connected with the pyrometer. The operation of filling a balloon, 30 feet in diameter, in this way will occupy about four hours.

In estimating the ascending power of these machines, that of the inflammable air should be considered as equal to one ounce avoirdupois for every cubic foot, which is one sixth of the weight of common air; and therefore, if the capacity of a balloon is 12000 cubic feet, and three-fourths of it are filled with inflammable air, obtained from iron and dilute vitriolic acid, the ascending power of that gas may be estimated at 9000 ounces, or 562½ pounds; from which the weight of the covering, boat, and other appendages, must be subtracted.

The conduct of balloons, when constructed, filled, and actually ascending in the atmosphere, is an object of great importance in the practice of aeronautics. The method generally used for elevating or lowering the balloons with rarefied air, has been the increase or diminution of the fire; and this is entirely at the command of the aeronaut, as long as he has any fuel in the gallery. The inflammable air-balloons have been generally raised or lowered by diminishing the weight in the boat, or by letting out some of the gas through the valve. But the alternate escape of the air in descending, and discharge of the ballast for ascending, will by degrees render the machine incapable of floating; for in the air it is impossible to supply the losts of ballast, and very difficult to supply that of inflammable air. These balloons will also rise or fall by means of the rarefaction or condensation of the inclosed air, occasioned by heat and cold. It has been proposed to aid a balloon in its alternate motion of ascent and descent, by annexing to it a vessel of common air, which might be condensed by lowering the machine, and rarefied again, by expelling part of it, for raising the machine. But a vessel adapted to this purpose must be very strong, and, after all, the assistance afforded by it would not be very considerable. M. Meunier, in order to attain this end, proposes to inclose one balloon filled with common air in another filled with inflammable air: as the balloon ascends, the inflammable air is diluted, and of course compresses the internal balloon containing common air; and by diminishing its quantity, lessens its weight. If it should be necessary to supply this loses, he says it may be easily done by a pair of bellows fixed in the gallery. Others have proposed to annex a small machine with rarefied air to an inflammable air-balloon by ropes, at such a distance that the fire of the former might not affect the inflammable air of the latter; the whole apparatus, thus combined, of balloons formed on the two principles of heated and inflammable air, might
might be raised or lowered by merely increasing or diminishing the fire in the lower balloon. Wings or ears seem to have contributed little to the effect of either raising or lowering balloons.

Many schemes have been proposed for directing the horizontal motion of balloons. Some have thought of annexing sails to a balloon, in order to give it the advantage of the wind; but to this proposal it has been objected, that as the aerostatic machines are at rest with respect to the air that surrounds them, they feel no wind, and consequently can derive no benefit from the sails. An ingenious writer observes, that the wake of vessels at sea is quite different from that of balloons: because the former move with a velocity incomparably less than that of the wind impelling them, on account of the resistance of the water; and therefore, the difference between the velocity of the wind, and that of ships, occasions that stream of air which acts upon the sails. But a balloon, finding no resistance, acquires the same velocity with the surrounding air, and therefore can feel no wind. The same author adds, that the most rational projects for directing an aerostatic machine are those which propose to exert a force against the ambient air on one side of the machine, so as to move it in the opposite direction. Oars and wings are the only instruments that have been used for this purpose with any measure of success; but further experiments are necessary to ascertain their effect. If wings or ears are used, the belt method of moving them is by the immediate application of human power, as in the case of the oars of boats on the water. However they should be as large and light as possible, and they may be made of silk stretched between wires, tubes, or sticks. If they are flat they must be turned edgewise when they are moved in the direction of the balloon's course, and flat in the opposite direction. One of the wings, used by Mr. Blanchard, is represented in Fig. 9. That used by Mr. Lumardi consisted of many silk shutters or valves A B C D, D E C F, &c. (Fig. 10.) each of which opens only on one side, viz. A D B C upon the line A B, D E C F upon the line D C, &c.; and by this construction, it becomes unnecessary to turn these oars edgewise. One of the wings, constructed by Zambecchi, is exhibited in Fig. 11, and is nothing more than a piece of silk stretched between two tin tubes let at an angle; and so contrived as to turn edgewise of themselves, when they go in one direction. Fig. 12. represents one of the wings used by Meffrs. Roberts, in the voyage of September 19th, 1784. The greatest effect produced by the wings of an aerostatic machine was that which occurred in this voyage. It is not difficult to determine what force is necessary to move a given machine in the air with any proposed velocity. Dr. Hutton found, from accurate experiments, that a globe of 64 inches in diameter, and moving with a velocity of 20 feet in a second, sustains a resistance from the air, which is equal to the weight or preffure of one ounce avoiduopous; and that with different surfaces and the same velocity, the resistances are directly proportional to the surfaces nearly; and also that, with different velocities, the resistances are proportional to the squares of the velocities nearly. By these data the resistance to move a given balloon with any velocity may be ascertained. Let the balloon be 35 feet in diameter; then if it moved with the velocity of 20 feet per second, or almost 14 miles per hour, it would counteract a resistance equal to 271 pounds; with a motion of seven miles an hour, the resistance would be 68 pounds; and at three miles and an half in an hour, the resistance would be 17 pounds; and such is the force with which the aeronaut must act on the air in a contrary direction, in order to communicate such a degree of motion to the machine. If the balloon move through a rar-rar part of the atmosphere than that at the surface of the earth, as 4d or 4th, &c. rarer, the resistance will be less in the same proportion; yet the force of the ears will be diminished as much; and therefore the same difficulty remains. It may be observed in general, that the aeronaut must strike the air, by means of his ears, with a force just equal to the resistance of the air or the balloon, and therefore he must strike that air with a velocity which must be greater as the surface of the one is less than the rectified surface of the globe, but not in the same proportion, because the force is as the square of the velocity. Suppose that the aeronaut acts with an ear equal to 100 square feet of surface to move the balloon above-mentioned at the rate of 20 feet per second, or 14 miles an hour, then he must move this ear with the great velocity of 62 feet per second, or nearly 45 miles an hour; and in proportion for other velocities of the balloon. Hence it is highly probable, that it will never be in the power of man to guide such machines with any tolerable degree of success especially when any considerable wind blows, which is generally the case. A helm seems to have no particular power in directing the course of a balloon, for the same reason that has been alleged to evince the inefficacy of sails. We have not in air, as in water, says count de Mirabeau, in his Considerations on the Order of Cincinnatus, the reference of a fixed point of action upon a fluid, which has also much greater resistance than air. He adds, that as there are different currents of air, sometimes in opposite directions, and balloons are capable of ascending and descending in search of these currents, this circumstance may favour the hope of directing aerostatic machines. Perhaps, an attention to the means by which birds fly against the wind, added to observations of comparative anatomy upon fishes and birds, which surfurn the currents of the fluids that are common to us and them, may also suggest new ideas with respect to the direction of balloons. Time alone, and numerous experiments, can bring these reflections to maturity, and realize the expectations suggested by them.

Several of the foreign journals have lately announced an invention of professor Danzel for directing an air-balloon through the atmosphere. With this view he has constructed two cylinders, or axles, to the ends of which are fixed, in the form of a cross, four sails, or ears, movable at the point of their infection in the cylinder, in such a manner, that when made to move round by means of a handle, the eight ears, like the eogs of a water-wheel, prevent successively to the air sometimes their flat side and sometimes their edge. To cause each ear to turn back on itself about the fourth part of a circle, M. Danzel has not only left sufficient play at the point where the fiek of each ear is infected in the cylinder, but has placed the fiek in such a manner that the air itself makes the ear fall back, at each turn, with the necessary velocity and precision. Each of the two cylinders, armed with its four ears or sails, is designed to occupy one side of the balloon, with its four ears on each side. For a further account of this apparatus and of its effect, see Philosophical Magazine, vol. iv. p. 108.

As parachutes, in the form of umbrellas, have been proposed in order to guard against accidents, and to break the fall in cases of sudden descent, we shall here annex a method of estimating the power of such defensive machines. A person, moving uniformly at the rate of ten feet per second, may descend with safety. For this uniform descent the resistance of the air must be equal to the whole descending weight. Suppose then that the weight of the aeronaut is 150 pounds, and that the parachute is flat and circular, and made
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and of such materials as that every square foot of it weighs two ounces, and that the weight varies in the proportion of
the square of the radius of the equi-diameter of the packet, which will be
reduced to a mean of ten feet from the lower. If the packet be
placed on the lower, its power will be
ranging greater, and its diameter less. In order to
calculate the power of a balloon packet, or the re-
stance it meets with from a mass of air, when de-
ferred, it has a given velocity, let the number be
the square of the velocity in feet, fo is the force
of the diameter in feet to a fourth number, which will be the re-
stance in pounds. And if it be required to know, with
what velocity a parachute will descend with a given weight,
for as the given distance is to the square root of the weight,
so is the number 281 to a fourth, which will be the ve-
locity in air of a mean density. Thus, if the character of a
balloon be 53, and its weight, together with that of a man,
be 550 pounds, the square root of which is 23 very nearly;
than 50: 23 26 181, and therefore the man and pa-
rachute will descend with the velocity of 15 feet per second;
which, as it is equal to that acquired by leaping freely
from a height of two feet two inches, may be very safely
furnished.

AEROSTATION, n. s. (2). The advantages of an art, so
late discovered, have not yet been sufficiently ascertained;
but we may reasonably expect, considering the progress it
has made, to boast a space of time, that many benefits
may result from the farther propagation of it. To lay
the lead, it is unphilosophical to discourage future trials and
improvements, because the uses of this art do not immediately
appear. With regard to philosophical observations, derived
from aeronautics, it is acknowledged that very few
have yet been made. The novelty of the discovery, and of the
prospect, says Mr. Cavallo, has generally diffused the atten-
tion; and besides, most of the aerial voyages have been
made by persons who had pecuniary profit alone in view,
or who were induced to ascend in the atmosphere for
the sake of the prospect, or by the vanity of adding their
names to the list of aerial adventurers. Aerial navigation,
considered as a mode of travelling between distant places,
independently of its furnishing means of conveyance to
places otherwise inaccessible, is attended with many ad-
vantages and conveniences. The aeronaut has much less
trouble with this machine than a sailor with a ship in
the most favourable circumstances. With a moderate wind,
aerial navigators have often gone at the rate of forty or fifty
miles an hour, and very commonly at the rate of thirty
miles without any agitation, or even feeling the wind, and
without the danger of losing time by being often becalmed.
Aerostatic machines may serve the purpose of eescaping
from ships that cannot safely land, from besieged places,
and from other circumstances of danger. A small balloon
fix or seven feet in diameter, says an anonymous author in
his proposal of various means for saving the crews of vessels
shipwrecked near the coast, would answer this purpose, by
carrying to the shore a firing capable of making a cord,
which several ropes might be afterwards conveyed to
the vessel. They also expedite the communication of im-
portant events by signals, and serve for exploring, from
a great elevation, adjacent coasts or regions, fleets and armies.
To the latter of these purposes they have been actually ap-
plied by the French, in the course of the last war; and to
the elevation of a balloon, and the information obtained in
consequence of thus reconnoitering the army of the enemy,
they ascribe the signal victory obtained in the battle of
Flers in 1794. The balloon employed on this occasion,
was called the Entrepkinent, and it was under the direction
of M. Conté, the captain of the aeronauts at Meudon,
accompanied by an adjutant and a general. He ascended
three times in the same day, to the height of 220 fathoms, for
the purpose of observing the position and movements of the
enemy. He continued each time four hours in the air, and
accompanied with General Jourdain, who commanded the
French army, by means of pre-arranged signals. The ent-
repkinent was discovered by the enemy, and a battery opened
its fire against the ascending aeronauts; but they soon
 gained an elevation which was beyond the reach of their
fire. This balloon was prepared under the direction of the
Acrolic Institute, for the use of the army of the north;
as were also another called Géopolis, for the army of the
Sambre and Meuse; and the Inflable and Intrepkinent,
for the army of the Rhine and Mecklenburg. Another, thirty feet
in circumference, and weighing 160 pounds, was designed
for the army of Italy. A new machine, invented by M. Conté,
the director of the Aerostatic Institute, was designed to aid
the aeronauts in communicating intelligence, and was de-
nominated the Aerostatic Telegraph. Balloons may like-
wise serve to explore the rate of the atmosphere at differ-
ent heights, and to furnish observations, which shall illustrate
a variety of phenomena, depending on the density, tempera-
ture, and other qualities of the air. From one experiment
that has been already made we learn, that the air of a
high region, preferred and examined by means of nitrous
air, was found to be purer than the air below. The appli-
cation of these machines to electrical experiments, is a very
obvious use of which they are capable. The first per-
son who employed them in this way seems to have been the
Abbe Bertholon, at Montpellier. He raised several air
balloons, furnished with long and slender wires, having
their lower ends fastened to a glass stick, or other inflating
substance; and thereby obtained from the wires electric
fluid sufficient to throw the attraction, repulsion, and even
the sparks of electricity. The existence of a continual elec-
tricity, of the positive kind, in a clear atmosphere, known
indeed before, has been farther ascertained by trials fast-
tened to balloons floating in the atmosphere. Some have
apprehended danger from the electricity of the atmosphere
and have thought that a stroke of lightning, or the smaller
electrical spark, happening near a balloon, might set fire to
the inflammable air, and destroy both the machine and the
adventurers. Mr. Cavallo has suggested several considera-
tions of disuading apprehensions of this kind. Balloons
have already been raised in every nation of the year, and
even when thunder has been heard, witho ut injury. In
case of danger, the aeronauts may either descend to the
earth, or ascend above the region of the clouds and thunder
storms. Besides, as balloons are formed of materials that
are not conductors of electricity, they are not likely to re-
ceive strokes, especially as by being encompassed with air
they flail inflamed. Moreover, inflammable air by itself, or
unmixed with a certain quantity of common air, will not
burn; so that if an electric spark should happen to pass
through the balloon, it would not set fire to the inflammable
air, unless a hole was made in the covering.

For a variety of other important and useful particulars
relating to the subject of aerostation, we must refer to Mr.
Cavallo's curious and comprehensive work, entitled, the
History and Practice of Aerostation, Svo. 1785; which
will afford the reader ample information concerning the
principles of this art, and the history of its progress, the
method of constructing and managing balloons, the na-
ture and preparation of the materials of which they are
formed, the observations and uses to which they are
adapted,
adapted, and rules for estimating the heights to which they ascend.


ÆRSCHOT, or ARSCHOT, in Geography, a town of the Austrian Netherlands in the duchy of Brabant, and capital of the district of the same name; which was raised to a marquisate in 1567, and to a duchy in 1532. The town is small, but fortified and well inhabited, seated on the river Dender, about ten miles south of Mechlin, and eight miles north of Louvain, and contains a collegiate church, two monasteries, and three nunneries. It belongs to the Houle of Arenheim. N. lat. 52°. E. long. 5°. 4'.

ÆRTSEN, in Biography. See AERSSENS.

ÆRLVA, in Botany, a genus of the monadelphia decandra class and order. The characters of which are, that the flowers are polygamous; the calyx is five-leafed and patent; the filaments are five, and barren; the pistillum is a globulous ovary, having a filiform style terminated by a bifid stigma; the fruit is a capsule, which is oblong, single-seeded and encompassed by the calyx. There is one species, viz. A. erysiphinae or tomontinae, which grows on fally calcareous soil in Arabia. La Marek thinks it bears affinity to the amaranthus.

ÆRUINOUS, something partaking of, or like to, the ruff of copper.

Authors do not seem perfectly agreed about the colour to be expressed by this word, some expressing by it green, others brown.

ÆRUGO denotes RUST, especially that of copper.

Naturalists speak of two kinds of ærugo, one native, and the other factitious: the native, is only the superficial particles of the metal dissolved; and intimately mixed with acid salt; in which form it is ordinarily found in copper-mines, and other metal places: and the artificial, commonly called verdigris, or copper converted into a green calx by vinous acid.

One species of natural ærugo is a greenish marcasite, like the drops of iron; it is found in copper-mines, but is of no use. Dioecorides (lib. v. c. 91, 92.) and Pliny (lib. xxxiv. c. 11, 12.) say expressly, that a substance of the nature of these stones, which yielded copper when melted, was scraped off in the mines of Cyprus, much in the manner now practiced in Hungary, where the outer coat of the copper ore is thus collected, and afterwards purified by being washed in water. Another species, according to the account of Dioecorides, was procured from the water of a grotto in the same island; and the most salable natural verdigris is still obtained in the same way in Hungary. The clear water which runs from old copper works is put into large vesicles, and after some time the green earth falls to the bottom as a sediment. There is also, on some mountains in Moravia, a sort of green grains, like sand, that is of a brass green, when used in painting. It is called the Hungarian mountain, or sea verdigris. See mountain green.

ÆRUGO rufcula, or æruva rufa, is a rust formed on copper, by hanging a plate of it over the strongest vinegar for some time, without touching the one to touch the other. It was only used externally by Dioecorides and the ancient physicians for cleansing ulcers, and destroying excrescences: but it has been more lately employed externally with efficacy of myrrh and honey of roses in fistulae and aphtae, and also internally for malignant ulcers that have corroded the bones, and either with or without turbit mineral as a remedy for men or beasts that have been bitten by mad dogs or wolves. The dofe has been from three to six grains. Pills, formed of the æruva, in a manner however that has been concealed, have been recommended for the cure of the ulcers; but their beneficial effect has been disputed.

ÆGS, in Natural History, a name given by Pliny, and several other ancient authors, to a reddish shining matter, separated from the Egyptian salt, called natrum, in purifying it. We find this matter remain in the filter, on dissolving and filtering the Egyptian nitre, at this time; it seems to be a mixture of bituminous matter, and a red earth, which had mixed themselves among the cakes of the salt, during the time of their concreting from the water.

ÆRUSCATORIUS, formed from Æruscus, to hog, mump, &c. in Antiquity, a kind of sharpening frollers, who got their living by tricks, telling fortunes, and the like, much like modern gypsies. The term is also applied to opprobrious tax-gatherers.

The Galli, or priests of Cybele, were called Æruscatorides angeani matris, on account of their begging, or collecting alms in the streets. To which end they had little bells whereby to draw people's attention to them, much like some orders of mendicants abroad.

ÆRY, or AIRY, in speaking of hawks, eagles, or the like, answers to the nest of other birds.

ÆS, in Antiquity, has various figurings; but it properly denotes bras or copper. It was for a long time applied indiscriminately to either of these metals; and it was not till a late period that metallurgists, in order to distinguish them, gave the name cuprum to copper: as copper was the first metal used in coinage by the Romans, the word ÆS was used in their language to signify money in general. It likewise denoted a particular coin made of that metal.

Æs caladium, or cast bras, otherwise called Æs olarium, or pot bras, is a species of bras mentioned by Pliny, which was not capable of being hammered. This is likewise a term used by the German mineralists, for a substance which sometimes occurs to those who work upon cobalt, and is used for making the fine blue colour called scialy.

Æs condylium, among the Ancients, was different from that which we call white bras; it is a purer and whiter kind of metal found, it is said, under the veins of silver, somewhat analogous to Venetic tinct. They had probably a method of making copper silver as well as yellow, equal, if not superior, to that now in use. The phrases of oriculacum album in Virgil, (Æn. xii. 87.) and AEAS bruxam among the Greeks, strictly signify white brass.

Æs Corinthium, a precious metallic composition, of a much finer colour than common bras, and in its beauty little inferior to gold. Pliny says, (Hist. tom. ii. p. 640. Ed. Hard.) that this was an accidental mixture of metals at the top and conglomeration of Corinth by L. Munnius, 146 years before Christ: when the gold, silver, and brass statues, and all metallic substances, melting and mingling together, formed this mafs. He says, that there were three forts of Corinthian bras, viz. the red, the white, and that which was of the colour of money, according to the different proportions of gold and silver that were in it. But some refiners, who have finely examined this metal, find no gold in it; a circumstance which, if true, suggests some reason, among others, for concluding, that this account is fabulous. However, the fable has been interpreted by some to signify, that the art of making copper into brass was first discovered by the Corinthians, who found the cala-

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nine, borne on the plains of Peloponnesus, or at least that they brought this art to perfection.

*Æs coronarium,* used by Pliny, (H. N. tom. ii. p. 659,) to denote brass wrought into thin plates, and which, he lays, stained with the gull of bull, furnished a foot of gold for the crowds of players. This was called *æs aurifacium,* in contradistinction to the *æs fiftum,* or *æs cadunium.* The latter was both brought from Cypr. us.

*Æs Cyprium,* was a kind of copper produced in the island of Cyprus. This denomination was first given to copper in general; whence it was called *æs cyprium,* and at length *æs Cyprium.* The superiority of the Cyprian copper gave occasion to this appellation.

*Æs flavum,* yellow copper. All the Roman authors have mentioned the method of making brass with *æs calamine* and *æs copper,* but their finest kind, which they called *æs arsicalum,* or *æs aurifacium,* they distinguished from the inferior sorts, which had only the name of *æs flavum.*

*Æs gravis* denoted money among the Romans, which was paid by weight, and not by tale. In this sense it is used by Buddeus and Scaliger.

But others by *æs gravis* understand large pieces of copper coined, containing, for instance, an *æs,* or pound of that metal, such as we find current in Sweden. These they affort bore the title *æs gravis,* till the time in which they were reduced to a smaller standard.—Grönovius, on the contrary, maintains, that the *æs,* or pound weight, did not acquire the appellation, *æs gravis,* till after their reduction. Philos. Trans. No. 19.

Küster rejects all these opinions, and affirms, that the expression is used to denote any kind of copper-money compared with gold or silver; which, with regard to the bulk and size of the pieces, was much lighter, though of greater value.

But this system, however plausible, is rejected by several learned men, particularly Perizonius, and Mr. Ward. The former has a dissertation on the subject, wherein the opinion of Grönovius is further examined and defended.

*Æs hepaticum* was of a silverish colour, and probably what the moderns call *bronze,* though some confound it with the *æs Cornithium.*

*Æs papirum* is a name given to *æs cordum,* divedel of its silver, when it contains any.

*Æs rude,* that unshapen, or not fashioned for any particular purpose.—Some will have this to be the same with *æs gravis.*—The money, during the first ages of Rome, was all of this kind.

Others, by *æs rude,* understand metal unstamped; in opposition to *æs funamentum,* that stamped, or coined.

*Æs ulsum,* called also *æs venens,* *æs crenatum,* *æs crucis,* and *æs arsenis,* is a term which, like many others among the old chemists, has been applied to two or three different substances; it is, therefore, on this account deferred rejected from the reformed nomenclature. Kunkel (Labor. Chym. p. iii. c. 39.) employs it as a general denomination for a perfect oxyd of copper prepared by heat; the expression is, however, more commonly employed to denote a pharmaceutical preparation once much in vogue as an aperient, but now fallen into disuse. This *æs ulsum* efficaciously consists of copper and sulphur; and the different varieties originate from the relative proportions of the ingredients, and the different states of oxydation of the copper. It is usually prepared by stratifying in a crucible copper clippings and powdered sulphur, and heating the crucible by degrees till it ceases to emit any vapours; it must then be raised to a dull red heat for an hour; there refasts a brittle mass which when pulverized and washed is the substance in question. Barthelet's method is still more simple, consisting merely in heating a drop of copper with white heat, and rubbing it with a roll of brimstone; as soon as it is taken out of the fire, the copper combines eagerly with the sulphur, and the compound runs down in drops, and is received in a buffalo of water; this is then pulverized and washed. In both these the compound is a slightly oxydized copper, figured with sulphur; of an iron brown colour. In addition to these precedes Lemery goes on to heat the sulphured oxyd in a reverberatory nine times successively, quenching it in linseed oil after each roasting. He thus obtains a product of a high red colour, which in fact is a simple oxyd of copper, the sulphur being burnt out. Some recommend a mixture of nitre or common salt with the sulphur, and the substance resulting from this, if not washed, is certainly a very powerful aperient on account of the sulphurated alkali which is thus combined with the oxyd of copper. As to the sal ammoniac and vinegar, in which some previously steep the copper, it is wholly useless, all its effect being destroyed by the subsequent heating. Dict. Method. Art. *Æs ulsum.*—New Dispenfatory, 1765, p. 498.—Beaume’s Chymic. Experiment, vol. ii. p. 651.—Cren’s Chemistry, vol. ii. p. 269.

*Æs ulsum* is very drying and detegniir, and has been, on that account, mixed with plasters and unguents, for drying up fistulous ulcers, and imbibing acrimonious humour, or soanes. It is also commended for disorders of the eyes; and joined with cardomoms and honey-water, it has been prescribed internally to epileptics, with whom, according to Dioscorides, it operates as an emetic, and according to Aretæus, as a laxative. See Gnedi’s App. Med. vol. i. p. 344. It is likewise used for colouring glazes.

*Æs xerorum,* in Antiquity, a sum paid, by bachelors, as a penalty for living single to old age.

This tax for not marrying seems to have been first imposed in the year of Rome 350, under the censorship of M. Furius Camillus, and M. Pothismus.

At the census, or review of the people, each person was asked, *Est tu in anima xeronis biceps librorum querendarum causae?* He who had no wife, was hereupon fined after a certain rate, called *æs xerorum.*

*Æs; flos Æris,* called by the Greeks, *κρανιον ωμος* (sometimes confounded with moderns with *chloroidium*), is prepared of copper melted, and removed into other furnaces, wherein being exposed to a farther and greater heat, and vehemently agitated by bellows, it deposits an infinite number of small scales, like millet grains, which being separated by lotion, make the flos eris. The cold water is poured on the copper, as it runs out of the furnace into the receiver.

*Æs; fumna Æris* properly denotes flakes of that metal struck off by the hammer, in the operations of the forge, &c. These, from the Cyprian copper-works, are called *Helmin.*

*Æs; per Æs & librum* was a formula in the Roman law, whereby purchases and sales were ratified.

Originally the phrase seems to have been only used in speaking of things sold by weight, or by the scales; but it afterwards was used on other occasions. Hence even in adoptions, as there was a kind of imaginary pur chase, the formula thereof expressed, that the person adopted was bought per *æs & librum.*


*Æsalon,* in Ornithology, a species of falcon, called in English the Merlin. *Æsalon carolinensis,* is the name...
Given by Brillon to the accepter minor of Catherby, and the
Falco sparverius of Linnaeus, which has a yellow cere,
brown head, red vertex and abdomen, and bluish wings.
The head of the female is encompassed by even blackish
spots.

ÆSANIS, in Ancient Geography, a town of Phrygia
Major, according to Ptolemy.

ÆSAPUS, a river of Mytilus, in Asia Minor, according
to Strabo, which rises south-west of Scæphus, and
discharged itself into the Propontis, west of Cyzicus.

ÆSAR, Serbía, a river of Etruria in Italy, which, says
Strabo, joined the Arno at Pisa, but its mouth is said to
be ten miles north of that of this river.

ÆSAR, in Mythology, a deity of the Etruscans.
It is said that the letter C was obliterated in the word Cæsar,
annexed to a name of Augustus, the augurs dedicated from
this accident on the part of the statuary, a forrowful pre-
face. As C was a numeral letter, denoting 100, they con-
cluded that he had not 100 days to live: but as the word
ÆSAR was the name of a deity, they thence inferred that he
would be defied after his death.

ÆSARONENSI, in Ancient Geography, a people of
the northern part of Sardinia.

ÆSARUS, Ephe, a small river of Bruttium, which
watered the town of Croton. Ovid (Met. l. 15. v. 23.)
calls it ÆSARUS.

ÆSCH, in Ichthyology, a name by which some have
called the grayling, or tumbling, a fish of the truttaceous
kind, called in Latin Thymallus.

ÆSCHINES, in Biography, an Athenian philosopher of
low extraction, said by some to be the son of Chares, a
fattage-maker, and by others, the son of Lyfaxias.
He discovered an early desire of knowledge, and, though opprest
by poverty, was affable and persevering in the pursuit of
it. With this view he placed himself under the tuition of
Socrates, who was gratified by the respect which was paid
to him by this young and studious, though mean disciple.
Upon first offering himself to the notice of Socrates, he
told the philosopher that the only thing which it was in his
power to present him, in return for his kindness in giving
him instruction, was himself. Socrates replied, that he
accepted and esteemed the present, and hoped to render it
more valuable by culture. He adhered to his master with
unalterable fidelity and constancy, and enjoyed his particular
friendship. Impelled by poverty, he determined to quit
Athens; and after the example of Plato and others, to visit
the court of Dionyfus, the tyrant of Sicily, who was,
at this time, either through vanity or jealousy, a general
patron of philosophers. Upon his arrival in Syracuse,
he was slain by Plato on account of his poverty; but
Arilippus introduced him to the prince, by whom he was
liberally rewarded for his Socratic Dialogues. Pindar,
however, vindicates Plato from this charge, and says that
when he was neglected at Syracuse, the philosopher recom-
mented him to Dionyfus, and engaged for him the protec-
tion and favour of the sovereign. See Plut. Commentarios
de Adulatoris et Amici dixriminatione apud Oper. tom. ii.
p. 67. Ed. Xyland. ÆSCHINES remained in Sicily till the
expulsion of the tyrant, and then returned to Athens.
But fearing to become a rival of Plato or Arilippus, who
were in high esteem, by any public exhibition, he taught
philosophy in private, and maintained himself by the pecu-
liar recompence which he received for his instructions.
Afterwards, in order to gain a more ample indulgence, he
appeared as a public orator. Laertius says, that he wrote
judicial orations for the vindication of the innocent.
Besides orations and epistles, ÆSCHINES wrote seven Socratic
Dialogues in the true spirit of his master, as temperance,
morcellation, humanity, integrity, and other virtues: of
which only three are extant, viz. one concerning Virtue,
whether it can be taught; a second concerning Riches,
whether they are good; and a third, concerning Death,
whether it is to be feared; a fragment of a fourth, on the
Duties of a State of Marriage, may be found in Cicero de
Inventione Rhetorica, l. i. c. 31. They are published by
Le Clerc, with notes and several dissertations, in the
Grec. tom. i. p. 829.) Suidas (in Alex.) and Lucian
(de Paratio. Op. tom. ii. p. 865.) Ed. Reitstii. have given
an account of them. Some have charged him with pur-
loining the works of Antiphon, and with publishing dia-
logues of Socrates, confided with him by Xanthippe, as his
own. This ÆSCHINES, who is a different person from Æf-
chines the orator, is said by Diodorus Siculus (Hist. tom. ii.
p. 62. Ed. Weiseling.) to have flourished about the 105d
Olympiad.

ÆSCHINES, the Orator, was the son of Atronimus, a gram-
mian and schoolmaster, and Clauceother, who is said to have
been a timbrel-player. See Lucian (in Somn. tom. i. p. 17.)
He was distinguished, as Plutarch says (X Orat. Vit. ap.
Oper. tom. ii. p. 840.) neither by his birth nor riches.
In his youth, ÆSCHINES being of a robust constitution, de-
voided himself to the exercises of the gymnasium, and
having a clear voice, he performed a part in the exhibition
of tragedies. Some say that he attended the lectures of
Iocrates and Plato; but according to others, he received
instruction from Alcadas, the preceptor of Gorgias.
His progress, however, was considerable, and he became
a competitor with Democlines; and by his public conduct
incurred his displeasure. When the Athenians negociated
a peace with Philip of Macedon, ÆSCHINES and Democ-
thenes were two of the ten ambassadors employed for this
purpose. On this occasion, it is said that ÆSCHINES was
brisked by Philip, and perfused the Athenians, in opposi-
tion to the remonstrances of Democlines, to confide in the
promises of the sovereign of Macedon. Thus deluded, they
gave this prince an opportunity to posses himself of Ther-
mopylia, and to enter the territory of Phocis. Philip,
being in Syria, and not being able to attend this office by the council of the Amphi-
cions. With this view, he contrived, by intrigue and cor-
ruprion, to engage the support of ÆSCHINES; who, in a
steadied oration, prevailed with the deputies of the Greek
cities, assembled in the council of the AmphiCions, to
elect him for their general, and to invest him with full
power to act as he should think proper. By this artifice
Philip got possession of Elates, the chief city of Phocis,
and thus established himself in a situation the most favour-
able for the execution of his farther designs. Democlines
exerted all his powers of eloquence to route the Athenians,
and to induce them to unite with the Thebans in disco-
certing the machinations of Philip. His eloquence was
effectual, and the two hostile armies encamped near Che-
rona, a city of Boeotia. The wisdom and force of Philip
prevailed, and Democlines, being left a warrior than a
statesman, and being more capable of giving counsel in his
harangue, than of enforcing and supporting it by intrepid
earnest, threw down his arms, and fled with the other
discouraged troops. The shock which Athens received at
this time, the effect of which it was never able to recover,
was ascribed to Democlines; and ÆSCHINES took the lead
in criminating his rival; and he, accordingly, drew up an
accusation against Ctesiphon, or rather against Democlines.
The conflict between these two orators excited very general attention, and the two orations that were delivered by them have always been considered as the masterpieces of antiquity, especially that of Demosthenes, which is more powerful and impetuous than that of Aeschines. The letter left behind, and was sent to the hencourt for his release from prison. Upon this, he settled at Rhodes, where he opened a school of eloquence, the reputation of which in Oratory for many ages is admitted. He is said to have commenced his lectures with the two orations that had occasioned his imprisonment. That of Aeschines himself was received with applause; but when the audience heard that of Demosthenes, their plaudits were redoubled. On this occasion, Aeschines declared, with a candour and liberality highly honourable to himself as an enemy and rival, *What an orator would you have heard, if you had heard Demosthenes speak it himself?* Plutarch and Philostratus, *ubi supra.* When Aeschines left Athens, in order to embark for Rhodes, Demosthenes ran after him and obliged him to accept a purse of money; upon which Aeschines exclaimed, *How will it be possible for me not to regret a country, in which I have an enemy more generous than I can hope to find friends in any other part of the world!* From Rhodes, Aeschines removed to Samos, and there he died, at the age of 75 years. Some have said, that Aeschines was the first who delivered extemporaneous orations, a practice which others have ascribed to Gorgias. Philostratus extols him for his fine peripety, decorous gravity, and distinguished energy; and he is denominated by Demosthenes *μεγάλων σοφίων.* Quintilian, comparing him with Demosthenes, says of him, *In slant. Orat. l. x. c. i. tomt. ii. p. 901. B. Bumann.* Plinio Minor Aeschines, et magis *fujus, et grandiori similis, quo minus *śtudis est: carnis tamen plus habet, lacteorum minus.* Photius ascribes nine epistles (according to the number of the muses) to Aeschines; but there are twelve, which were addressed to the Athenians when he was an exile at Rhodes, in Wolius's edition of Demosthenes and Aeschines, *p. 205*; and Taylor has added them to his edition. The ancients acknowledge only three genuine orations, viz. 1. *Aeschyli Timarchum* (Wol. Ed. p. 259.) Timarchus was his accuser, and it is said that in consequence of the reproaches of Aeschines he laid violent hands on himself. 2. *De fidel. Legatione,* (Ib. p. 395.) This is an apology for himself against Demosthenes, who had accused him of perjury in an embassy to Philip. 3. *Aeschyli Cleopatra,* (Ib. p. 425.) who decried the golden crown to Demosthenes. Fabricius compares these orations to the three graces. Another oration, intituled *Achilleon,* was formerly ascribed to Aeschines; but the ancients ascribe it to another person of the same name. See Plutarch and Philostratus, *ubi supra.* Demosthen. et Aeschin. Opera, by Wolius Francon. 1604. Fabricius. Bibl. Græc. tomt. i. p. 412—428, &c. *Laertius,* (tom. i. p. 118. tomt. ii. p. 107. Ed. Melb.) mentions several other persons, called Aeschines; and this identity of name has occasioned so much confusion in the history of the persons, and particularly with regard to the Socratic philosopher and Athenian orator, who are the subjects of these articles.

**ÆSCHNIA, in Entomology, the name of a species of water-fly, of an ash-colour, with four wings, and a long body, hairy near the tail.**

**ÆSCHRION, in Biography, a fellow citizen, and one of the traders of Galen, by whom he is mentioned with respect. He had great faith in a medicine he invented against the effects of the bite of a mad dog. The following is the prescription, and it is, without doubt, as efficacious as the famous composition recommended by Dr. Mead.** *Take of the ashes of lobsters, burnt alive in a copper vessel, ten parts; of gentian, in powder, five parts; of juncaria, one part; mix them, and let the patient take a spoonful in a glass of water every day, for forty days. There are some idle ceremonies directed to be observed in making the powder, which are here omitted.*

**ÆSCHYLUS, in Geography, a town in Switzerland in the Canton of Bern: two leagues south-east of Spiez.**

**ÆSCHYLUS, in Biography, the famous tragic poet, was born at Athens, in the last year of the 643 Olympiad, or the 542th year before Christ, according to the Arundelian marble, on which Stanley, in his notes on the life of this poet, relies. He was the son of Euphorion, and distinguished by his military valour as well as by the exercise of those signal talents, which intitle him to the appellation of the father of tragedy.**

At the battle of Marathon, his brother, Cynegyamus, signalled himself; and, as Herodotus informs us (I. p. 491. Ed. Weffel.) laid hold of the prow of one of the Persian ships with his hands, which were cut off by an axe, so that he died of his wounds: and his youngest brother Aminis, says Diodorus Siculus (I. xi. p. 426. Ed. Weffel.), who had the command of a squadron of ships, conducted himself with such skill and bravery, that he sunk the admiral of the Persian fleet, and gained distinguished honour. In these battles, as we learn from Paunianias (I. p. 35. Ed. Kuhnii) as well as in those of Platea and Artemision, he was present; and we are assured that he acquitted himself with honour. But his principal attention was directed to the composition of tragedies and the improvement of the stage. Paunianias informs us (I. p. 49.) that he was admonished by Bacchus, when a boy and asleep in the field, to write tragedies; and that when he awoke he made a trial and succeeded.

His mind was naturally strong and ardent; and the austerity of his character was manifested by his silence and gravity. From his youth he had been accustomed to the lesons of those poets, who, living near to the heroic times, conceived ideas corresponding in sublimity to the illustrious deeds that were then achieved. In the history of those remote ages he beheld every where the impress of grandeur, and frequently that of ferocity. In order to bring scenes of this kind to view, and to exhibit, as it were, before the eyes of the spectators the time and place, and various circumstances of events, Æschiílus employed all the resources of theatrical representation; and thus the illusion became a reality. Sufarion and Theopis, and Phrynichus, the disciple of the latter, had proceeded but a little way. Theropis indeed had introduced a single action, and Phrynichus selected that kind of verse which is most suitable to the drama, and made some other changes; nevertheless tragedy was in its infancy before the time of Æschiílus. In his first tragedies he introduced a second act; and, afterwards, copying the example of Sophocles, who had just entered on his theatrical career, he admitted a third, and sometimes even a fourth. By thus multiplying persons, one of his acts became the hero of the piece, and possessed the principal interest; and as the chorus was now held only a subaltern station, Æschiílus abridged its part. He is cautioned for having admitted mute characters into his drama; but it has been suggested that the veil which covered them and the silent grief which they manifested, produced a more sensible effect than any lamentations and tears. What he has said of his hero Hippomedon (Sept. Contr. Theb. v. 506.) may be applied to himself:

"— Before him strides
Gigantic terror, tow'ring to the skies."
And yet he knew how to set bounds to the emotions which he earnestly laboured to excite, and conjointly avoided polluting the stage with blood; for he wished to produce scenes that should be terrible but not horrible. He rarely excites pity or tears, either because he was naturally deficient of a very delicate sensibility, or because he did not wish to render his auditors effeminate. An ingenious author (See Anacharsis's Travels in Greece by the Abbé Barthélemy, vol. vi. p. 10, &c.) has examined the manner in which Æschylus has acquitted himself in the different parts of tragedy, viz. in the fable, manners, sentiments, diction, decoration, and music. His plots, says this writer, are extremely simple; and he sometimes interests us merely by the recital of facts and the vivacity of the dialogue (in Sept. contr. Thel.) and at other times (in Suppl. and Eumen.) by the vigour of his style, and the terror of his scenes. In his estimation theunities of action and of time were essential, but that of place lefs necessary. His chorus makes a part of the whole. It is the comforter of the wretched, the counsellor of kings, the terror of tyrants, and the confident of all. Sometimes it participates in the action during its whole continuance, as in Suppl, and Eumen. The character and manners of his personages rarely fail in suitableness and consistency. He usually wrote his models from the heroic times, and sustains his characters at the elevation to which Homer had raised his heroes; and it should be recollected that he wrote in the time of the Persian war. As he inclines more to excite terror than pity, he seeks only to render his characters more furious, but without injury to the theatrical interest. See the character of Clytemnestra, in Agamemnon; and particularly v. 1571, 1445, 1404, 1411, 1398, 1506.

In his time no other style was known for heroic composition, but that of the epopoeia and of that of the dithyrambic. As they suited the elevation of his ideas and sentiments, Æschylus, without enfeebling them, referred them to tragedy. Huddled away by an enthusiasm, which he was unable to govern, he lavishes epithets, metaphors, every figurative expression of the emotions of the soul, and whatsoever may give weight, strength, and magnificence to language, or animate and render it impassioned. Beneath his vigorous pencil, narrative, sentiments, and maxims, are changed into images, which are striking for their beauty or singularity. Of a man of comfiderable prudence, he says, (Sept. contr. Thel. v. 599.)—"He reaps those sages and generous resolutions, which spring in the deep furrows of his soul," and he thus warns a few people early to watch over the conduct of a citizen dangerous from his abilities and his riches; "Beware how you nurse up a young lion, how you caress him while he yet fears you, or how you reft him when he is grown a stranger to fear." And yet these shining passages are sometimes accompanied by an obscurity, which arises not only from his extreme conciseness and the boldness of his figures, but also from new words and phrases with which he affected to enrich his style. The style of Æschylus is in general noble and sublime; in certain parts grand to excess, and pompous to inflation; but sometimes degraded and distorting by ignoble comparisons, a puerile play on words, and other defects which are common to this author, with all those who poise more genius than taste. But notwithstanding his faults, he merits a distinguished rank among the most celebrated poets of Greece.

Æschylus adapted the dress of his characters, and the decorations of the theatre, to those impressions of grandeur which he wished to produce on the minds of the auditors. As nature had given to heroes a lofty stature and impressed a majesty on their persons which commanded respect, Æschylus raised his actors on high thrones or desks; he covered their features, which were often irregular and disagreeable, with a mask; he clothed them in flowing and magnificent robes, such as the priests of Ceres have not blushed to adopt. The inferior actors were also provided with masks and dresses suited to their parts. He also obtained a theatre, furnished with machines, and embellished with decorations. Here the sound of the trumpet was reverberated, the incense was seen to burn on the altar, the shades of the dead to arise from the tombs, and the furies to rush from the gulps of Tartarus. At the sight of some of the dreadful spectres which he contrived, and the sound of their hideous howlings, it is said that terror seized on the whole assembly, women miscarried, and children expired with fear; and the magistrates were under a necessity of issuing orders, that the chorus should confound only of 15 actors instead of 50.

Æschylus paid particular attention to the performance of the actors, regulating their steps, and directing them to give additional force to the action, by appropriate and expressive gestures. He also instructed them more effectually by his example, as he performed with them in his pieces. Besides, he employed a person, called Teleles, who had brought the art of gesture to such perfection, that in the representation of the seven chiefs before Thebes, he performed with so much truth and expression, that his action might have supplied the place of words. See Athenaeus Depnonophis, l. i. p. 22. Ed. Cæsare.

Æschylus also applied to tragedy the lofty modifications and impetuous rhythm of certain airs calculated to excite courage, without adopting those innovations which began to disfigure the ancient music. His choral chant is full of grandeur and decorum, and constantly in the diatonic genus, which is the most simple and natural of all.

Quintilian (Inst. Orat. l. i. c. 1. tom. ii. p. 897) gives the following character of Æschylus, as a writer: "Tragedia primus in lucem Æschylus prodit, fabulam et gravitas, & grandioquant sepe uige ad vitam, sed radiis in pluribus & incompositis, &c." Longinus (Ed. Pears, p. 99) says, that he had a noble boldness of expression, and that his imagination was elevated and heroic. Some have affected that he never composed but when he had drunk freely; and by others he has been compared to Shakspeare for energy of sentiment and style, as well as for the expression of character and passion by the happy use of trivial circumstances. Horace describes the character of Æschylus in his Ars Poet. v. 282, &c.

"Polf hunc perfone, paludeque repertor honetis, Æschylus, et modicum intravit pulpita tignis, Et docuit magnanime loqui nuptis cuthano."
Ed. Gronov.), that Aeschylus was charged with impiety by the Athenians, and condemned to be floned to death. The ground of the charge is not that which Herodotus and Paufanias have supposed, viz. Aeschylus's adopting the theology of the Egyptians rather than that of the Greeks, and presuming to say that Diana was the daughter of Ceres and not of Latona: but more probably that which Clemens Alex. has stated (Strom. I. ii. oper. tom. I. p. 457; Ed. Poterius.) that Aeschylus, being himself untrammelled, profaned the mysteries by exposing them in one of his dramas on the stage. However this be, the Athenians were preparing to execute the sentence that was pronounced against Aeschylus, when his brother Aminias drew aside his cloak and presented his arm without a hand, which he had lost at the battle of Salamis, in defence of his country. This sight interested the compassion and honour of his judges, and induced them to revoke their decree and to pardon Aeschylus.

Plutarch (in Cimon. op. tom. I. p. 485.) says, that Aeschylus, being disqualified with the preference given to Sophocles in the contest for the prize of poetic merit, abandoned his country and went to reside in Sicily. There Hiero distinguished him with benefactions and honours: but he soon died, at the age of 69 years, ante Christ. 436. Pliny informs us, (H. N. i. x. c. iii. tom. I. p. 547.) that whilst he was walking in the field, in order to avoid a danger of which he was forewarned, with respect to the mode of his death, an eagle, hovering over him in the air, let fall a tortoise upon his head, for the purpose of breaking the shell, which instantly killed him. The following epitaph, composed by himself (for the original of which see Paufanias, p. 37. Ed. Kuhnii.) was engraved on his tomb:—

Here lies Aeschylus, the son of Euphoron, born in Attica. He died in the fertile country of Gela. The Persians and the woods of Marathon will forever attest his valour. At the time when he wrote these lines, he was unquestionably distinguished with literary fame, and knew no glory more illustrious than that of arms.

The Athenians decreed honours to his memory; and authors who have intended to dedicate their talents to the theatre, have gone to offer libations, and to recite their works at his tomb. There are seven of his tragedies extant, of which the best edition is the folio of Thomas Stanley, published in 1663, with a Latin translation and learned Commentary. There have been many other editions, and also translations (See Fabric. Bibl. Græc. tom. I. ii. c. xvi. p. 602—618.) of these tragedies: Potter's translation, published in 1670, at London, 1777; and afterwards in 2 volumes. 8vo. delays to be particularly mentioned. Stanley, in his Life of Aeschylus, has mentioned several other persons of the same name.

Aeschynomene, formed of αρχηγός, to be amazed, because it retreats from the touch; διάφθειρα, a noisy plant, in Botany, a genus of the diastrophus decidua class and order; and of the natural order of papilionaceae or leguminosæ: the characters of which are, that the calyx is a one-leafed, bell-shaped, fimbriate with equal lips, upper bifid, and lower three-toothed perianthium; the corolla papilionaceous, with sub-cordate, scarcely gaping, large banner, subovate, obtuse wings, shorter than the banner, and lunate, acuminate keel of the length of the wings: the stamens have 10 filaments, single and nine-cleft, and small anthers: the pistillum is an oblong, villous, columnar germen, the style fimbulate and rising, the stigma simple, rather obtuse: the pericarpium is a long, flat, jointed, rough, one-celled legume, opening at the truncate joints; the seeds are solitary, between the joints, and kidney-shaped. Martyn enumerates twelve species, viz. the grandisflora, arboria, coerulea, afpera, americana, indica, sjahan or Egyptian, pulvus or dwarf, fes- flata, heterophylus, leguminaria, and cannadina.

The til is a shrub, from 10 to 15 feet in height, a native of the East Indies, cultivated in Jamaica, and in England by Miller, in 1768. The seeds are agreeable to domestic birds,—The 2d grows to the height of six or seven feet, with a single stem, and bears large and copper-coloured flowers,—The 3d is a native of the East Indies, and of the islands Otaheite and Huahine in the South Seas.—The 4th is a native of the East Indies.—The 5th is somewhat sensitive: during the night, and at the approach of rain, the leaves fold together. It is a native of Jamaica, and was cultivated in 1739 by Miller.—The 6th is a native of the East Indies.—The 7th is a native of Egypt, was cultivated in 1685, in the botanic garden of Oxford, and flowers in July and August.—The 8th is a native of the East Indies; and the 9th, of the West Indies.—The 10th and 11th are natives of Cochin China.—And the 12th is a native of the East Indies, which may be treated as hemp and used for the same purposes. The first is with difficulty preferred through the winter in this country. The 2d, 3d, and 7th, may, like the first, be preferred through the winter in a warm house, will flower early in the following summer, and their seeds will ripen in the autumn: they must not be kept dry in winter, or else they are subject to rot. The 4th, 5th, 6th, and 8th species, are annual, and must be brought forward early in the year, otherwise their seeds will not be perfect. All the sorts are propagated by seeds, which may be sown on a hot-bed early in the spring; and when the plants are strong enough to be removed, they should be put each into a separate small pot, filled with light earth, and plunged into a fresh hot-bed; and as they advance in growth, they should be shifted into larger pots; but care should be taken that the pots be not too large, which will prevent their thriving.

Aeschynomene plants, among Botanists, are those properly called Sensive plants.

Aesculanus, Æres, or Æris, in Antiquity, are different names given to the divinity who presided over the coinage of copper money. This Æsculanus, it is said, was the father of Argirinthus, because copper was employed before silver; and Argirinthus, the father of Aurinthus, because gold money succeeded silver; and thus they had three divinities presiding over the coinage of the three principal metals. On some medals of the emperors there are found three godesses, represented with balances, a curnotopsis, and near them a piece of the different metals.

Aesculapius Augustus, in Zoology, the name of a harmless species of serpent, common in Spain and Italy, called also Parâna. The color euscolapij of Linneus has white and black bands, which are bicolored by a white ring, and is found in both Indies.

Aesculapius, in Aelthnomy, the ancient name for the constellation Ophiucus.

Aesculapius, Æsculapius, and as Paufanias calls him Æēsopeus, in Mythology, the god of medicine, was the son of Apollo, by the nymph Coronis, born at Epidaurus, and educated by Chiron, the preceptor of Achilles, who taught him to cure diseases of the most dangerous and desperate kind, and even to raise the dead. The history of Æsculapius, like that of other deified heroes of antiquity, is involved in great obscurity, and many absurd and incredible stories are related concerning him. If we regard the reports of the people of Epidaurus, which is said to be the place of his nativity, as Paufanias has represented them; (I. ii. c. 26. p. 172. Ed. Kuhnii.) a shepherd, having lost
left his dog, and one of his steers, found them on a
neighbouring mountain, near a child who was alone with
an extraordinary repinedence, and whom the goatlecked,
and the dog guarded. This child was Æsculapius. As
he advanced in age and acquire, he dedicated his days to
the relief of the unhappy. The most dangerous wounds
and maladies yielded to his operations, his remedies, his
harmontious songs, and the magical words which he
employed. The gods, it is said, pardoned him his success;
but as he dared to call the dead to life, Plato complained,
and Jupiter struck him dead with a thunderbolt.
See Pindar. Thyr. l. iii. v. 10. 92. p. 196. 7. W. Well.
Plin. ii. N. l. 29. tom. ii. p. 495.
It is added, that Æsculapius was the disciple of Chiron,
and having been enticed with the secrets of his master,
he communicated them to his sons Machaon and Po-
dalirius, who, after his death reigned over a small city
in Thessaly. During the siege of Troy, they signa-
lized themselves by their courage in the field of battle,
and by their skill in the treatment of wounds (Homer ii.
l. ii. v. 750. l. iv. v. 219. l. ix. v. 832.), the only part of
the medical art that was much known in those remote ages.
The children of Machaon, who was killed under the walls
of Troy, followed the profession of their father, and
settled in the country. They raised altars to their grandfa-
ther, and revered the fame honours themselves by the
services which they rendered to the human race. See Paufa-
The founder of so respectable a family soon became the
object of public veneration, though his advancement to the
rank of gods must have been posterior to the time of Ho-
er, who only speaks of him as a simple individual.
In process of time divine honours were every where paid to
him. At Epidaurus he had a famous temple, in which his
statue, made of gold and ivory, by Thrasymedes of Paros,
was placed on a throne of the same materials. It was
crowned with rays and a knotty sickle in one hand, and
stretching out the other arm over a serpent, which seemed
to raise itself up in order to reach it; and a dog lay at
his feet. The Epidaurians instituted festivals and games,
which were at first annually, (Plat. in Ion. tom. i. p. 530.
Ed. Serrani.) and afterwards once in five years celebrated
in honour of him. From Epidaurus his worship passed to
the other cities of Greece, and even to distant countries.
In all his temples votive tablets were hung up, on which
were recorded the diseases cured by his assistance. This
god was brought to Rome, by order of Apollo, when a
pestilence raged in that city, in the times of the republic,
under the confudele of Posthumus Megellus and C. Junius
Brutus. About the year of Rome 462, the Sibylline
books were consulted, and an embassy was appointed to
bring the god from Epidaurus to Rome, who is said to
have stolen away from his old worhippers under the form of
a serpent; and on his arrival, to the great joy of the people,
the plague ceased. On this occasion altars were erected
along the banks of the Tiber, and numerous sacrifices were
offered to the new deity. The Romans desired to erect a
temple in honour of him, within the walls of the city; but
the god who resided in the vicinity of Epidaurus, and not
within the city, is said to have chosen his abode in the
midst of the Tiber, on an island formed in the infancy of
the republic by the Avon, trees, sand, and the rubbish of the city.
Thither the serpent retired, and from that time the island
was called the island of Æsculapius, and a temple was
erected in the form of a ship, to which, as to the temple of
the god of health, the common people frequently repaired.
The sick were restored to health, and in token of gratitude
offered a cock to Æsculapius. Of this temple there were
some remains in the 16th century, near the church of St.
Bartholomew, in the island of the Tiber. From this time
Æsculapius was honoured at Rome as one of the chief of
their gods. On coins, &c. he is crowned with laurel,
in token of his descent from Apollo, and he is represented
with a mild aspect, with hair and beard not unlike those of the mild Jupiter; his right arm is bare, in order to
describe his readiness for any operation; his left holds a
flick, with a serpent twisted round it. He is sometimes
seen accompanied by his wife Hygeia or health, with their
son Telphorius, or convalescence, between them. The cock
and cock have been reputed sacred to this deity on account
of their vigilance; and the raven for his forcast.
l. ii. p. 171. Ach. x. vii. p. 592, &c. Ed. Kuhnii.—Ci-
mentions three deities called Æsculapius; the first the son
of Apollo, worshipped in Arcadia, who invented the probe
and bandages for wounds; the second, the brother of the
second Mercury, killed by lightning; and the third, the son
of Arifippus and Arionoe, who first discovered the art of
tooth-drawing and purging.
Those who trace the origin of medicine, as well as the
other arts and sciences, to the Egyptians, ascribe the invention
of it to Teforthus or Seoforthus, a king of Mem-
phis, and the second of the third dynasty of Manebe, who
was called Æsculapius on account of his great skill in that
art. This prince was much more ancient than the Grecian
Æsculapius, and though Africanus places him some years
after Athisius, the successor of Menes, supposed to be the
fame with Thoth, or the first Hermes, yet others make
them contemporaries, as they must have been if this
Æsculapius was the fame with the son of Sydys and the brother of the Cabiri.—An. Un. Hist. v. i. p. 246.
8vo.
ÆSCULUS, Horae-Chiefnt, in Botany, a genus of the
beptandria monogynia chaff and order, of the natural order
of tributae, and the acera of Jufien. It is the hipoepfu-
num of Tournozor, and the paria of Boerhavae. The name æc-
clus is derived from efa, food; and the old names of hip-
pocapsum and capzaca equina, from the limulids of the fruit
to that of the chestnut, and from its being given to horses.
Its characters are, that the calyx is a one-leaved, ventricof-
se, full and five-toothed perianthium: the corolla consists of
five roundish petals, plaited and waving about the edge,
flat, spreading, with narrow claws, infented into the calyx,
and irregularly coloured; the stamina have flabulate, declin-
ing filaments, of the length of the corolla, and ascending
anthers: the pistillum is a roundish gem, ending in a flub-
ulate style; the stigma acuminate: the pericarpium is a
leathery, roundish, three-celled, three-valved capsule: the
seeds are two and sub-globose. Van Royen de Necker and
Miller observed both hermaphrodite and male flowers in this
genus. There are three species, viz. the Æ. hippocapsum,
or common horae chiefnt; the leaves of which are digitate,
with seven entire leaflets, and prickly capsules; the Æ. flava
or yellow-flowered horae-chiefnt, with leaves digitate or
with five leaflets, the laminas of the corolla coriace roundish,
and the claws twice the length of the calyx; and the Æ. paria,
or scarlet horae-chiefnt, which has flowers with eight fla-
mata, digitate leaves with five or six serrate leaflets, smooth
capsules,
capillary, laminae of the corolla clorate, and claws of the length of the calyx; and the "Alth. parvula, with a long thick style, and a style by linkage.

The "Alth. porphyrophylla" was brought from the northern parts of Asia into Europe about the year 1729, but not to Vienna about the year 1558. From Vienna it was conveyed to France and Italy; but it came up from the Valt. It is distinguished by the beautiful parabolic form of its branches, the disposition and structure of its digitate leaves, and by the pyramidal branches of its white flowers, variegated near the centre with yellow or red. Although this tree is now left in the city for avenues and walks than it formerly was, on account of the early decay of its leaves, it affords an excellent shade; and the flowers of which appear in May, with the intermediate mixture of large leaves, exhibit a noble appearance. The most eligible situation for these trees is in lawns and parks, where they may be planted singly, and where their fruit will be serviceable to the deer, who are fond of it. This tree is of quick growth; and in a few years it will afford a good shade in summer, and yield plenty of flowers. Trees, raised from nuts, have in 12 or 14 years become large enough to shade two or three chairs with their branches, which in the faun are covered with flowers. But the trees are of short duration, and the wood is of little value. It serves, however, for water-pipes, turner's ware, and fuel; and for these uses it is worth the charge of planting, and should be filled in November or December.

The common horbe-chefmunt is propagated by fowing the nuts, after preserving them in sand during the winter, in order to prevent their rotting early in the spring. In this cafe the plants, in a proper soil, will fow about a foot the first summer; and they may be transplanted, either in the following autumn, or in February and March, into the nurfery, and set in rows at the distance of three feet, and one foot alder, where they are to remain two years; and they will then be fit for planting where they are to continue. The most favourable soil for them is a sandy loam, inclining to moisture. The whole fhot of this tree is completed in lefs than three weeks after the buds are opened; and as soon as the flowers are fallen, the buds for the succeeding year are formed, which continue fwellling till autumn, when they are overfressed with a thick tenacious juice, that defends the tender buds from the winter froid; and on the return of warmth, the juice melts and runs off; and the buds are left at liberty to extend themselves. Of this tree there are varieties, with gold and silver friped leaves, which are irrited by layers, and by budding or ingrafting them upon flocks of the common fort.

In Turkey the nuts of this tree are ground and mixed with the provender for their horses; especially those which are troubled with coughs, or are broken-winded; in both which disorders they are reckoned very good. M. Raimont, of Anjou, gave them, mixed with other food, to his cows; and they increased the quantity of milk, without injuring its quality; and he apprehends, that if they were blanched and rafed, or otherwise prepared, they might be used to hogs and poultry. Memoirs of the Royal Society of Agriculture at Tours, vol. i. p. 121.

In Jac. Zannichelli informs us, that after many trials he has found the bark to have the fame effect, as the Peruuvian bark; and Dr. Fuchs, teacher of medicine in Leips, has prepared from the ripe fruit, ferved of the husks, an extract, which, according to his experiments, may be used, perhaps, instead of the expensive extrematium obinse. Its good effects, as a febrifuge, have been confirmed by many writers.

The horbe-chefmunt has been employed in France and Switzerland for the purpose of bleaching yarn; and it is recommended in the Mem. of the Society of Science, vol. ii. part 2, as capable of extensive use in whitening not only flax and hemp, but silk and wool. It contains an astringent pungent juice, which is obtained by peeling the nuts, and grinding or rapping them. They are then mixed with hot rain or running water, in the proportion of 20 to 25 or 12 quarts of water. Wove caps and stockings were filled in this water, and took the dye extremely well; and successful trials were made of it in filling stuffs and cloths. Linen washed in this water takes a pleasing light fky-blue colour; and the filaments of hemp, steeped in it a few days, were easily separated. The Author of the memoir above referred to, imagines, that if the meal of the chefsnuts could be made into cakes or balls, it would answer the purposes of soap, in washing and filling. The sediment, after infusion, loses its bitter taste, and becomes good food for fowls when mixed with bran. The Edinburgh College have admitted the horbe-chefmunt into their Pharmocopoeia of 1783, on the recommendation Dr. Gardner, who says, that three or four grains of the powder fluffed up the nostrils in the evening, operates next morning as an excellent remomtary, and thereby proves very beneficial in obfinate inflamations of the eyes. A patent was granted in 1796, to Lord W. Murray, for his discovery of a method of extracting flicarnch from horbe-chefmuts. See Starch.

The 2d species, or yellow-flowered horbe chefmunt, is a native of North Carolina, was cultivated with us in 1764, and flowers in May and June.

The 3d species, or scarlet horbe-chefmunt, rises to the height of 20 feet, without much extending its branches; its bark is smooth, and the leaves, which are opposite, on long red petioles, are of a light green. The flowers, which are produced from the ends of the branches upon long naked peduncles, are much smaller than the common fort and wholly red; they appear in June, and are sometimes succedeed by fruit in England; but the seeds rarely ripe here. It grows naturally in Brazil, Carolina, Florida, Japan, and several parts of the west; and was cultivated with us in 1712. This tree may be propagated by the nuts, which must be procured from the countries where it grows naturally. They must be sown in pots early in the spring, and the pots should be plunged in a moderate hot-bed, and towards the end of May into the ground in a south-east border; and in dry weather the plants should be watered, and covered from early frosts. In the following spring they should be planted at the distance of a foot from each other, in a sheltered situation, and in the succeeding winter sheltered from cold by some light covering. The common method practised by the nurvermen, who propagate this tree for sale, is to graft or bud it upon stocks of the common horbe-chefmunt; but as the stocks greatly outgrow the bud or graft, the trees make a bad appearance, nor do they last long. Martin.

AESPUS, in Ancient Geography, a river of Myia, which Strabo (l. 12. t. ii. p. 847) on the authority of Homer, makes the boundary between Myia and Troas. See ASPUS.

ASERNIA, in Ancient Geography, Scarnus, a town of the Samnites, which was a Roman colony belonging to the Caracini between Asculum north, and Dovianum south, but it was not far from the river Volturno. Silvus Italicus (l. viii. v. 56) refers to it; and the appellation Scarnus of the Priene (l. iii. 1. 12. 2) is derived from it.

ASHNA, in Entomology, a sub-division of the Unogera, or fifth class of insects, by Fabricius, comprehending several species of the Libellula of Linnaeus; characterized by
equal laciniae or fringes of the lip. The species are,
1. L. or *x. minuta*, with a yellow abdomen, two black lines,
hinder wings yellow, and two black spots, found in China.
2. *x. clavata*, with a elevated abdomen, gibbous base,
and body variegated with brown and green, found in China.
3. *x. caudata* or *vegata*, with two yellow lines on each
side of the thorax, and a black spot at the base of the
wings, found in Terra del Fuego. 4. *x. grunnilis*, with four
yellow lines on the thorax and variegated body, found
near the waters of Europe, and in the Sandwich Islands. 5.
*forespatia*, with a black thorax, various yellowish marks,
and uncinated tall, found in Europe.

ÆSTICA, in *Ancient Geography*, is supposed to have been
the present village of Netterby in Cumberland.

ÆSTIS, *Efts, Funimiaus*, a small river of Italy,
that separated the Semoons from Picenum, and emptied itself
into the Adriatic sea, near Ancona. See Sil. Ital. lib. viii.

ÆSTISIUM, a town of Italy, belonging to the Umbrans.

ÆSITÆ, a people of Arabia Deserta, placed by Pto-
lemey below the Cutchabeni.

ÆSTUM, called also Æstis, a town of Umbria in Italy,
attuated upon the western bank of the Æs, which was
the common boundary of Umbria and Picenum. In after-
ges it received a Roman colony.

ÆSNECY, in *Laws*, denotes priority of age among
coparceners.

ÆSOLA, or ÆSULA, in *Ancient Geography*, a town of
Italy, near the Tiber and not far from Pedum. It was
situated upon a hill between the Tiber and Tremonie; and
according to Livy, who speaks of *Arx Eplonius* (l. xxvi.
c. 1. iii. p. 1069, Ed. Burman.) it was a fortified place.
It is mentioned by Horace (l. iii. od. 27.) and by Pater-
culus (l. i. c. 14.) as a colony; and Pliny also (l. iii. c. 9.)
speaks of the Ætolian in his time, though no vestige of
them now remains.

ÆSON, a town of Thessaly, founded by Æson, the
father of Jason; and also a river of Thessaly towards Magna-
edia, near this town.

ÆSONA, or *Isfona*, a town of Spain, between the
rivers Siconis and Nuceria.

ÆSOP, in *Biography*, a native of Phrygia, who
lived in the time of Solon, about the 513 or 523 odempiad,
the first year of which coincides with the 52674 before Chrift,
and during the reign of Crethus the last king of Lydia.
His condition was that of a slave, and his perfon was so
deformed, that one of his masters found great difficulty in
disposing of him, as every one who saw him was shocked
at the unlightedness of his figure. He is also said to have
been for a considerable time without the use of speech.
His mental talents, however, compensated for his bodily
defects, and commanded attention and respect notwithstanding
the meanness of his condition. His first master was Demarchus, an Athenian, in whose service he is sup-
poed to have acquired his purity in the Greek tongue.
From him he was transferred to Xanthus, a Samian philo-
opher; and he was sold by Xanthus to Idam, who was
likewise a Samian, and who granted him his freedom on
account of his extraordinary abilities; others say that he
became free by the favour of Rhodope, a celebrated
courtzean. Having obtained his liberty, Æsop acquired
very distinguished reputation, and was much esteemed by
Crethus, although in the first interview his deformity made
an unfavourable impression on the mind of the king, who
found the observation of Æsop, on another occasion, legally
verified in his own cafe, viz. that we ought not to consider

the form of the vessel, but the quality of the liquor
which it contains. Phaeus (l. i. fab. 2.) informs us that
he made several voyages into Greece, either for his own
pleasure, or upon the affairs of Crethus; and being at
Athens soon after Divydis had usurped the sovereignty
and abolished the popular government, and observing the
impotence of the Athenians under this new yoke, he repeated
to them the fable of the frogs who demanded a king from
Jupiter. In order to account for the miseries of human
life, Æsop used to say, that when Prometheus formed man
of clay, he tempered the materials with tears. As to the
time of Æsop's death, Eusebius and Sulidas refer it to the
54th odempiad, but this date is not consistent with the
occasion to which Phaeus ascribes the fable of the frogs;
for Divydis affirmed the sovereignty of Athens in the
first year of the 55th odempiad. In Blair's *Tables*, his
death is fixed to about the year before Christ, 561. The
manner of his death is thus related by Plutarch, in his
trtete de bis qui fero à numine puniuntur, (apud Oper.
tom. ii. p. 556, Ed. Xylandri.) Having gone to Delphos,
by order of Crethus, with a large quantity of gold and
silver, to offer a costly sacrifice to Apollo, and to distribute
a considerable sum amongst the inhabitants, a quarrel arose
between him and the Delphians, which induced him to re-
turn the money, and to inform the king that the people
were unworthy of the liberal benefaction which he intended
for them. The inhabitants of Delphos, thus incensed,
charged him with sacrilege, and having procured his con-
demnation, precipitated him from a rock and occasioned his
death. Apollo punished them for this act of violence with
piliference and famine; and in order to avert these evils, it
was proclaimed in all the assemblies of Greece, that if any
one, for the honour of Æsop, would claim vengeance
for his death, they would给他 satisfaction. A relation of
fammon, a former master of Æsop, preferred himself, says
Hdodorus (l. ii. p. 168, Ed. Weffeling.) and obtained
satisfaction; and thus the Delphians were rescued from the
piliference and famine by which they were distressfed. The
Athenians afterwards erected a noble statue, executed by
Lyfippus, to the honour of this ingenious and learned slave,
in order to let all the people know, as Phaeus (lib. ii.)
observes, that the path of honour was alike accessible to all
mankind; and that it was not to birth, but merit, they
rendered this disinguishing honour.

"Æsop ingentem flatum poiiure Attiic,
Servumque collocauat asterna in habi,
Patre honoris seient ut cuneis viam,
Nec genere tribui, sed virtuti gloriam."

Æsop, it is said, composed his fables, in order to allevi-
ate the hardships of servitude; and it has been generally
supposed that he was the first author or inventor of this
species of composition: and thus Phaeus (Prol. ad lib. i.)
represents him:

"Æsopus auctore quum materiam repicit,
Hanc ego polexi veribus lenaras.
If any thoughts in these Iambics shine,
Th' invention's Æsop's, and the verse is mine."

But Quinciiiiian (Inst. Orat. l. v. c. 111. tom. i. p. 441.)
ascribes the honour of the invention to Heliod, who is known
to have lived 130 years before the time of Æsop:
and he speaks of them as admirably adapted to delight and
captivate the minds, particularly, of the vulgar and un-
formed. Æsop, however, improved this kind of writing,
and adopted a variety of images, which combine the agree-
able with the instructive, and communicate practical pre-
cepts in a familiar and impressive manner. To this purpose

S 5

Aulus
Aulus Gellius (Noct. Att. l. ii. c. 29.) observes, that Æsop,
the fabulist, was deviously educated wife, since he did not,
acquire the manner of the philosophers, rigorously and imperi-
only denote such things as were proper subjects of counsel
and pith, but by forming amusing and agreeable apolo-
gogues he charms and commands attention, and thus infuses
into the mind thoughts that defray consideration.
Many of Æsop's fables have been ascribed to Plutarch,
who lived in the 1st century, and wrote a life of him,
which abounds with an abounding and incredible relations.
Plutarch the Am. Port. Op. tom. ii. p. 16.) Saladin in
and others, inform us, that Æsop's, a little before his
death, translated some of Æsop's fables into verse; and
Ptolemy (De Mor. German. apud Op. t. ii. p. 205.
Ed. Gronov.) as resembling the Suevi in their customs
and manners, and the Britons in their language.
ÆSOPH, in Æsop, in ancient law-books. See
WICK, and WEERLAND.

King Athelstan, in a great assembly held at Exeter, de-
cided what multitudes should be said pro Æsopinlines eipit,
discharge committed against several persons according
to their degrees: the sentence of the king's head to be
thousands, of an archbishop, or patriarch, or prince, 15000.
of a bishop, or a precentor, 8000; of a priest, or a thane,
2000, &c.

ÆSIVAL, or ÆSTIVAL, of or belonging to summer.
Thus, we say, the Æstival Solstice, &c. in opposition
to iternal.

Æstival point is that whereby the sun's ascent above
the equator is determined.

Æstival signs are those extended from the summer soli-
ttional point, &c. the sun's greatest declination northward,
to the intersection of the ecliptic and equinoctial southward,
including Cancer, Leo, Virgo.

ÆSTIVATION, in Botany, a term expressing
the state of the bud in summer, and used by Linnaeus
to denote one of those circumstances which constitute the
habit of plants.

ÆTRIANS, in Ancient Geography, the inhabitants
of a district of Macedonia, the chief city of which was
formerly called Æthriums.

ÆSTUARIUM, a town of Spain, between Noega and
Salia.

ÆSTUARY, Æstuarium, in Geography, an arm of
the sea, running up a good way into the land.

Such is Bristol channel, many of the friths of Scotland,
&c. See BAY.

ÆSTUARY is sometimes also used in Pharmacy, for a
vapour bath, balneum vaporosum.

ÆSTUARY, in the Ancient Baths, was applied to the oc-
cult passages, or openings from the hypocaustum, or flue,
penetrating into the chambers. Pit. Lex. Ant.

To such a passage in the house of Pompeia, Statius refers
(Sylv. lib. i. § 5. v. 58.)

"Ubi languidus ignis inerrat
Ædibus, et tenuem volvunt hypocausta vaporem."

ÆSYMETRIC monarchical, among Ancient Writers
on Government, denotes a limited elective monarchy. Aris.
Pol. c. 10. The word is formed from ἀσύμμετρος, regnum, I
govern. An asymmetric state stands opposed to a barbaric, or
hereditary one.

ÆSYMUMNION, in Antiquity, a monument erected to the
memory of the deceased heroes, by Æsymnus the Megarean.
Upon consulting the oracle at Delphos, how the country
might prosper and enjoy the most auspicious government,
he received for answer, that it would be most likely to
prosper if it followed the counsel of the most numerous;
and underlining the oracle to refer to the dead, he built
this monument and encompassed it with a council-house;
and thus the Megareans hoped to obtain wise and salutary
counsel. See Pausanias Attic. i. i. p. 104. Kuhnii.

ÆTÆLI,
ÆTHÆLI, in Ancient Geography, a people, according to Ptolemy, of Arabia Felix.

ÆTARA, a town of Africa, placed by Ptolemy between the town of Tabarca and the river Axaplaga.

ÆTATE prolunda, in Law, a writ that lay to inquire whether the king's tenant, holding in chief by servitude, were of full age to receive his lands into his own hands. It was directed to the ephor of the county; but is now disused, since wards and liversies are taken away by the statute Car. II. Reg. Orig. 294.

ÆTH, or A, in Geography, a strong little town of the county of Hainault, in the Austrian Netherlands, situated on the river Dender, about 20 miles south-west of Brussels. It had formerly an abbey of nuns, and some good linen manufactures.

ÆTHÆA, a town of Lcconia.

ÆTHALAE, in Natural History, a name given by some writers to the caulina furcatum, or Tutty.

It had its name from its being the concreted root, or vapour of the botis catalinarius, and copper, melted together, in the making of brass.

ÆTHALIA, or Ily, now Etha, in Ancient Geography, an island on the coast of Etruria, about 100 miles in compass, and abounding with iron. It was so called from æthale, smoke, effusing from the fops of Vulcan.

ÆTHALIDÆ, a people of Attica, in the tribe of Leontides.

ÆTALONIES, a town of Myia, caft of mount Ida, and south of Sceps.

ÆTHELING, in British History. See Atheling.

ÆTH, in Physiography, is usually understood to be a thin, subtile matter, or medium; much finer and rarer than air; which, commencing from the limits of our atmosphere, penetrates the whole heavenly space.

The word is supposed to be formed from the verb æth, to burn, to flame; some of the ancients, particularly Anaxagoras, supposing it of the nature of fire.

The philosophers cannot conceive that the largest part of the creation should be perfectly void; and therefore fill it with a species of matter under the denomination of æther.

-But they vary extremely as to the nature and character of this æther.-Some conceive it to be a body sui generis, appointed only to fill up the vacancies between the heavenly bodies; and therefore confined to the regions above our atmosphere. Others suppose it of so subtile and penetrating a nature, as to pervade the air, and other bodies; and permeate the pores and intervals thereof. Others deny the existence of any such specific matter; and think the air itself, by that immense tenuity and expansion of which it is found capable, may diffuse itself through the interstices of space, and be the only matter found in them.

In effect, æther being no object of our sense, but the mere product of imagination, introduced only for the sake of hypothesis, or to solve some phenomena, real or imaginary; authors take the liberty to modify it how they please.-Some suppose it of an elementary nature, like other bodies, and only distinguish'd by its tenuity, and the other affections resulting from it; which is the philosophical æther.-Others will have it of another species, and not elementary; but rather a sort of fifth element, of a pure, more refined, and spirituating nature than the substances about our earth; and void of the common properties of matter, as gravity, &c.—Such is the ancient idea of æther or aetherial matter.

The term æther being thus embarrassed with a variety of ideas, and arbitrarily applied to so many different things, the later philosophers choose to let it slide; and accordingly, the Cartesians use the term materii subtilis, which is their æther: and Sir Isaac Newton sometimes a subtile spirit, as in the close of his Principia; (apud Oper. tom. iii. p. 174. Ed. Holl.) and sometimes a subtile or aetherial medium: as in his Optics. Queries 18—24, apud Oper. tom. iv. p. 223—226. See also his letter to Mr. Boyle, apud Oper. tom. iv. p. 385, &c.

The truth is, there are numerous considerations, which seem to evince the existence of some matter in the air much finer than the air itself. There is an unknown something which remains behind when the air is taken away; as appears from certain effects which we see produced in vacuo.—Heut, Sir Isaac Newton observes, is communicated through a vacuum, almost as readily as through air; but such communication cannot be without some interjacent body, to act as a medium. And such body must be subtile enough to penetrate the pores of glass, and may be very well concluded to penetrate those of all other bodies, and consequently be diffused through all the parts of space; which answers to the full character of an æther. He supposes that it is rarer in the pores of bodies than in open spaces, and even rarer in small pores and dense bodies than in large pores and rare bodies; and also, that its density increases in receding from gross matter, so as to be greater, e.g. at the depth of an inch from the surface of any body than at its surface; and so on.

The existence of such an ætherial medium being settled, that author proceeds to its properties; inferring it to be not only rarer and more fluid than air, but exceedingly more elastic and active: in virtue of which properties, he shews, that a great part of the phenomena of nature may be produced by it. The elastic force of this medium, in proportion to its density, according to his mode of estimating it, must be above 700000 x 700000 times greater than the elastic force of the air in proportion to its density. If, he says, any one should suppose that æther, like our air, may contain particles which endeavour to recede from one another, and that its particles are exceedingly smaller than those of air, or even than those of light; the exceeding smallness of its particles may contribute to the greatness of the force, by which those particles may recede from one another, and thereby make that medium exceedingly more rare and elastic than air; and by consequence exceedingly less able to reflect the motions of projectiles, and exceedingly more able to press upon gross bodies by endeavouring to expand itself. The resemblance of this medium, he supposes, to be very inconsiderable. If this æther should be supposed 700000 times more elastic than our air, and above 700000 times more rare, its resemblance would be above 600000000 times less than that of water; and a resemblance so small would scarcely make any sensible alteration in the motions of the planets in 10,000 years.

To the action of this medium he ascribes the attractions of gravitation and cohesion, the attractions and repulsions of electrical bodies, the elastic force of the air, and of nervous fibres, and the emission, reflection, refraction, and other phenomena of light, the effects and communication of heat; as also sensation, muscular motion, &c. In fine, this same matter seems to be the primum mobile, the first source or spring, of physical action in the modern system.

The Cartesian æther is supposed not only to pervade, but adequately to fill all the vacancies of bodies; and thus to make an absolute plenum in the universe. See Materia subtilis.

But Sir Isaac Newton overturns this opinion, from divers considerations; by showing that the celestial spaces are void of all sensible resistances; for, hence it follows, that...
the matter contained in them must be immensely rare, because the resistance of bodies is chiefly as their density; so that if the heavens were thus adequately filled with a medium or matter, how subtle it ever, they would reflect the motion of the planets and comets much more than quicksilver or gold. The existence of such a fluid-like fluid as ether has been almost universally allowed; and its importance and utility, in the general system of nature, have been very generally acknowledged. Dr. Reid, indeed, seems to have entertained doubts on this subject. He observes, that although Sir Isaac Newton had formed conceptions about this ether near 50 years before he died, and had it in contemplation as a subject of enquiry, during that long space; yet it does not appear that he ever gave any convincing proof of its existence, but considered it to the best as a question, whether there be such an ether or not. Regarding therefore, the authority of Newton himself, he is of opinion that we ought to hold the existence of such an ether as a matter not established by proof, but to be examined by experiments; and he adds, "I have never heard that, since his time, any new evidence has been found of its existence." Dr. Hartley, however, whose system of the mind and its operations is founded on the reality of this ether, alludes, that if we suppose the existence of such a fluid medium, and of its properties, to be definite of all direct evidence, yet, if it seems to account for a great variety of phenomena, it will have an indirect evidence in its favour by this means. To which mode of reasoning Dr. Reid replies, that there never was an hypothesis invented by an ingenious man which has not this evidence in its favour. The votaries of Des Cartes, the sylphs and gnomes of Mr. Pope, serve to account for a great variety of phenomena. Hartley’s Observations on Man, p. 740. Reid’s Essay on the Intellectual Powers of Man, p. 87. Some late writers have described the phenomena of electricity and magnetism to a fluid of this kind, under the denominations of the electrical and magenta fluid; and they have referred to its operation in different circumstances, many of those effects, which are inexplicable without such a fluid, diffused through every part of the material universe. See Electricity, cause of Gravity, Heat, Light, Magnetism, Reflection, Refraction, Sensation, Sound, Vibration, &c.

Æther, in Chemistry. See Ether.

Ætheria, in Ancient Geography, is a name formerly given to Ethiopia, under which appellation, it is mentioned both by Pliny (l. vi. c. 50) and Strabo, l. ii. p. 82.

Ætheria Herba, is a name given to Erinógo.

Ætherial, Ætherius, something that belongs to or partakes of the nature of ether.

Thus, we say, the ætherial space, ætherial regions, &c. Some of the ancients divided the universe, with respect to the matter contained in it, into elementary and ætherial.

Under æther, or the ætherial world, was included all that space above the uppermost element, viz. fire.—This they supposed to be perfectly homogeneous, incorruptible, unchangeable, &c. See Corruption.

The ancient Platonists and Pythagoreans suppose different bodies united with the human soul, viz. the gross, or material one; the finer aerial one; and, thirdly, the soul itself, which they call ætherial, celestial, luciform, &c. This kind of body they conceived peculiarly belonging to such souls after death, as are purged and cleansed from corporeal affections, lusts, and passions. That this division of two interior vehicles, or tumults of the soul, besides the outer vestment of the terrestrial body, was not a mere figure of the latter Platonists since chriuality was introduced, appears plainly from Virgil’s description of the pure ætherial and fancy body, which he distinguishes from the spiritual or any body, in which unpurged souls receive punishment after death. After describing this punishment, he proceeds in this manner:

"Dumque longa dies, perfestus temporis orbis,
Concretam eximia labem, purumque reluctat
Ætherium fenum, atque muralis ignes ignem."


The ground of this opinion seems to have been the notion which these philosophers entertained concerning the pre-existence of the human soul, which, according to their imagination, was invested with a lucid and ætherial body, either from eternity, or the from the first commencement of the habitable world; and which, being coeval with the soul itself, and incorruptible, inseparably adhered to it, in its subsequent lapses and defections, first into an aerial, and then into a terrestrial body; this being, as it were, the bond of union between the soul and them. The Pythagoreans and Platonists, however, were not all of this opinion; for some of them supposed, that, according to the moral disposition of the soul, it always finds or forms a suitable body, correspondently pure or impure; and consequently that, by moral virtue and philosophylv, it might again recover that celestial body, which was lost by its fall and defection into the großer body. See Cudworth’s Intelligible System, b. i. c. 5. vol. ii. p. 788—793. Ed. Birch.

The Chaldees placed an ætherial world between the empyreum and the region of the fixed stars. Befide which, they sometimes also speak of a second æ therial world, meaning by it the starry air: and a third ætherial world, by which is meant the planetary region. Stanley Hift. Phil. 1640.

Ætherial phœnix, is a name generally given, by Bernouilli, to that otherwise called mercurial, or barometrical phœnix.Ætherial oil, is a fine, subtle, essential oil, approaching nearly to the nature of a spirit.

Thus, the pure liquor rising next after the spirit, in the distillation of turpentine, is called the ætherial oil of turpentine.

Some chemists distinguish two principles in urine; the one a volatile urinous fluid, resembling spirit of nitre; the other, an ætherial oil, or sulphur, partaking of the nature of spirit of wine.

Ætherial Heaven. See Heaven.

Ætherius, in Biography, an architect, who lived in the beginning of the 6th century, during the reign of Anaxiandrus I. emperor of the east, who made him a privy-councilor. He built an edifice, named Chalcis, in the palace of Constantinople, and he is supposed to have contrived the strong wall which extends from the sea to Scyria, for preventing the incursions of the Bulgarians and Scythians.

Æthicia, in Ancient Geography, a country, according to Strabo, adjacent to Macedonia, Thessaly, and Pindus, inhabited by the Ethioces.

Æthiop, a name formerly given to the island of Lesos.

Æthiopia, in Geography. See Ethiopia.

Æthiopian crown, in Natural History, the name of a shell-fish, of the genus of the dolium, or concha globula. It is of a brown colour, but differs from the common shells of this genus in having the top or head dentated, so as to represent a crown.

Æthiopis, signifies Ethiopian clary. See also Salvia.
ÆTHIOPS, in Pharmacy, a name given to certain metallic preparations of a dark colour; and though the term is at present superseded, it is yet too familiar to chemists to be wholly omitted. There are four pharmaceutical articles of this name, Æthiops antimonialis, Æthiops martialis, Æthiops mercurii per fer., and Æthiops mercurii per se, and Æthiops mineris.

Æthiops antimonialis, is a combination of the sulphures of antimony and mercury; the old way of preparing it is, to mix together equal parts of common salt and crude antimony, and flux the mafs in a crucible; when cold there will be found a dark scoria, resting upon a metallic looking substance, which is the crude antimony nearly in the same state at first. The scoria being separated, the antimony is to be ground with an equal weight of mercury till they are well united. The first part of this process seems wholly unnecessary, and accordingly the antimonial Æthiops is generally made by triturating crude antimony with an equal weight of mercury. A still more expedient and equally efficacious way of preparing this medicine, is to fuse some crude antimony in an earthenware crucible, and when it is upon the point of freezing, to add to it an equal weight of hot mercury; the mixture immediately becomes more fluid, and after a while becomes solid; when cold it must be levigated in a mortar, and washed. Sometimes, instead of crude antimony, the golden sulphur of this metal is made use of.

The medical effects of antimonial Æthiops are chiefly as a sudorific in small doses, and as a purgative and emetic in larger ones. It has been exhibited with effect in old invertebrate cafes of lues, scrophula, and glandular obstructions, but on account of the irregularity of its action, is now fallen much into disuse. The pills of Æthiops of the late Edinburgh pharmacopoeia, were composed chiefly of mercury and golden sulphur of antimony, but in the last edition of this as well as of the London pharmacopoeia the Æthiops antimonialis is wholly omitted. New Dispensatory, 1765. p. 545.—Lewis's Mat. Med. vol. i. p. 161.

Æthiops Martialis, saporum de Mars de Lemery, is a pure magnetic oxyd of iron, and was first introduced into the materia medica by the younger Lemery; he directs it to be prepared in the following manner. Into a large glass bason put a few pounds of clean unrufted iron filings, then add a sufficient quantity of water to cover them to the depth of five or six inches: this mixture is to be stirred up with an iron spatula, two or three times a day, and fresh water to be supplied in proportion to the evaporation; at the end of five or six months almost the whole of the iron will be converted into a black fine powder which remains suspended in the water for some seconds after agitation. The water thus rendered turbid is to be decanted into a cucurbit or retort, and allowed to repose till the whole of the iron is deposited; the supernatant clear liquor must then be poured off, and the remaining moisture evaporated by the heat of a sand-bath, care being taken to prevent the access of air to the powder while drying; if the process has been well conducted, the result is a pure black pulverulent magnetic oxyd of iron; as however by moisture and contact with the atmosphere, it soon passes into the state of yellow oxyd, it is necessary to keep it in a dry well clofed vessel. M. Lemery, the inventor of this preparation, as is usual in similar cafes, strongly maintained its superiority over all the other medicinal forms of iron; the technicsts of the process, however, has prevented its use from being very general: it certainly possesse in a high degree the tonic properties which characterize the salts and other preparations of iron, but is superceded in both the British pharmacopoeias by the rubigo ferrii. Beaumé Chymic. Experim. vol. ii. p. 547. Beaumé Elements de Pharmacie, p. 137. Macquer's Chem. Dictionary, Art. Æthiops Martialis.

Æthiops Mercurii per fer.; Æthiops albus; by this name is distinguished in the German pharmacopoeia an imperfect oxyd of mercury prepared by triturating the metal with gum arabic, or any other simple mucilaginous, or by long continued agitation in contact with atmospheric air. Even when all possible care has been taken, this is a very imperfect mercurial oxyd, and in common the metal is merely reduced to a fine state of division. Loccicke recommends it in a dose from half a scruple to half a dram, either alone or united with jalap, in buboes, gonorrhea and other cutaneous affections of a venereal kind, and also in inflammations of the liver; and it has been successfully administered in intermittent fevers. Gmelin's App. Med. vol. ii. p. 145. vol. iii. p. 124.

Æthiops Mineralis.—Æthiops mineral. —Hydrargyrum fulphuratus aeger.—Edin. Pharmae. Hydrargyrum cum sulphure.—Lond. Pharmae. This is directed by the London and Edinburgh Dispensatories to be prepared by triturating in a glass or marble mortar equal parts of sulphur and mercury, or one part of the former, and two of the latter, till they have united into an uniform black powder. Notwithstanding, however, the directions of the college, the Æthiops is in fact generally made by firing mercury into melted sulphur, and then pulverizing the mafs; by which manipulation much time is saved; a method equally expeditious, and perhaps upon the whole preferable to this, is to mix a solution of sulphurated alkali with the mercury and sulphur, in which cafe the two combine very readily by simple triturating, and by subsequent washing, the alkali easily gets rid of. Æthiops mineral is, therefore, mercury at its minimum of oxidation, saturated with sulphur; it is one of the least active of the mercurial medicines, and is used in conjunction with tin filings as a vermifuge, and in some cutaneous diseases. If the combination of the mercury and sulphur is perfect, it will not whitene the surface of gold when rubbed upon it. Lond. and Edin. Pharmacoep.—Lewis's Mat. Med. vol. i. p. 148.—Beaumé Chymic. Experim. vol. ii. p. 456.

Authors are not agreed as to the merits of Æthiops mineral. Cheyne, and many more, commend it highly. It has been prescribed for the worms, and for crudities and acri-mony of the humours; and by some persons it has been reputed infallible against the itch and other cutaneous diseases. Gmelin's App. Med. vol. ii. p. 129. Beccarv, on the contrary, and some others, reject it as useless. He says that it cannot enter the absorbent vessels, the glands, or lymphatics, but passes directly through the intestinal tube, where it may happen to destroy worms, if it operates luckily. Those are deceived who expect any other effects from it. He adds, that it is unwarly given, in large quantities, to children and persons of tender constitutions, as being a foreign mafs, unconquerable by the body, and the more to be suspected, as it continues there for a long time sluggish and inactive.

The Æthiops, as it is now prepared, with a double proportion of mercury, is more likely to produce effect than the inactive preparation formerly used.

Æthiops vegetabilis, is formed by burning the sea-wrack, or sea-oak, the fucus vesiculosus of Linnæus, in the open air, and then reducing it into a black powder. It is sometimes used to remove scrophulous swellings.

Dr. Ruffell recommends it as an useful allatant to fewater in the cure of disorders of the glands, when taken in the
the quantity of a dram; and he says, that, as an internal
medicine, it is much superior to the official burnt sponge;
that, used as a dentifrice, it is beneficial for correcting lax-
ities of the gums; and that its detergent virtue appeared
by its effect in cleansing the teeth. See Murray's App.

Æthiops jovialis, formed of equal parts of mercury,
sulphur, and water, is recommended in an occasional dose
of half a dram, as an antidote to the tinctur. Gmelin's App.
Med. vol. i. p. 115.

Æthiops, is also a name given to several compositions,
which are distinguished by epithets founded on the uses
for which they are applied: as Æ. anticholinis, formed of
mercury extinguished by balsam of Peru, of Canada, or of
Copava, and which is said by Astruce to afford relief in se-
neral species of phthisis: Æ. auricholinis, consisting of mer-
cury and gum in a mixture with gum guaiacum, which
is recommended in the rheumatism and gout: Æ. urino-
rius, composed of quicksilver well mixed with juniper
gum, or sal ammoniac, which promotes the excretion of urine
as well as the cleansing of perspiration: and Æ. purges,
formed with manna or jalap into an uniform powder, and rec-
commended as a laxative, and for destroying intestinal worms.


Æthiops, in Entomology, a species of the Cerambyx,
black, with a spinose thorax, and with the two bands of
the elytra, and the point of the apex yellow, and mid-
drilled antennae, found at the Cape of Good Hope.
Æthiops is also a species of the Carabus, wholly black, found
in Berlin, and a species of the Cimex, black, with a ridge
on the middle of the thorax, and black spinose tubic, found
in Cayenne. Æthiops is also a species of Papilio, with
black wings; the primors marked with three white bands,
and caruncular spots on the upper part, and the posterior
with two longitudinal pale furrows in the base, and a tran-
verse ridge, with five caruncular points; found out of Eu-
rope. Æthiops is also a species of Aphis, or the black bee,
with the margin of the segments of the abdomen white:
found in America. Æthiops is also the hairy black Musca,
with black wings, white at the apex; two points, and a
filvery anus; found in Italy.

Æthiops, in Natural History, a species of the Turco,
with the shell transversely furrowed and black; the first
windings are nearly iridated; the succeeding ones are of
a filvery brightness, with the lip and limb brown; the ap-
erture is dilated.

Æthiops fuliginos, in Ornithology, is the wholly black
Pulica of coast of Sparrman.

Æthiops Simia, in Zoology, the white eye-lid afe of
Penniset, and Mangabe of Bulfinch.

Æthiopes, in Physic, derived from æthos, to in-
fluence, is a name given to superficial putules, or boils in
the skin, occasioned by heat.

ÆTHON, in Mythology, formed of æthos, to burn, one
of the four horaces of the fun, which caused the fall of
Phaeton, according to Ovid. Claudian calls one of
the horaces of Pluto's chariot by the same name, from æthis, black.

ÆTHIRA, in Geography, a river of Sweden, called also
Talkenberg.

ÆTHIRA, a name formerly given to the island of
Rhodes.

ÆTHUSA, Achrus, buglossy, in Botany, a genus of the
pimpinellia digynia class and order; and belonging to the
natural order of umbellate or umbellifers: the characters are,
that the calyx is an universal spreading umbel, with the
rays gradually shortening towards the middle, and the par-
tial is also spreading but small; having no universal in-
volucr, and the partial once placed on the outside, and con-
flating only of three very long, linear, pendulous leaflets;
and the proper perianthium bearc observable: the universal
corolla is nearly uniform, with all the florets fertile, and
the partial has the petals bent in, heart-shaped and une-
qual: the flaminia are simple filaments with roundish an-
ters; the pithium is an inferior germ, and the styles are
relict with obsolete stigmas: it has no pericarpium, and the
fruit is roundish, cracked and bipartile: the seeds are two,
roundish, cracked, except on a third part of the surface,
which is plane. There are four species, viz. 1. Æ. cyaneum,
common fool's parsley, or huffer biscuit, which is a common
weed in fields and kitchen gardens, and in a flight degree
poisonous. It is easily distinguished when in flower, or in
July and August, from true parsley and chervil, by the
three narrow pendent leaflets of the involucre, placed on
the outer part only of the umbel, and by its being a much
humbler plant than either of the others. The leaves also,
in an earlier state, are of a different form and a darker hue,
and when bruised emit in a flight degree a disagreeable
venomous smell. The safest way to avoid doubt or danger
is to cultivate the curled parsley. Milt cattle cat it, but
it is said to be noxious to geese. 2. Æ. busins, or Monta-
nana, cariander-leaved fool's parsley, which is a native of
the Pyrenees. La Marec thinks this species should be joined
to the Spigell. 3. Æ. Meum, Spigell, Meli, or Daff-
deney, which grows wild in the mountains of Switzerland,
Germany, Austria, Carniola, Italy and Spain, and also in
the high plateaux of Wurttemberg, Cumberland, Luxem-
bourg, and Merionethshire. This is the Meum athaman-
icum in Dr. Smith's arrangement of British plants, vol. i.
p. 328. The roots and seeds are aromatic and acrid, and
recommended as carminative and stomatitic in asthma and
obstructions of the lungs, in the stone, droppe of urine,
and all uterine disorders; and the infusion both of
the roots and the seeds is sometimes given to cure inter-
mittent fevers both in England and amongst the inhabit-
ants of the Alps. Spigell is also an ingredient in Theriac
and Mithridate, and appears to be of the fame nature with
lovage. The difference between the roots is most consider-
able in the extract by water, that of the spigell being un-
peaceably bitterish, with little or nothing of the sweet-
ness of that of the roots of lovage. The spiritual ex-
tract of Spigell, more aromatic than that of the lovage,
is moderately warm, bitterish and pungent. Lewis's Mat.
Med. Dioscorides and Galen tell us, that the too frequent
use of this medicine, or too large doses of it, will occa-
sion violent pains in the head. It may be given in sub-
flance from half a dram to two scruples, or from a dram

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natural order of umbellate or umbellifers: the characters are,
that the calyx is an universal spreading umbel, with the
rays gradually shortening towards the middle, and the par-
AEThYSSEIS, a people of Lybia near Marmareia.

AEThIANS, AEThIANS, in Church History, a sect or branch of ARIANS, so called from their leader AEThIUS, in the fourth century.

The AEThIANS were of the stricter kind of ARIANS, who held that the Son and Holy Ghost are in every respect dissimilar to the Father. Whence also they are called AEThMOI and HeteroAEThion; sometimes pure ARIANS.

The profession of this doctrine was contrary to an established law of the emperor Constantius, who had decreed, "that no man should say, that the Son of God was of the same substance with God, or of a different substance, but that he was in all things like to him that begat him." By such nice distinctions were the confessions of mankind directed and guarded; and the freedom of religious inquiry restricted; and the slightest deviation from the preferred rule exposed them to exile and other similar penalties.

AEThINiUM, in Ancient Geography, a town, placed by Ptolemy, in Macedonia, and which, he says, belonged to the Elliotes, but as they inhabited Thessaly, its situation is not well ascertained.

AEThIOLOGICAL, something that alligns the cause of an effect, or appearance.

AEThIOLOGY, in Medicine, a rational, or discourse of the cause of a disease, or it is that part of Pathology, which is employed in exploring the causes of diseases. The word is compounded of aeThio, cause, and logos, discourse.

In this sense, we say, the eThiology of the small pox, of the hydrophobia, of the gout, the dropy, &c.

AEThIOLOGY is used for a figure in Rhetorica, whereby, in relating an event, we affign also the cause of it. In which sense, eThiology differs from color, as the former alligns the true cause, the latter only a feigned or fictitious one.

The sceptics were professed opponents of all eThiology, or argumentation from causes.

AEThION, in Biography, an eminent painter, whose picture of Roxana and Alexander was exhibited at the Olympic games. It represents a magnificent chamber, in which Roxana is seated on a bed, with a modest and confused aspect, whilst Alexander is standing before her. Several Cupids are flitting about her; some of whom hold up the curtain, others undress the lady, and others again present Alexander to his mistress, at whose feet he lays his crown, being accompanied by Epheleon with a torch in his hand, and leaning upon a youth who represents Hyemen. Other Cupids appear in different attitudes and situations. This picture gained it a degree of reputation, that the president of the games gave him his daughter in marriage. It is mentioned with distinguished respect by Cicero, De claris orat. ap. op. tom. i. p. 395. ed. Olivet.

AEThITES, or eagle-fluites, in Natural History, a flinty or crystalline stone, hollow within, and containing a nucleus, which, on shaking, rattles within. It was formerly in repute for several extraordinary magical, as well as medicinal powers; such as preventing abortion, discovering thieves, and other ridiculous properties.

The word is formed from æTh, eagle; and by the Italians this stone is called pietra d' acqua; the popular tradition being, that it is found in the eagle's nest, whither it is supposed to be carried while the female sits, to prevent her eggs from being rotten. Matthiolus says, that birds of prey could never hatch their young without it, and that they go in search of it as far as the East Indies. Balsh has written a Latin tract on the subject.

The lapiz æThites is found in several parts: near Trevoux in France, one can scarce dig a few feet, without finding considerable flints or beds, of the coarse or ferruginous kind.—They are originally soot, and of the colour of yellow ochre.

But the finest and most valued of all the eagle-flutes, are accidental flutes of one or other of our common stones. These are so far, from being a peculiar species of fossil, though usually accounted such, that they are not determinately of any one species of pebble. That, however, which most usually furnishes them is the brown-centered pebble, with whitish, bluish, and brown crusts. The plain history of this remarkable fossil is this: the central nucleus of many species of pebbles, peculiarly of this, is coarser than the rest of the stone, that is, it is made up of more earth and less crystal: the natural consequence of which must be, that being of a more loose and rare texture, it is in drying more apt to shrink than such malles as are composed of a harder and purer matter. The central nucleus in this species is also surrounded with a whitish crust, of a more loose texture, and more subject to shrink in drying than even the nucleus itself; and being composed of more earth and less crystal, is also more friable and soft. The outer circles of this stone are of a much harder substance. Whenever the earthy matter in the nucleus, and first crust of this pebble, a little exceeds its just proportion, the consequence will be, thatLabel: 

The æThites is classed by Chaptal (Chem. v. ii. p. 340) among the bog orcs, or argillaceous orcs of iron: and Kirwan (Elem. Miner. vol. ii. p. 178) describes it under the fourth variety of the first family of these orcs; as, externally, yellowish brown, internally lighter, with a kernel, whose colour is mostly ochre yellow. The form is generally that of a rounded knob, or approaching more or less to the kidney form, seldom quadrangular; the surface is generally fouled with earth. The hollow of the external riad resembles that of silk or is somewhat less glossy, and metallic. The kernel, which is sometimes bole, has no lute at all. The fracture of the former is even, or fine splintery; that of the interior fine earthy. Externally it presents one or more curved laminar concentric concretions, the kernel none. Its hardness is between that which is one degree superior to that of chalk or yielding to the nail, and that which hardly yields to the knife; it is brittle and heavy. Its streak is light yellowish brown, commonly brighter.

The æThites is also known by the names cucurium, cedite, lapis aquile, croddiles, aquileini, & lapis pregnans; some rank it under the class of precious flutes, to which it has no title.

AEThIUS, in Biography, one of the followers of Arius, was born at Antioch in Syria, and flourished, according to Cave (Hist. Lit. tom. i. p. 218) about the year 359, and died in, or soon after, the year 366. Having contended with difficulties in early life on account of the reduced condition of his parents, he applied with diligence and success
to the acquisition of literature at Alexandria in his mature years; and in this city he learned the art of physic, which he honourably practiced for the benefit of those who needed his advice. From Alexandria he returned to Antioch, where he was ordained deacon, as some say, by Leonard, bishop of that city; or, according to Epiphanius, by Gregory the Arab, bishop of Alexandria. He seems to have been a man of sound understanding and considerable knowledge, though his acquaintance with the more ancient Cyprian writers was partial and imperfect. As he had observed the sentiments of Arians, and had acquired the talents of an able and insinuating disputant; whom, says Gibbon, (Hist. vol. iii. p. 340) it was impossible either to defend or to convince, he was banished by Constantius, who, until conference, says the historian (Id. p. 354) was alarmed by the rapine of Ætius, into a remote part of Asia, i.e. says Gibbon, quoting Philostorgius (ubi sup. in Amblat.), a district inhabited by savages, and ruled by war and pestilence: but he was restored by Julian, who honoured him with his patronage, and gave him an estate near Mytilene in Lesbos, where he sometimes resided; though he probably died at Constantinople, and was there buried by Eunomius and his other friends, in a very respectful manner. The dispensions of the Catholics against Ætius was so great, that they stigmatized him with the odious appellation of Attilian. Epiphanius has preserved a small book of Ætius concerning the faith, containing 147 propositions or short chapters, which he has answered; and he also says, from report, that Ætius had composed 300 such chapters. He is said to have held a public disputation with Apthius, the Manichean, of Alexandria, and to have obtained to complete a victory over him, that he died of grief seven days after. He was the founder of a sect called Ætians. Lardner's Works, vol. iii. p. 396. vol. iv. p. 122.

Ætius, called Aetius, from Amida in Mesopotamia, the place of his birth, flourished at Alexandria, about the end of the fifth century, as Friend clearly demonstrates, from several passages in his works, in which reference is made to St. Cyril, who died in 444, and to Petrus Avellator, who was physician to Theodoric. He left sixteen books divided into four tetrabiblia, on the practice of physic and surgery, principally collected from Galen and other earlier writers, but with some original observations. We find many passages, Friend observes, in this author, to convince us how much the actual and potential cauterity were then in use; particularly in a palsy. He says from Archigenes, that he should not at all hesitate to make an eschar either way, and this in several places; one in the nape, where the spinal marrow takes its rife; two on each side of it, &c. and if the ulcers continue running a good while, he should not doubt of a perfect recovery. The late Mr. Pott revived this practice in the palsy of the lower limbs, applying its cauteries in those cafes on each side of the spine, a little above the facrum, induced to it we have no doubt, from reading this passage; and the practice is now general, and is frequently attended with complete cures, so that it seems wonderful physicians do not use them in hemiplegia, and in other similar untreatable diseases. Ætius is the earliest writer who ascribed medical efficacy to the external use of the magnet. But this he does upon report, and not from his own experience. "Tradunt (says he) magnum detentum manum chirurgorum ac podagricorum dolores ipsorum fuede. Ætius conquisit opitulatur. It is reported that those who are afflicted with the gout in their hands or feet, or with convulsions, are relieved by holding a magnet in their hands." The works of Ætius were translated into Latin by Janus Cornarius, a physician of Frankfort, and published, accompanied with the Greek, at Bale, 1522, in folio. Henry Stephens has inserted them in his edition of Medici principes, printed at Geneva, 1567. The last and best edition is that of Francz at Leipzig in 1777.

Ætius, whose father was Gaudentius, an illustrious citizen of the province of Sicyonia, and master-general of the cavalry, and mother a rich and noble Italian, was one of the generals of Placida, the mother of Valentinian III. who reigned 25 years in the name of her son. Ætius served at first among the troops of the emperor's household, and after the battle of Poletin in 403, he was delivered as an hostage to Alaric, and afterwards to the Huns with whose chiefs he became intimately acquainted. His stature, which was tall and majestic, and his constitution, which was robust, fitted him for the duties and toils of a military life. He is also commended by the ancients for his prudence and address in the conduct of political business, as well as for his rectitude and experience in war. His regard to justice was so firm, that no temptation could induce him to deviate from the exercise of it. On his return from the country of the Huns he married the daughter of Carpius, the captain of the guards; and was employed in offices of high trust in the empire. When Marcellus was attacked by Ataulphus, Ætius and Count Boniface were united in its defence; and these two great commanders are said to have deferred the distinguishing appellation of the last Romans. They were unhappily rivals, and their mutual jealousy and discord terminated in the loss of Africa and the death of Boniface. After the death of Honorius, the empire was usurped by John his chief secretary, and Ætius connected himself with the usurper, and was employed to procure the assistance of the Huns. John, however, was soon cut off, and Ætius within three days entered Italy with 65,000 Huns, who served to secure to him a reconciliation with Placidia, and who, by a grant of the province of Pannonia, were prevailed upon to return into their own country. Having induced Placidia to recall Boniface from his government of Africa, and at the same time advised him not to comply, he was the cause of the revolt of his rival, and the loss of Africa; and the discovery of this fraud produced a civil war between these two commanders, which terminated in the death of Boniface, and in the exile of Ætius to the court of Rugilas, king of the Huns, in Pannonia. He soon returned, however, to his own country; and he was indebted to their alliance for his safety and reformation. Instead of the suppliant language of a guilty exile, he solicited his pardon at the head of a large army of barbarians; and the empress Placidia was under a necessity of forgetting his rebellion and his treachery, and of delivering herself, her son Valentinian and the Western empire, into the hands of an insolent subject. The fortunate Ætius, who was immediately promoted to the rank of patrician, and thrice invested with the honours of the consulship, affined, with the title of Master of the cavalry and infantry, the whole military power of the state; and he is sometimes styled, by contemporary writers, the duke or general of the Romans of the West. The Gothic historian, Jornandes, ingenuously confesses, that Ætius was born for the salvation of the Roman republic; and in the eulogium which a contemporary historian befits upon him, he says that his mind and body were alike capable of the most laborious efforts; that he possessed the genuine courage, that can defy not only dangers but injuries, and that it was impossible either to corrupt, or deceive, or intimidate the firm integrity of his soul. But these laudable praisés are not
very confident with his conduct towards Boniface. Attilus affiduously cultivated the alliance of the Huns. Whilst he resided in his tents, as an hostage or an exile, he had familiarly conversed with Attilus himself, and the two antagonists were connected by a personal and military friendship, which was afterwards confirmed by gifts and em balls. Thus a numerous army of Huns and Aholi, whom Attilus had attached to his person, was employed in the defence of Gaul. He established a treaty with Georic, which avouched the Vandals from the plunder of Italy. He re-stored the authority of the empire in Spain and Gaul, and compelled Bochart the Franks and Suevi, after vanquishing them in the field, to become useful allies. He afterwards concluded a peace with Theodoric, king of the Vifgosths, who inhabited the southern provinces of Gaul; after a signal defeat, in which 8000 Goths fell near the walls of Narbonne; and Attilus and Theodoric, in mutual alliance, gave battle to the innumerable host of Attilus, encamped before Orleans, and compelled them to raise the siege. On the plains of Chloras, where the valiant Theodoric fell, Attilus, aided by the intrepid Tolimond, obtained a victory over the Huns, and obliged Attilus to retreat. When Attilus invaded Italy, his prudence and courage served to harass and retard the march of the invader; nor did he ever appear more truly great, than at the time when his conduct was suspected by a timid and distrustful sovereign, and blamed by an ignorant and ungrateful people. At length the emperor jealous of his merit, and fearing his wealth, power, and popularity, put him to death in 454 with his own hand, under a pretence, encouraged by the malicious intimations of Heraclius the eunuch, that he had permitted the invasion of the Huns, after Attilus's defeat, and that he was aspiring to the empire; and thus plunged his sword in the breach of a general who had saved his empire. Thus fell thebel general of his age, the terror of Attilus, and the bulwark of the western provinces, says Sidonius, by the hand of the greatest coward in the whole empire. By this act he converted the public contempt into deep and universal abhorrence. Such sentiments, says Gibbon (Hist. vol. vi. p. 139), seldom pervade the walls of a palace; yet the em- peror was confounded by the honest reply of a Roman, whose approbation he had not detained to solicit: "I am ignorant, Sir, of your motives or provocations. I only know, that you have acted like a man who cuts off his right hand with his left." The memorable letter, entitled the groans of the Britons, was addressed to Attilus, A. D. 454, who was then conful the third time. "We know not, lay they, even which way to flee: chafed by the barbarians to the sea, and forced back by the sea upon the barbarians, we have only left us the choice of two deaths, either to perish by the sword, or to be swallowed up by the waves." Rome was then threatened by Attilus, and the Britons received no assistance. Anc. Un. Hist. v. xiv. p. 417. Gibbon's Hist. vol. vi.

ÅTNA, in Geography, the highest mountain in Sicily. In the Itineraries it is called Elba, and supposed to be derived from Albanus, to burn. Bochart (Geog. Sac. i. c. xxviii. apud oper. tom. i. p. 526. Ed. Volland.) deduces the name from ΑΛΒΙΑ, signifying either a furnace, or darknfet; and he cites several authorities from the poets that favour both the one and the other of these etymologies. The inhabitants of the island call it Monte Giello, or by con- traction Mongello, i.e. Mount of Mountains. This mountain, which has been famous for both its bulk and volcanic eruptions for many ages, is situated in the eastern part of Sicily, called Vol di Demona or Demona, from a notion that the numerous caverns of Åtina are inhabited by demons, and other wicked and misfembles. N. lat. 37° 40'. E. long. 15°.

The fire, which is continually burning in the bowels of this mountain, led the poets to place here the forges of the Cyclops, under the direction of Vulcain, and the prifon of the giants who rebelled against Jupiter. Upon this assumption they erected a temple to Vulcain upon the hill, in which was kept, as we are informed by Attilus (de Anual. l. xi. c. iii. tom. ii. p. 608.), a perpetual fire, as in the temple of Velia; this element being a symbol of that deity.

The figure of this mountain is a kind of obtune, truncated cone, extended at the base, and terminating in a bifuratet vertex, which consists of two eminences at a considerable distance from each other.

With regard to the formation of Åtina, M. De Buffon is of opinion that, on account of its height and immense bulk, it ought to be considered as one of the primitive mountains, coeval with the earth itself; and that it emitted flames soon after the creation; but that, on the subdution of the waters which covered the face of the earth, it ceased to burn, because there was not a sufficient quantity of fluid for producing an effervescence with its mineral contents. After a long lapse of ages, the Straits of Gibraltar were buried open, and the ocean mixed with the Mediterranean Sea; and a similar rupture of the Bosphorus furnished an additional sup- ply of water, and thus it deluged the land between Sicily and Italy, and approached the basis of Åtina. In con- sequence of this event, the mountain began to emit flames anew, which at different intervals, and with various degrees of force, it has continued to do until the present time. From Homer's fable, with respect to the eruption of this mountain, we may judiciously infer, that it did not burn in his days; and therefore the first known eruptions of Åtina must be dated after his age. Other writers, who have not adopted the whole of Buffon's hypothesis, maintain, that Åtina exiled as a mountain before it became a volcano. Dolomieu, cited by Mr. Kirwan (Irish Trans. vol. vi. p. 366), found immense heaps of fea-shells in the north-east flanks of this mountain, at the height of near 2000 feet above the surface of the sea. Hence he concludes, that this volcano existed as a mountain before it was uncovered by the sea. He adds, that at the height of about 2500 feet, there are regular strata of grey clay filled with marine shells; and these strata must have been deposited while the mountain was progressively formed under the sea. He further affirms, that in some parts of this mountain, the calcareous strata exal under the lava. Count Borgh, also, in his Letters on Sicily and Malta, informs us, that the original stone of which Åtina consists, is granite mixed with Jasper, neither of which is lava; and he says, that it abounds in mines of lead and copper, which are never found entire in lava. This geologist pretends, that Åtina is at least 8000 years old; and this high antiquity he infers from the layers of vegetable earth, which he discovered betwixt different beds of lava. Canon Recupero, who had been employed in writing the history of Mount Åtina, has also discovered a stratum of lava, which, in his opinion, flowed from the mountain in the time of the second Punic war, or about 2000 years ago. This stratum, he says, is not yet covered with soil sufficient for producing either corn or vines. It requires, then, about 2000 years to convert a stratum of lava into a fertile field. But in digging a pit near Jack, in the neighbourhood of Åtina, he discovered seven distinct layers of lava, most of which were covered with a thick bed of rich earth; and as the eruption which formed the lowest of these lavas, flowed from the mountain at least 14000 years
years ago, he deduces from this circumstance a corresponding sea for the formation of the mountain. Mr. Brydone, (see his Tour through Sicily and Malta, vol. i. p. 115, 132) informs us, that Recupero was much embarrassed by this discovery and the inference it afforded, because they contradicted the history of Moyses. For the relief of the canon and the satisfaction of the traveller, we might allude to what the Moaician history contains nothing that is repugnant to the notions here suggested concerning the antiquity of the earth. Although man has not exiled longer on the earth than the period assigned in this history, the earth itself might have existed, and probably did exist, in some other form and for other purposes, for ages before this period. Besides, we might ask, is the lava to which the canon directs our attention, the same which flowed from Etna in the second Carthaginian war; and is not the time required for converting lava into fertile fields very different, according to the different consistency of the lavas and their different situations with respect to elevation or depression, and to their being exposed to wind, rain, &c., just as the time, in which heaps of iron flag which resembles lava, are covered with verdure, is very different at different furnaces, according to the nature of the flag, and the situation of the furnace? But there is an argument deducible from fact, which invalidates and totally overthrows the canon's objection. Etna and Vesuvius resemble each other with regard to the various circumstances that pertain to this subject; but the eruption of Vesuvius, which destroyed Herculaneum, happened A. D. 75, or about 1700 years ago. The matter which overwhelmed this ancient town, is covered by the products of still other subsequent eruptions; and these several strata of lava are separated by veins of good soil. See Phil. Trans, vol. lxi. p. 7, and Bishop Watton's Apology for Christianity, in sermons and tracts, p. 383, &c.

Further, Dolomieu (Pones, 472.) informs us, that vegetable earth does not exist between beds of lava; and he observes, that if this were the case, no conclusion relative to their age could fairly be deduced from this circumstance, as some lavas become fertile much sooner than others. To this purpose, Chevalier Gioeni, in 1787, found lavas, that were projected in 1766, in a state of vegetation, while other lavas, much more ancient, remained barren. It is also well known, that beds of volcanic ashes and pumice vegetate sooner than any other. Mr. Dolomieu adds, that canon Recupero denied his ever having expressed any doubt with regard to the Moaician history; and could not conceive why a late celebrated traveller should endeavour to render plausible the orthodoxy of his belief. So far from having been perplexed on that account, he had a pension from the court of Naples to his death, with many testimonies of esteem. The abbe Spallanzani (See Travels into the two Sicilies, vol. i. p. 205, &c.) has stated and examined the argument of Count Borch, deduced from the decomposition and vegetation of different strata of lava, in proof of the antiquity of the world. A lava, says the Count, that was produced by an eruption in 1157, had a coating of earth in December, 1776, that was 12 inches thick; another which had flowed in 1329, had one of 8 inches; and that of 1669, was found more than one inch; whilst the most recent, that of 1766, was entirely delitute of such earth. The abbe allows that lavas, after a series of years, are invested with a stratum of earth proper for vegetation; and that the earth is originally produced by the decomposition of the lava and that of the plants which have taken root upon it. But lavas are very different in their consistency and other qualities; and these differences must render the argument of Count Borch and such reasoning very inconclusive. The lava, which flowed in 1329, and which was examined by the Count 447 years after its eruption, was covered with eight inches of earth; and yet the lava of the Arfo in Sicilia, which ruffled into the sea in 1302, appeared in 1758 to have preserved its hardness and luster. Another current of lava, near Catania, which has been employed for 2000 years for the purpose of building, retains such a degree of hardnees, that where the art and labour of cultivation have not been applied to it, it still continues altogether lacerile. He concludes upon the whole, that all calculations on the greater or less quantity of earth which may cover lavas are very uncertain and fallacious.

But to return from this digression, with regard to the antiquity of Etna, we observe, that naturalists have generally maintained, that Etna, like other inflated mountains, is the gradual production of volcanic eruptions. It is certain, that every great eruption produces a new mountain; and that Etna consists of a number of hills and declivities, more nearly or more remotely connected, which have been occasioned by the commotions and changes, to which it has been subject in the course of many past centuries. Etna may therefore be regarded, not as a single volcano, but as an assemblage of volcanos, many of which are extinguished or buried with a gentle fire, and of which some few are still acting imperceptibly or visibly, with violence.

M. Houel, one of the latest and most accurate inspectors of this mountain, observes, (in his Voyage Pittoresque,) that Etna is entirely composed of substances that have been discharged from the volcano in its various eruptions. From the quantities of marine bodies that are deposited over its lower part, he infers, as others have done, that it must have been once covered by the sea, to at least one half of its present height: and he supposes that, in this state, the currents of the ocean would gradually accumulate upon it large masses, not only of its own productions, such as shells and bones of fishes, but of several other substances intermixed with the matters discharged from the focus of the burning mountain. These masses, he conceives, would, in procurs of time, increase as to form those various mountains which now surround the volcano. The currents of the ocean would likewise convey some part of the discharged matter of the volcano to a greater distance; and thus form those mountains that are separated from it, and that are found farther removed. The base of this mountain, according to this ingenious author's observations, consists of alternate layers of lava and marine substances, successively deposited upon one another, and reaching to a considerable, but unknown depth. These must extend to the level of the stratum of lava, which was discharged by the volcano at its first origin. The last layer, deposited by the sea, is a range of calcareous prominences of considerable height, placed on a base of lava. Beneath this, there is another stratum of sea-pebbles, rounded by their mutual attrition in the conflict of the waves. This, again, lies upon a yellowish rock, conflating of a species of indurated sand. The river Simeto flows over this rock; and the base of the river is much higher than that of Etna, which is on a level with the sea; but the primary base of the volcano is unknown.

From the mountains of calcareous matter that are scattered over the lower part of Etna, the inhabitants provide themselves with lime-stone, and they apply fragments of lava, instead of stones, of which they have none, to the purposes of building. The mountains that surround Etna, and that are offered to great advantage from its summit, evidently indicate, by their conical figure and the cavity at their top, their
their being the productions of fire. They bear unequivocal marks of the effects of this destructive agent in an accumulation of lava, fcorie, and volcanic sand. Whether the origin of these mountains is to be traced to the expansive effort of the ignited matter contained within the great abyss of Ætna, and which, incapable of ascending to the upper crater, bursts forth at the sides; or whether they are to be ascribed to particular configurations and eruptions, which have no communication with the immense furnace within the crater, has been a subject of inquiry and discussion. The former alternative has been generally allowed; and it must be acknowledged that this is frequently the fact. Instances, however, may be cited, which afford strong reasons for believing that the production of the lateral mountains is owing to partial eruptions, which have no communication with the principal crater. Of this kind is Monte Roffo, of which an account will be given in the sequel of this article. Sir W. Hamilton reckons 44 mountains of this kind on the side of Catania, with their distinct craters, most of which are now in a state of fertility.

From the consideration of the constituent parts of Ætna, and the mode of its formation, we shall proceed to state its dimensions. These have not yet been satisfactorily ascertained. Its stupendous height andbulk were noticed so long ago as the time of Pindar, more than 453 years before Christ, in a passage which we shall cite in the progress of our account. He represents it not only as the eternal abode of fnows, but as the pillar of heaven. The ancients, in general, as well as the moderns, have been accustomed to consider Ætna as one of the highest mountains on the globe. There are many passages in their writings, says Mr. Dryden, that shew this; though, perhaps, none more strongly than their making Deucalion and Pyrrha take refuge on the top of this mountain, in order to save themselves from the universal deluge. These ideas, however, appear to be very erroneous; for Sir George Shuckburgh observes, (Phil. Trans. vol. lxxvii. p. 595.) that Vefuvius, placed upon Mount Ætna, would not be equal to the height of Mont Blanc. The accounts of those who have visited Ætna in later times have been very various. The following measures have been given by different authors.

Height above the surface of the sea, 10,036 feet.
Circumference: at the base, 180 miles.
Height, 4000 French toises.
3 miles 264 paces.
4 — 6 and 8 miles.
1200 feet — — — — — —
2500 toises; circumference 183 miles.
1950 toises; diameter 30 miles.
2000 fathoms; circumference 60 leagues; and superficies 300 square leagues.
Summit above the Mediterranean 10954 feet.
Circumference of the visible horizon on the top of Mount Ætna, 6' being allowed for refraction, is 1093 English miles.

Faujas de S. Fond in his Volcans du Varius.
Kircher.
Italian Mathematicians.
Drydone.
Recupero.
Mentelle Geogr. Comp.
Sir George Shuckburgh, Phil. Trans. vol. lxxvii. p. 595.

Others make its height only 2000 toises, and its superficies 300 square miles. By the following heights of the thermometer and barometer, at different stations, extracted from Drydone’s Tour, v. i. p. 211, their respective elevations might be ascertained, if the altitudes by the instruments were accurately taken.

Height of Fahrenheit’s Thermometer.

<table>
<thead>
<tr>
<th>Station</th>
<th>Temperature (°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catania, May 26, at noon</td>
<td>76</td>
</tr>
<tr>
<td>Ditto, —— 27, at 5 in the morning</td>
<td>72</td>
</tr>
<tr>
<td>Nicolosi, 12 miles up the mountain, at noon</td>
<td>73</td>
</tr>
<tr>
<td>At the cave, called Spolona del Capriolo, in the second region, where there was a considerable quantity of snow, at 7 at night</td>
<td>61</td>
</tr>
<tr>
<td>In the same cave, at half an hour past 11</td>
<td>52</td>
</tr>
<tr>
<td>At the Torre del Philosopho, in the third region, at three in the morning</td>
<td>34</td>
</tr>
<tr>
<td>At the foot of the crater of Ætna</td>
<td>33</td>
</tr>
<tr>
<td>About half way up the crater</td>
<td>29</td>
</tr>
<tr>
<td>On the summit of Ætna, a little before sun-rise</td>
<td>27</td>
</tr>
</tbody>
</table>

Height of the Barometer in inches and lines.

<table>
<thead>
<tr>
<th>Station</th>
<th>Height (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>At the sea-side at Catania</td>
<td>29.84</td>
</tr>
<tr>
<td>At the village of Piedmonti, in the first region of Ætna</td>
<td>27.8</td>
</tr>
<tr>
<td>At Nicolosi, ditto</td>
<td>27</td>
</tr>
<tr>
<td>At the Castagno di Cento Cavalli, in the second region</td>
<td>— — — — — — — — — — — — — — — — —</td>
</tr>
<tr>
<td>At the Torre del Philosopho, in the third region</td>
<td>20.5</td>
</tr>
<tr>
<td>At the foot of the crater</td>
<td>20.44</td>
</tr>
<tr>
<td>Within about 300 yards of the summit</td>
<td>19.65</td>
</tr>
<tr>
<td>At the summit of Ætna, where the wind prevented an exact observation, supposed to be</td>
<td>19.4</td>
</tr>
</tbody>
</table>

M. Houel (ad supra) states the circumference of the base at 40 miles; and though he had no opportunity of measuring the altitude, he observes, that it had been done by M. de Saunffyre, who found it to be 10,036 feet or, as we learn from Senèquier, 10,063 English feet. This was ascertained on the 5th of June, 1775, at 20 after seven in the morning. The height of the barometer, on the 11th, at the brink of the crater, was 18 inches 11 lines; which, by the necessary corrections, is reduced to 18 inches 10 15 lines. At the same time, the mercury at Catania, placed only one foot above the level of the sea, stood at 28 inches 2 7 lines, which must be reduced to 28 inches 15 line, on account of the requisite corrections for the thermometer.

Some have supposed, that volcanic mountains always increase in height by the products of successive eruptions, till they are extinguished. However, it is generally conceived that the height and bulk of Ætna are much the same now as they were in former times. The dilapidations, occasioned by the falling in, and aborption of the fummit, have produced, for time immemorial, no sensible diminution; as the lofes resulting from some eruptions are repaired by others which succeed. In proof of this, it is alleged, that if any considerable decrease of the mountain had taken place, ice and snow would not have continued, in a climate so mild, to envelope the top of the mountain, as they now do, even during the most severe heats of summer. On the contrary, it is a very old opinion (vide Seneca, Epit. 179, and Ælian Var. Hist. l. viii. c. xi. tomo. i. p. 548.) and adopted by M. Houel, that Ætna is in a state of decay and diminution, so that it cannot be observed at so great a distance as formerly. It is full of excavations; and he considers the torrents of lava, which overspread its sides from time to time, as insufficient for repairing the vaile occasioned by rains, rivulets, and torrents flowing down from the summit. Hence he concludes that, unless the eruptions become more frequent than they have been for some time past, the height of the mountain will be gradually reduced to that of the surrounding beds of lava. Over the sides of Ætna there are scattered
tered no fewer than 77 cities, towns, and villages; and allowing 1200 or 1500 persons to each of these, the whole number of the inhabitants of Mount Ætna, will be 92,400 or 115,520.

In our further description of this mountain, and of its volcanic productions and appearances, we shall avail ourselves of the accounts that have been given by those who have visited it: selecting from each of those circumstances that are most deserving of notice, and combining them together so as to form a connected and continued narrative. The writers to whose observations we shall principally refer are Borrelli, Hill. Inced. Ætnæ. An. 1669; M. Jac. d’Orville’s Sicil. Mr. Brydone’s Tour through Sicily, vol. i. Sir William Hamilton’s Campi Phlegræì, and Phil. Trans. Riedelef’s Travels in Sicily. Swift’s Travels in the Two Sicilies, vol. i. Abbé Spallanzani’s Travels in the Two Sicilies; &c. vol. i. M. Dolomieu, and M. Hourel, Voyage Pittoresque.

The ascent of Mount Ætna is tedious, difficult, and perilous; and few have had resolution to undertake it. From Catania, where the journey usually commences, to the summit, the distance is about 30 miles; and the traveller, in the progress of his journey, passes through three distinct climates, which might be justly denominated, on account of the variety of their temperature, the torrid, the temperate, and the frigid zones. Accordingly the whole mountain is divided into three distinct regions, called La Regione Calida, or Piedmontes, the fertile region; Il Regione Selvaggia, or Nemorosa, the woody region; and II Regione Deserta, or Scoperta, the barren region. Count Borrelli has added a fourth, which he calls the region of fire; and he has subdivided these four regions into several districts.

The first or lowest region, extends through an interval of ascent from 12 to 18 miles, according to the statements of different writers. Its whole circumference is estimated by Recupero at 183 miles, and its surface is suppos’d by Buffon to exceed 220 square leagues. It is bounded by the sea to the south and south-east, and on all its other sides by the rivers Seneatus and Alcantara, which almost run round it. The city of Catania and several villages are situated in this first zone; and it abounds in pastures, orchards, and various kinds of fruit trees. The fertility of this region has been recorded by Strabo, Ponzello, Peter Benbow, and most of the travellers who have visited Ætna; and it is justly ascribed to the decomposition of the lava, and of those vegetables, which have been introduced by the arts of agriculture, and the exertions of human industry. In some parts, however, the lava appears in craggy eminences above the soil. Where the earth is shallow, the roots of trees, unable to penetrate the hard lava, extend themselves horizontally near the surface; but where there is a greater depth of earth, the soil is more fertile and productive. The first station in the ascent of the mountain is Nicolafo, (see Pl. 1. Nat. Hist. fig. 2. let. H.) which, according to Brydone’s statement, is 9 miles up the mountains, and by Hourel’s account 2496 feet above the level of the sea. The road from Catania to this station lies over old lavas and the mouths of extinguished volcanos, which are now converted into corn fields, vineyards, and orchards. The figs of this region, and the fruit in general, are reckoned the finest in Sicily. When the harvest was finished at Catania and the heat extreme, Mr. Brydone found the corn green at Nicolafo, and the heat moderate. The lava of this region flows from a number of small mountains, which are dispersed over the immense declivity of Ætna. These mountains, which are of a conical or hemispherical figure, are formed by eruptions; and they are generally about two or three miles in circuit, and about 300 or 400 feet high. They are covered with a rich verdure, and beautiful trees. Not far from Nicolaf is Monte Raffo, which was formerly a plain; but in 1669 a new vertex was opened in it, and discharged a dreadful torrent of lava, which flowed as far as the sea, and formed a kind of promontory (as V.) It is surrounded to the extent of two miles with a black sand, which was thrown out in that eruption, and which then covered a space of 15 miles, to such a depth as to bury the vines and shrubs that were scattered over the soil. Some of the finer particles of it were wafted by the wind as far as Catania. The sand is very deep as you approach the mountain; and the mountain is locked at the vertex. By Borrelli’s account its circumference at the base does not exceed two miles, and its perpendicular height is not more than 150 paces; whereas, sir William Hamilton estimates its height at a mile, and its circuit at three miles. Spallanzani prefers the former estimate. Amongst 100 or more mountains, which rear their heads on the sides of Mount Ætna, this is the only one with the history of the formation of which we are acquainted. The base of the lava of this mountain is horn-stone, of a grey colour, rough to the touch, and of a moderately fine grain. It gives sparks with ease, and sounds when it is struck. It serves as a matrix to a great number of felt-fpatoico and sferolaceous crystallizations. The scoria, of which the mountain is principally composed, have the same kind of base, containing shools and felt-spairs; but they are more light and friable than the lava, and have a kind of vitreous appearance. These and other differences are produced by the mutual collision and pulverization of these scoria. The number of detached foisters that are found on and near Monte Raffo is very great. Dolomieu thought, that they first entered into the body of the lava, and that they were separated from it by means of the sulphur, which had scoriﬁed the lava, but had not produced the same effect on the foisters, because of the small quantity of iron which they contain; and consequently they remained free and detached. Spallanzani rejects this hypothesis, as upon experiments with the magnetic needle he found that the martial principle was more abundant in the foisters than in their base; and he therefore accounts for their separation from the lava in another way. The volcanic fire, which melted the lava, was incapable of melting these foisters, which are not only refractory to the fire, but of a different speciﬁc gravity from the lava. When this was melted, elevated to a great height, and separated into small particles in the progress of the eruption, a number of foisters were detached from it, and fell, isolated, partly within the crater, and partly around it. Accordingly he found, that the foisters detached from the lava are insufﬁble in the furnace; but those which are incorporated with the lava fall in a perfect fussion. These foisters are not peculiar to the lava of Monte Raffo; but they are found in many other mountains of Ætna. Spallanzani analyzed them, and from 100 distinct pounds, he obtained the following result; viz.

<table>
<thead>
<tr>
<th>Substance</th>
<th>Pounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silice</td>
<td>5,345</td>
</tr>
<tr>
<td>Lignum</td>
<td>118.7</td>
</tr>
<tr>
<td>Iron</td>
<td>19.4</td>
</tr>
<tr>
<td>Alum</td>
<td>17</td>
</tr>
<tr>
<td>Magnesia</td>
<td>11</td>
</tr>
</tbody>
</table>

Summ. 84.2

The mountain derives its name Monte Raffo, or red mountain, from the tinge of this colour which some parts
of it exhibit; though other parts are white, and others yellow, blue, and green, with different shades and mixtures. All these parts, says the Abbé, are found in a state more or less decomposed; and in general, they are only fœria; the colours are produced by iron, changed or modified by acids. Of these fœria, some have not been affected by acids; and they are covered with a thin pellicul coat of glass, just as if a sheet of water had been thrown over them, and suddenly frozen. This phenomenon is remarkable at Etna, because we there meet with no vitrifications.

M. Houel went down into one of the openings of this mountain with torches, but could not reach the bottom, and was obliged soon to return on account of the extreme cold. The crater is of an oval form, and the opening through which he descended was in one extremity; but he inclined to think that the crater which rises above it had been formed of matter discharged by another mouth; or perhaps it might have had a more central opening, through which the fœria, sand, &c. that form the crater, were discharged. This mountain is one of the mouths of Etna, through which it discharges, from time to time, great quantities of lava, sand, ashes, &c. The fides of the craters are not all of the same height; those to the east and west are considerably higher than the intermediate summits, because the currents of the ashes passed alternately from east to west, and fell upon these fides in greater quantities than upon the others; which circumstance has given to this volcano the appearance of two summits.

St. Niccolo dell'Arma, in the neighbourhood of this mountain, is an agreeable resting-place for travellers who visit Etna. This is an ancient edifice, founded on the lava, and was formerly the habitation of a number of Benedictine monks, who, about 200 years ago were obliged, on account of the devastations occasioned by the lava to abandon it, and retire to Catania. Here are many inscriptions, which record the ruinous earthquakes, torrents of lava, and flowers of sand and ashes by which it has been damaged and even destroyed, together with the dates of their different repairs. The black sand, thrown up in 1669, is more easily changed into vegetable earth than the lava; and has for many years been planted with extensive vineyards; whilst there are many beds of ancient lava that remain in an unproductive state, and of little use of every kind of vegetable.

At a small distance there is another mountain, called Montepellici, or Montepeletri (see letter G.). This is of a spherical form, and its perpendicular height does not exceed 300 feet, and its circuit is about a mile. It is perfectly regular on every side, and richly overgrown with fruits and flowers. Its crater is large in proportion to the mountain itself, and is exactly hollowed out as the bell made a bowl. This mountain was formed by one of the first eruptions that destroyed ancient Neapolis, which was celebrated for its fertility, and particularly for its honey, and thence called Mel Puff; thus, in consequence of being reduced by several eruptions, and more particularly by that of 1669, to a state of wretched, it obtained the contemptuous appellation of Mel Puff. The lava, however, in its course over this beautiful country, has left several little islands or hillocks, which exhibit a singular appearance, with all the bloom of the most luxuriant vegetation, encumbered and rendered almost inaccessible by large fields of black and ruggèd lava.

About three miles above San Niccolo dell'Arma, the lower region of Etna terminates, and the middle region begins. This is called the Regione Sylvæ, the woody region, or the temperate zone; and extends from eight to ten miles in a direct line towards the top of the mountain. Its circumference is estimated by Recupero at 70 or 80 miles; and it comprehends a surface of about 40 or 45 square leagues. It forms a zone of the brightest green all around the mountain; which exhibits a pleasing contrast to the white and hoary head of this venerable mountain, and it is called the woody region, because it abounds with oaks, beeches, firs, and pines. This is a vegetable earth, generated by the decomposition of the lava, and similar to that in the lower region. As soon as we entered these delightful forests, says Mr. Brydole, we seemed to have got into another world. The air, which was before fiery and hot, was now cool and refreshing; and every breeze was loaded with a thousand perfumes; the whole ground being covered over with the richest aromatic plants. Many parts of this region are really the most heavenly spots upon earth; and if Etna reappears hell within, it may with equal justice he said to resemble Paradise without. Here, he says, you gather the most delicious fruit, rising from what was lately a black and barren rock. Here the ground is covered with every flower, and we wander over these beauties and contemplate this wilderness of sweetens, without considering that hell, with all its terrors, is immediately under our feet; and that a few yards separate us from lakes of liquid fire and brimstone. These majestic forests of Etna, says Mr. Houel, afford a singular spectacle, and bear no resemblance to those of other countries. Their verdure is more lively, and the trees of which they consist are of greater height. These advantages they owe to the soil on which they grow, which is peculiarly favourable to luxuriant vegetation. The haw-thorn trees are of an immense size. The beeches appear like so many ramified pillars, and the tufted branches of the oak, like close bushes, impenetrable to the rays of the sun. The appearance of the woods is in general is exceedingly picturesque, not only on account of the number and variety of the trees, but from the inequality of the ground, which exhibits them like the ranges of an amphitheatre one above another. The east side of the woody region abounds with chestnut trees of an extraordinary size. These are cultivated by the inhabitants with particular attention; and as they are wrought into hoops for oaks, they yield a profitable article of trade. But the most remarkable of these trees is the Castello di cento Cavalli, or the chestnut tree of an hundred horses; so called, because it is supposed to be capable of sheltering an hundred horses under the canopy of its boughs. Fabulous report ducès its name from the following circumstance. Jean d'Aragon, during her stay in Sicily, whilst she was travelling from Spain to Naples, visited Mount Etna, and was attended by her principal nobility; but being overtaken by a storm, all of them found shelter under this tree. It stands upon a rising ground, and is surrounded by an open pature, which is bounded by woods and vineyards. Its height has of late been much diminished by lopping its branches, partly under a notion of increasing its fruitfulness, but principally, perhaps, for obtaining a supply of fuel. Some have supposed that it was merely a bush or clump of several trees united. But Recupero, and Swinburne inform us, that upon digging round it they found all the limbs united in one root, or body, at a very small depth underground. Of this trunk five divisions are formed, each of which sends forth enormous branches. The exterior surface of these divisions is covered with bark, but on the inside there is none; the subflulence and verdure of the tree depending upon the external bark. The intervals are of different extent; one of them is wide enough for two coaches to drive abreast. In the middle cavity, or the part that is denominated the hollow of the tree, a hut is built for the habitation and use of those who collect and prepare its fruit, and who dry the nuts in an oven, and
prepare cones of them for sale. Mr. Swinburne says, that his whole caravan, men and animals, were accommodated at their cave in this extraordinary edifice; and after three accurate measurements, he found the outer circumference at one inch above the ground, to be 186 English feet. This tree formerly belonged to St. Agatha, but has lately been declared the property of the crown. There are other trees of a similar kind at a small distance, which are more worthy of admiration than this, as their trunk is entire. One of them, which was clear of branches to the height of 15 feet, and perfectly found, measured, in the girth, at three feet above the ground, 57 feet. The forest of pines, as it is called, is almost inaccessible, on account of the rocks and precipices that surround it. It is chiefly worthy of notice, as it leads the traveller to the grotto. This cavity has been lately formed by the action of the waters under the beds of lava, and removing the stratum of pozzolana below them. It is situated on a mount named Finchio. This grotto has been repaired at the expense of the Knights of Malta, who have hired this and other caverns in the mountain for the purpose of holding snow, which is more wasted in their island than in Sicily, and which forms a very considerable article of commerce. The snow is thrown in at two openings above; and they have access to thee as well as to the internal parts by flights of stairs. A considerable extent of ground is enclosed by high walls above the grotto; so that when the wind drives down the snow from the higher parts of the mountain, it is stopped by the walls of this edifice. It is then thrown into the grotto, where the thickness of the beds of lava, which cover it, prevents any injury from the summer heat. At the feason of exportation, it is preferved close in large bags, and lumps of it are wrapped up in leaves, and conveyed to the sear on miles. Pieces of snow, preferred in this manner, have appeared like the most transparent crystal.

Spallanzani describes the edifice which has been given by other writers to the luxuriance of vegetation in this region. The trees, he says, are low and flinted in their growth; and the beeches which grow only in the upper extremity of the zone, would appear mere pigmies, if they were placed beside those which rear their lofty heads on the Apennines and the Alps. This he attributes to the little depth of earth proper for vegetation.

The woods and verdure of the regions, now described, viz. the inferior and the middle, have been recorded by most of the ancient writers; and therefore the commencement of this vegetation must be lost in the obscurity of time. What is still more remarkable with respect to this woody region, is the circumstance, that the surface of it is so unequal, that it every where presents hills, or rather mountains; all of which have been produced by different eruptions from the summit of Etna, and other craters below the summit, several of which have formerly laid waste this zone, which is now converted into luxuriant forests. Most of the travellers in this region have fought shelter on the night preceding their farther ascent, in the cave called La Speleone del Capriolo, or La Grotta delle Capri, or the grotto of the goats, because these animals take refuge here in bad weather. This cave has been formed, from time immemorial, by the lava, when in a fluid state, and seems to have been enlarged by the torrents of water that have passed through it, and carried away some of the sand and stones of which it consists. The lava is of a horn-hone base; and though its texture is earthy and porous, itpossesses a considerable degree of hardnefs. It contains some veins, and two kinds of felt-spar, some of which are of a flat figure, and brilliant appearance, and others irregular in their form, with little luster, and manifesting a degree of calcination without any fusion. There are some other stones intermixed, which are thought, from their hardness and green colour, to be chlorites. This grotto is situated about 3000 feet above the level of the sea, according to the calculations of M. de Saussure. It is surrounded by lately and majestic oaks, the dry leaves of which supply the travellers who shelter in it with beds, as the wood does with fuel. In the neighbourhood of this cave there are two beautiful mountains, the craters of which are larger than that of Vesuvius. They are now filled with oak, and covered to a great depth with the richest foil.

The upper region of Etna, called its frigid zone, or the Region Dejerta, is marked out by a circle of snow and ice, extending, as some state, to the distance of about eight miles; but according to Fazello, nearly twelve, and having the great crater in its centre. The surface of this zone is for the most part flat and even; and the approach to it is indicated by the decline of vegetation, by uncovered rocks of lava, and heaps of sand, by near views of an expanse of snow and ice, and of the torrents of smoke issuing from the craters of the mountain, and by the difficulty and danger of advancing amid streams of melted snow, floods of ice, and gusts of chilling wind. The curious traveller, however, thinks himself amply recompensed, upon gaining the summit, for the perils with which he has encountered. His fatigue is alleviated by the reflection that the emperor Adrian, and the philosopher Plato, undertook the fame; for the purpose of exploring the summit of the mountain, and of gratifying themselves with a view of the rising sun from this eminence. Most of the travellers who have visited Etna, have been anxious to reach its summit at the dawn of the morning, before the v apours that are raised by the sun obscure surrounding objects; and they all agree in describing the extent and beauty of the prospect. When Mr. Brydone and his companions ascended this eminence, elevated above the common region of vapour, in the night, they observed that the number of the stars seemed to be much increased, and that their light appeared brighter than usual. The luster of the milky way was like a pure flame, that shot across the heavens; and with the naked eye they could observe clusters of stars which were totally invisible in the lower regions. Below them on the mountain they perceived a moving light among the forests, which might probably have been an ignis fatuus, and they took notice of several of these meteors that are called falling stars, which appeared to be as much above them, as when they were seen from the plain; and from this circumstance Mr. Brydone infers, that these meteors move in regions much more remote than the bounds which some philosophers have attributed to our atmosphere. Before dawn they arrived at the ruins of an ancient structure, called Il Torre del Filosofo, which some suppose to have been built by Empedocles, for his convenience in observing the conflagrations, and studying the nature of Mount Etna. By others it is supposed to be the ruins of a temple of Vulcan. Others again imagine it to be a watch-tower, built by the Normans, for the purpose of observing the motions of their enemies, and giving notice of them by signals, to the different bodies of troops scattered over the Island. M. Honel thinks it is not very ancient; neither the materials of which it consists, nor the mode of architecture, bearing any resemblance to those of the Greeks or Romans. Some have affirmed, that they have found in this ruin, fragments of brick and marble; but no such fragments now exist. The materials were examined by Spallanzani, who discovered that they consisted of a cement of lime, which by length of time is become carbonat
of Etna, the distances appearing reduced to nothing. The same scene is described in familiar language by Spallanzani. No elevated region in the whole globe, says this author, offers at one view so ample an extent of land and sea, as the summit of Etna. The first of the sublime objects which it presents is the immense mass of its own colossal body. The first part, and that which is nearest the observer, is the upper region, commonly covered with snow and ice, and occasionally exhibiting rough and craggy cliffs, either piled on each other or separate, and rising perpendicularly, towards the middle of this zone; an assemblage of fugitive clouds, irradiated by the sun, and all in motion, incrusted the wild variety of the scene. Lower down appeared the middle region, with its numerous woods and multitude of mountains, originating from fiery eruptions; and beyond this the eye descends, with admiration, the lower region, the most spacious of the three, adorned with elegant villas and castles, verdant hills and flowery fields, and terminated by the extensive coast, where, to the south, lays the beautiful city of Catania, to which the neighbouring sea serves as a mirror. The observer, at this elevation, discovers not only the entire masly body of Etna itself, but the whole of the island of Sicily, with all its noble cities, lofty hills, extensive plains, and meandering rivers. Malta is also perceived at an indistinct distance; the eye commands the environs of Messina, and the greater part of Calabria; while Lipari and the Aeolian isles appear so near as to be under the feet of the observer, and as if by flocking down he might touch them with his finger. The far stretching surface of the adjacent and surrounding sea presented an object no less majestic, and led the eye to an immense distance, bounded only by the heavens. "Sailed," says Spallanzani, "in the midst of this theatre of the wonders of nature, I felt an indefinable pleasure from the multiplicity and beauty of the objects I surveyed; and a kind of internal satisfaction and exaltation of heart. The sun was advancing to the meridian, unobscured by the smallest cloud, and Rennum's thermometer stood at the 10th degree above the freezing point; I was therefore in that temperature which is most friendly to man, and the refined air breathed, as if it had been entirely vital, communicated a vigour and agility to my limbs, and an activity and life to my ideas, which appeared to be of a celestial nature."

The access to the principal crater of Etna is rendered both inconvenient and perilous, for a distance of near four miles, by a variety of circumstances which different travellers have described. The summit of the mountain is a plain covered with ferein, ashes, and sand, which have been thrown out of the volcano at its successive eruptions, and which are so loose as to endanger the traveller's being swallowed up at every step of his progress. It is also covered with snow and ice, and obscured with clouds, excepting at times when these clouds are low and range along the sides of the mountain, so as to prevent an object of terror. The winds, likewise, blow with such violence that perfons can scarce stand steadily, nor endure the cold which benumbs their limbs. The south wind is, on the top of Etna, the most prevalent, and the cold is so intense, that travellers have often found their clothes insufficient to protect them. But the most formidable impediments to the progress of the adventurers in this perilous journey are the streams of mutch vapour which rise on the sides, and the thick clouds of sulphurous smoke which burst from the mouth of the volcano, even when it is not in a state of agitation. The fountains that issue from the crater are also singularly terrifying, and have discouraged some perfons from approaching the spot whence they proceed. M. Houel compares them to
to a discharge of cannon in the wide abyss, which being reflected from the various caverns produces reverberations of the most alarming kind. By means of these, sounds, which in the open air would be considered as flight explosions, become more tremendous than the loudest thunder.

When Spallanzani visited this mountain, he observed, when he was at the distance of two miles and a half from the limit of his journey, two white columns of smoke, which arose from its summit; one, towards the north-west side of the mountain, and another towards the north-west; several other streams of smoke, which arose from inferior parts towards the west, pursu'd in a direction of these two larger columns. As he proceeded, he met with a torrent of lava, which he was obliged to cross in order to arrive at the smoking summit. This torrent was covered with froth, which projected in some places in a variety of prominent points, and in others sunk in hollows, which rendered its passage extremely difficult; and the lava itself, though the interval from its discharge was 11 months, was in many parts red-hot. His difficulties increased as he passed that tract, which may properly be called the cone of Etna, and which, in a right line, is about a mile in length. Having arrived, after much labour and fatigue, within 150 paces from the vertex of the cone, he found himself enveloped by the vapours of the several streams of smoke that issued from the top and sides of the mountain; and his progress was rendered extremely hazardous by the effect which those noxious vapours produced on his respiration. He soon, however, recovered his strength and resolution, and arrived at the utmost summit of the mountain, where he began to discover the edges of the crater. Here he viewed with astonishment the configuration of the borders, the internal sides, the form of the immense cavern, its bottom, and an aperture which appeared in it, the melted matter which boiled within, and the smoke which ascended from it; and he has minutely described the several appearances from his own attentive and accurate observation. The upper edges of the crater, which are broken and indented in several places, are, as he judged by the eye, about a mile and a half in circuit, and form an oval, the longest diameter of which extends from call to west. Its internal sides, which are inclined at different angles in its several parts, form a kind of funnel of a conical figure, and abound with concretions, which he found to be the marl of ammoniac. The bottom was nearly an horizontal plane, about two-thirds of a mile in circumference; in which plane was visible a circular aperture, about five poles in diameter, from which proceeded the largest of the two columns of smoke, observed before he arrived at the summit of Etna. This column appeared at its origin to be about 20 feet in diameter, and whilst it remained within the crater, ascended in a perpendicular direction; but when it arose above the edges, it was made to incline towards the west by a light wind; and afterwards it dilated into an extended and rare volume. The smoke was of a white colour. Within the crater Spallanzani observed a liquid and ignited matter, which continually undulated and boiled, alternately rising and falling, without spreading over the bottom. This, he says, was the melted lava, which had arisen to that aperture from the bottom of the Etnaean gulf. Several large fomes were thrown into the crater, some of which struck the liquid lava and produced a sound similar to that which would have been occasioned by their falling into a thick tenacious pate; but the fomes which fell on the bottom rebounded, and their sound was different from that of the others. Hence our author infers, that the bottom must be thick and solid, which, if this were not the case, would have been broken by heavy fomes falling from to great a height.

The summit of Etna, surrounded with large masses of lava, is exhibited in Plate 1. Nat. Hist. fig. 2. A. A. A. represents one edge of the lava of 1787, which issued from the upper crater. B. B. is the circumference of the crater, with its declivity. C. C. through which the internal part is discernible. D. is the flat bottom of the crater; and E. the aperture in the bottom, from which the larger column of smoke F. F. arose; which aperture, though it was at one side of the bottom, if, for the greater distinctness of view, represented in the middle. G. G. is that part of the edge of the crater from which its internal part is best seen, and where the design of it might be most conveniently taken. H. H. is the smaller column of smoke towards the north-east.

Spallanzani informs us, that before the eminence on which he stood, there is another to the north, a quarter of a mile higher, which renders the summit of Etna properly bifurcated. The crater on this second pre-eminence, and from which the larger column of smoke ascends, is about one half smaller than the other, and is separated from it by a partition of scoria and accumulated lava, which lies in a direction from east to west. The Abbé has compared his own observations with those of others who have described the crater of Etna in the course of 20 years, or from the time when it was visited by Baron Riedefel in 1767, to that of his own journey in 1788. At the time of the Baron's observation, the crater was enlarged towards the east with an aperture which does not now exist; and as the fomes which were then thrown in did not return the smallest sound, the bottom of the crater could not be formed with the hard and flat surface which the Abbé has described. Within the gulf itself was heard a noise similar to that of the waves of the sea, when agitated by a tempest; and this must probably have proceeded from the lava within the bounds of the mountain, in a liquified and perturbed state. Sir William Hamilton arrived at the summit of Etna on the 20th of October, 1769; but was prevented from distinctly viewing the lower parts of the crater by the smoke that issued from it. From what he was able to observe he concludes, that its figure resembled that of a funnel, diminishing till it ended in a point, and that this funnel was crusted over with salt and sulphur. The crater was then two miles and a half in circumference; and must have undergone great changes in the interval that elapsed between these observations and those of Riedefel, in whose time there must have been an abyss as well as a funnel; nor does the point in which the funnel terminated admit of the flat bottom described by Spallanzani. The dimensions of the crater, stated by Sir William Hamilton, the Abbé accounts for by supposing, that the partition which now separates the great crater into two parts has been produced since the time of his observation; for the sum of the two circumferences which the Abbé has noticed would not much differ from the other measure. Mr. Brydone, who observed the crater on the 29th of May 1770, says, that it was then a circle of about three miles and a half in circumference, that it thinned down on each side, and that it formed a regular hollow, like a vault amphitheatre, and that a great mouth opened near the center. Count Berch arrived at the mountain on the 16th of October 1776, and merly observes, that the crater is formed like a funnel, and that the funnel is bifurcated; a circumstance unnoticed by Sir W. Hamilton, who affirms, on the contrary, that the summit is single; and the Abbé therefore concludes, that one of these funnels has been produced since the journey of Brydone in 1770. M. D'Orville,
D'Orville, who ascended Etna in 1727, remarked two craters, one larger than the other, and in circumference somewhat more than four miles, from which issued clouds of smoke and reddish flames. On looking into this crater, he and his companions were unable to discern the bottom on account of the flames and smoke. They only observed that a conical hill, formed of lava, rose in the middle of the crater, the top of which they estimated to be 60 feet below them; and as they were probably able to see about 60 feet lower, they conjectured that the circuit of this hill might be from 600 to 800 feet.

M. Houdet, whose account of this mountain was published in 1783, and who made a drawing of the crater, represents its environs as consisting of three eminences, forming an equilateral triangle, though when viewed at a distance, only two of them can be seen; for which reason the Sicilians have denominated the mountain hirana, or double horned. The situation of the principal mouth is in the midst of these three eminences. Its diameter was only about 60 feet; but it was so filled with smoke that nothing remarkable could be discovered. This author observes, that the cone is not exactly in the middle of the plain, but that it lies somewhat more to the north than the south. Every observation, therefore, tends to evince the inconvenience of the internal configuration and dimensions of this volcano. Before the changes which have taken place on the summit of Etna, with respect to the number, form, size of its craters, Fazello and Borelli describe another alteration occasioned by the falling in and absorption of the extreme summit of the mountain within its crater. The former author relates, that in his time there arose in the month of the crater a little hill, isolated on every side, which formed the vertex of the mountain, and which, in a terrible eruption, fell into the gulf, and thus enlarged the crater and diminished the height of the mountain. The hill itself had been produced by a former eruption in 1444. Borelli likewise informs us, that in the configuration of 1669 the summit of Etna which rose, like a tower, to a great height above the part which is level, was swallowed up in the deep gulf. Strabo (tom. i. p. 420. &c.) relying on the account of those who had visited Etna in his time, describes the summit as a level plain, about 20 stadia in circumference, surrounded by a bower, or ridge, of the height of a wall; and he adds, that in the middle of the plain arose a smoky hill, the fumes of which ascended in a direct line to the height of 20 feet. Solinus (cap. 11) informs us, that there were two craters, from which the vapours issued. Cardinal Benbow likewise found two craters, one higher than the other, and about as far distant as a fow might be thrown from a fling. The extreme violence of the wind and the exhaled fumes prevented his approaching the upper crater; but he describes it from the information of others, as situated on the highest part of the summit of Etna, about three miles in circumference, formed like a funnel, and having in its middle a spacious cavity. In the time of Fazello, who visited Etna after Benbow, there was only one crater about four miles in circumference. Its form was that of a funnel; it emitted fire and thick smoke; and a subterraneous noise was heard, which resembled the boiling of an immense cauldron on a very fierce fire.

As for the difference that occurred with regard to the appearance of the fumes, noticed by different writers, some of whom represent it as rolling down the sides of the mountain, and others, as ascending perpendicularly to a great height, and afterwards falling, like white flowers on the top of the mountain; it was owing, without doubt, not only to the different denity of the air on Etna at different times, but also to the diversity of the smoke, which would sometimes be lighter and sometimes heavier than the air itself, according to the qualities of the substances from which it is produced.

The effects of the air at the summit of Etna, recited by different writers, have also been very different. Some have complained of the difficulty of respiration which they experienced, which others felt no such difficulty, and assert that respiration is performed with equal ease on the top of the mountain, as in the country below. It appears from the observations of M. Sauflure in his travels on the Alps, that, although at the height of Mount Blanc, about 2430 paces above the level of the sea, a considerable difficulty of respiration was occasioned by the evaporation of the air, no such inconvenience was experienced at the foot elevation of 1390 paces. The height of Etna being less than the last measure, it is natural to infer that the respiration of many persons would not be incommoded, whilst the contrary happens to others, according to the different strength and habit of body of different individuals. The observed difference of the barometer indicated in these various circumstances a considerable difference in the weight and rarity of the air.

Spallanzani observes, that Etna has at all times been very deficient in springs; and when he visited this mountain, water was so extremely scarce, that a single drop of rain had not fallen for nine months. The rain water which the peasants, who inhabit different parts of it, had collected in cisterns was exhausted, they were obliged to go in search of it to those parts of the mountain at considerable distances, where a scanty spring might still be found. This author has observed a similar scarcity of springs in the Eolian or Lipari islands; and he apprehends, that other volcanic countries are subject to the same inconvenience.

The rains, which descend on mountains of this kind, fall on tufts or fiorane, in which they sink deep and do not again appear, because they meet with no argilaceous or sandy strata capable of detaining them, whereas such strata are frequent in other mountains, and produce numerous springs, as we find to be the case in the Alps and Apennines. When the rains fell on compact and solid lavas, they do not sink into them, but run down their declivities, forming rivers and torrents in the rainy season, and not true springs. In several parts of Etna, and especially near the Grotta delle Capre, he observed large furrows hollowed in the lavas, by the action of the rain water. Other writers, however, have given a very different account. They state, that Etna abounds with springs and with rivers of considerable magnitude. See Acius and Aciarata. M. Brydone informs us, that there are several periodical springs on Etna, that flow during the day and stop at night, which he attributes to the alternate melting and freezing of the snow. There are also poisonous springs, which emit a very noxious vapour; and others which afford fine salt; and others again, whose water serves for dyeing particular colours. On the north side of the snow region, there are several small lakes which never freeze. M. Houdet estimates the quantity of water which flows down the sides of the mountain to be such, that if it were collected it would fill the channel of a river 36 feet broad and six feet deep; and he adds, that streams of water are seen to issue at all different degrees of height from the base to the summit of the mountain; and that these continue to flow even during the drought of summer. The supply of these streams, he thinks, cannot be accounted for by the water deposited by the clouds, nor by the melting of the snow; but the source of it must be more regular and permanent. This he conceives to be the evaporation of those aqueous particles that arise from the constant ebullition at the bottom of the volcanic focus, and which, in his opinion, are necessary to the subsistence of volcanoes. These vapours, issuing from the...
great crater, and from innumerable fumeroles in the sides of the mountain, are condened by the cold of that elevated region of the atmosphere, and percolating through the earth, furnish the numerous streams of AEtna with water.

The numerous caverns that are met with in different parts of AEtna deserve notice. The grotto of the goats, the saw grotto, and those of mount Roffo, have been already mentioned. Kircher speaks of one, which he calls faw, capable of containing 30,000 persons. One of these caverns still retains the name of Proserpine, from its being supposed by the ancients, that it was by this entry Pluto conveyed her into his dominions; on which occasion Ovid describes Cerere as searching for her daughter with two trees, which she had plucked from the mountain, for serving the purpose of torches. These trees he calls 'Toda; and they produce great quantities of a kind of rufin, called Catalana, and esteemed a cure for fevers. Ovid. P. 1. iv. tom. iii. p. 271. Ed. Burn. Diod. Sic. tom. i. p. 333. Ed. Westc. 2nd.

AEtna produces a great variety of plants and flowers, as well as trees of a larger size, such as the chestnut, oak and cork tree, &c. Mr. Brydone enumerates the cinnamon, saffron, saffras, rhubarb and palma Chirilli; and he adds, that it was celebrated by the ancients for its odoriferous productions. See Diod. Sic. tom. i. p. 322. Pentearch and Arbodo intimate that the smell of the plants was so strong on many parts of the mountain, that it was impossible to hunt. There was formerly a great variety of wild beasts in the woody region of AEtna; but the number of them is now much reduced. There are still wild boars, roebocks and wild goats; but the race of flags is thought to be extinct. The horses and cattle of mount AEtna were once esteemed the best in Sicily. The cattle are still of a large size, but the horses have degenerated. Spallanzani informs us, that partridges (Tetrao rufus, Linn.) were at that time in the upper extremity of the middle region, and in this region he met with several birds of the timorous species (Purro alaudinus, Linn.) a kite (Falco milvus), three jays (corus glandularius), two thrushes (Turdus visiervorus), and several ravens and crows (corus corax; corus corone). But in the middle of the higher region he saw no other animals, except some hogs-ants (Myrmecus formicarius, Linn.) which made their pitfalls in the dult of the lavas.

We shall close this article, already extended to a considerable length, and compiling every kind of information which we have met with concerning AEtna, with an account of its principal eruptions. The first symptom of an approaching eruption is an incaerule of the smoke, in fair weather; and after some time, a puff of black smoke is seen to shoot up to a considerable height in the midst of the white. These puffs are attended with considerable explosions; and the ascending column of black smoke is followed by a reddish flame. The smoke appears black in the day, and in the night reflembes flame. Showers of ashes proceed; earthquakes frequently accompany them; and red hot flones are projected to a great height in the air. The crater and smoke, at the time of an eruption, are so highly electrified, that they throw off spontaneous flashes into the air; and the smoke has sometimes extended, says Mr. Brydone, for upwards of 100 miles, and produced dreadful effects, killing sheep and flocks on the mountains, burning trees, and setting fire to houses which occupied an elevated situation. From the column of ascending smoke continual flames of forked or zig-zag lightning proceed, and this is sometimes attended with thunder. When these appearances have continued for three or four months, the lava, or fume of melted mineral matter, boils over the top of the crater, or bursts through some weak place in the side. Upon the appearance of the lava, the violent eruptions of the mountain generally, though not always, cease; but without a vent for the lava, the summation is very much increased. In the night this lava appears like a stream of fire, and flows to a great distance; but in the day its progress is marked by a white smoke. It has been a subject of discussion among philosophers, whether the eruptions of volcanoes are now less frequent than they were formerly. This is probably the case, as the matter in the volcanic focus was then greater in quantity than it is at present; and the cavities being smaller were sooner filled with vapours, and the center of the focus was nearer the surface than it is now, in consequence of repeated eruptions and discharges. The whole number of the eruptions of this mountain, of which we have any record, says Spallanzani, before and after the Christian era, is 31; and to only, according to Gioeni, have issued immediately from the highest crater; but it is not easy to make an exact estimate, as the same eruption has continued with or without intermissions, for some time; and has been taken singly by some writers, whilst others have reckoned every renewal of it separately. The eruptions of AEtna have been reported and described by several of the ancient poets. The first of these, by whom they are mentioned, is Pindar, in the following passage, the fifth decade of an ode which was composed in the 7th Olympiad, about four or five years after the second eruption mentioned by Thucydides.

--

Kho, 
\[\textit{Kho,} \]
\[\textit{Kho,} \]
\[\textit{Kho,} \]

Pyth. Od. i. v. 36. &c. p. 158.

Ed. Well and Welldie.

Now under sulphurous Cuma's sea-bound coast, 
And vast Sicily lies his fragrant breadth; 
By howy AEtna, nurfe of endles frueft, 
The pillar'd prop of Heav'n, for ever pres't: 
Forth from white nitrous caverns illuing rife 
Pure liquid fountains of tempfeous fire, 
And veil in ruddy milts the noon-day flies, 
While wrapt in fmoke the eddying flames apfrie; 
Or gleaming thro' the night with hideous roar, 
Far o'er the red'ning main huge rocky fragments pour.

G. Well's translation, Odes of Pindar, vol. i. p. 56. 12mo. &c.

They are also described by Virgil, in consequence of the eruption which happened, according to Mr. Oldenburg (ubi infra) at the time of the expedition of AEneas, who, being terrified with the bloody fire of this burning mountain, left Sicily.

--

Horrifics juxta tonat AEtna ruinas, 
Interdumque stram prorumpit ad AEthera nubes, 
Turbine fumantem piece et candente favilla; 
Adoltillique globos flammatum, et Sidera lumbit; 
Interdum foepulos avelique vicerat montis 
Erigit crufican, liquefacta fia faeub auras 
Cum gemitu glomerat, fundque exaluit ino. 

\[\textit{AEtna,} \]
\[\textit{AEtna,} \]
\[\textit{AEtna,} \]

\[\textit{AEtna,} \]

Ed. Burman.

The philosophical poet, Lucretius, has also mentioned the eruptions of AEtna.

--

Per fauces montis at AEtna 
Explicent ignes interdum turbine tanto, 
Expeditam: neque enim mediocris clade co'erta 
Flamma tempellae, Siculium dominata per agros 
Finimius ad fum convertit gentibus ora; 
Fumida quom coerl feintillare omnia templa

Cerneckes,
Cementes, pavida complebant peectora curas,
Quid moliscut rerum natura novarum.

Lib. vi. v. 639, &c.


Mr. Oldenburg has enumerated several eruptions which happened before his time in the Phil. Trans. No. 43. Abridgm. vol. ii. p. 386. The first he mentions is that to which we have already referred; but the first eruption of which we have any positive historical record is that mentioned by Diodorus Siculus (i. 5. tom. i. p. 235. Ed. Weffel.), though he does not specify the precise period when it happened. This event, however, compelled the Sicani to abandon the eastern parts of Sicily, and to settle in the southern parts. This territory was afterwards occupied by the Sicilians, who migrated thither from Italy. The second eruption is the first of three that are recited by Thucydides (Hist. i. iii. c. 116, p. 237. Ed. Dukeri.) without mentioning the exact date of any one of them. He says, that from the arrival of the first Greek colonies that settled in Sicily, viz. in the third year of the 11th olympiad, corresponding to the year 733 before the Christian era (vid. Annales Thucyd. ed. p. 12), to the third year of the 88th olympiad, Ant. Chrift. 425, Ætna, at three different times, discharged torrents of fire. This second eruption happened according to Euthebiius (Chronicon. MDXC.) Ant. Chrift. 465. The third eruption, or the second mentioned by Thucydides, happened, as he says, in the 50th year before the 1st; or as it is stated (vid. Annales Thucyd. ed. p. 31. Ed. Weffel.) Ante Chrift. 475. Olymp, 701, when Thoedos was archon at Athens. But the Oxford marble refers to the 16th year of the 75th olympiad, Ant. Chrift. 477, when Xanthippus was archon at Athens. In the second year of this Olymipiad, this is said the Athenians gained their boasst victory over Xerxes's general, Mardonius, near Platea. Both the eruption of the volcano and the victory of the Athenians are commemorated in an ancient inscription on the marble table above-mentioned. It was at this eruption, as we are told, that two rich brothers, named Amphilochus and Anapius, disregarding their effects, rushed into the flames and carried off their aged parents on their backs. It is said that the fire spared these youths, whilst others who took the same road were consumed. The citizens of Catania recompensed this act of filial piety with a temple and divine honours. The heroic deed is repreented on an ancient medal, and it is recorded by several ancient authors, as Strabo, (tom. i. p. 412.) Silius Italicus, (l. xiv, exv. exeuv. p. 703.) Valierius Maximus (l. v. c. 4.) Paufanias (Phociea. l. x. p. 867. Ed. Kuhnii.) Ælian (Fragmenta. Var. Hist. tom. ii. 1054) Seneca, Arilottle, Chaldean, Solomon, &c. The fourth eruption, or the third mentioned by Thucydides, occurred, as we have already hinted, in the 88th olympiad, Ant. Chrift. 425, and laid waste the territory of Catania. The fifth is dated by Orofius, in the confufih of Sergius Fulvius Flaccus, and Quintus Calpurnius Piso, about 133 years before Chrift. Livy (l. iv. c. 12. tom. v. p. 1543. Ed. Drakenb.) mentions an eruption in the confulate of C. L. Onaus and Q. Servilius, Ante Chrift. 140. The sixth happened in the 125th year before the Christian era, and Orofius says, that a number of fires were destroyed by it, and that the inhabitants of Lipari suffered exceedingly by eating them. The seventh eruption, which occurred in the 121st year before Chrift, drove Catania to such a degree, that the inhabitants were expelled by the Romans from paying taxes for 10 years, in order to enable them to repair the damage which they had fullained.
suffered much; and the neighbouring castles, and more than 500 houses were destroyed by the ravages of the river, and trees were torn up by violent blasts of wind. Ætna was convulsed and rent in several places, and poured forth torrents of lava, which destroyed the vineyards and gardens at the monastery of St. Nicholas d’Arnta, and proceeded onward to Nicolò, burnt Montepelliari and Follina, and did great injury wherever it spread. The commotions of Ætna were so great, that the summit fell in with a tremendous noise, and the shocks of the earthquake that attended them were felt through the whole island. The inhabitants were so much alarmed and distressed, that they appeared in mourning, and continued in this state for a considerable part of the year. In 1567 and 1579, the ravages of Ætna were renewed; and from 1635 to 1636 its eruptions were occasionally repeated, and torrents of lava flowed from it, which destroyed the woods and vineyards in those parts to which they reached. In 1650, as Oldenburg informs us, from Kircher’s Mundus Subterraneus, the mountain burnt on the north side, and produced great devastation. Carrera was witness of a dreadful configuration in 1663, which ended till the end of May 1678. But the eruption of 1669 was the most formidable and most destructive. Borelli, who was an eye witness of this catastrophe, and some English merchants who were also upon the spot and who examined its effects, of whose report we have a detailed account, in the Phil. Trans. (No. 51. abr. vol. ii. p. 387.) have minutely described the effects, and progress, and ruinous consequences of this eruption. It was preceded, for eighteen days, with a dark sky, thunder and lightning, and frequent concussions of the earth, which destroyed many houses in the village of Nicolò, and dispersed its inhabitants. The old crater on the summit of Ætna raged for two or three months before this event, in a most unutterable manner; and this was also the case with Volcano and Stromboli, two burning islands to the west of it. In the evening of the 11th of March, at the distance of about twenty miles from the old mouth, and ten miles from Catania, a chain was opened in the edifice of the mountain; which is said to have been several miles (Borelli says twelve) in length, and five or six feet wide. This was not far from the place where Monte Pizzo afterwards arose, and extended in the direction of the grand crater of Ætna. See Pl. i. Nat. Hist. fig. 2. V. V. V. On the night following, in the place where this mountain now stands, another large cleft opened, and several other chains were formed in different parts of the mountain; and there issued from all of them huge volumes of smoke, accompanied with the usual phenomena of thunder and earthquake. From the principal cleft there issued the same night a flame of lava, which directed its course to a lake, called da Hurna, about six miles from Montepelliari, and in its way destroyed many dwelling-houses and other buildings in the adjacent village. The next day it moved towards a tract of country called Mul Pizzo, inhabited by about 800 people, which, in the space of twenty hours, was entirely depopulated and laid waste; the lava then changed its direction, and destroyed some other villages. Montepelliari, and its inhabitants, were also destroyed. On the 23d of March the stream of lava was in some places two miles broad, and extended itself to the village of Messale. On this day a new gulf was opened, from which were discharged sand and ashes, which formed a hill with two summits, two miles in circumference, and 150 paces high; these consisted of ashes of different colours. The new mountain of Nicolò continued to discharge ashes for three months, in such quantity as to cover the adjoining tract of country for 15 miles. Some of these ashes were conveyed by the winds as far as Messina, and Calabria; and others spread over the southern country, about Agogla, Lentini, and remoter parts. On the 25th of March the whole mountain, even to its highest summit, was agitated by a very violent earthquake. The highest crater, or its loftiest eminence, then sunk into the volcanic focus, and the spot which it had occupied became a deep gulf, more than a mile in extent, from which were thrown up enormous masses of smoke, ashes, and flames. At this time it is said, the famous block of lava on mount Frenumento was discharged from the volcanic focus. The torrent of lava, which still continued to flow, directed its course towards Catania; it first passed under its walls for a considerable distance into the sea, but afterwards accumulated and passed over them in several places. The gardens and grounds belonging to the convent of the Benedictines were overwhelmed by it; and by its taking this direction many buildings in the town escaped. From hence it divided into separate channels or streams, and flowed chiefly into the sea. The English merchants say, that it had overwhelmed in the upland country, 14 towns and villages, some of which contained 3 or 4000 inhabitants, and flood in a fruitful country, where the fire had not before this time made any devastation; and they add, there is not now so much as a sign where these towns stood, except the church and steeple of one of them, which was situated on an eminence. The Earl of Winchelsea, who at this time happened to be there on his way home from an embassy to Constantino, in his account of this tremendous catastrophe, informs us, that the inundation of fire, cinders, and burning flames, advanced into the sea 600 yards, and a mile in breadth: that it destroyed in 40 days the habitations of 27,000 persons; and of 20,000 persons, who inhabited Catania, 3000 only remained. He adds, that the fire deluged, in its progress, met with a lake four miles in compass, and not only filled it up, though it was four fathoms deep, but raised it into a mountain. He observes, according to an extract, cited by Sir William Hamilton, that he could see at ten miles distance the fire begin to run from the mountain in a direct line, and the flame to ascend in bulk and height equal to those of the loftiest steeples in this kingdom, and to throw up large flames into the air. He discerned also the river of fire defending the mountain, exhibiting a terrible fiery or red colour, and bearing flames, which swam upon it, as big as an ordinary table. This fire was observed to move in several other places, emitting flames and smoke resembling those of a furnace of melted iron, and occasioning a loud noise especially by means of the great pieces that fell into the sea. He adds, upon the information of a cavalier of Malta, that the river was as liquid, when it issued from the mountain, as water, and came out like a torrent with great violence; and that it was five or six fathoms both in depth and breadth, and that no flames could sink in it. Borelli observes, that when they threw flames into the chimney of the mountain, they could not hear them strike the bottom. Burning rocks, he says, 60 palms in length, were thrown to the distance of a mile, and flames of 3 feet fire were carried upwards of three miles, and the thunder and lightning from the smoke were not less terrible than the noise of the mountain. After the most violent struggles, and shakings of the whole island, when the lava got vent, it sprang up into the air to the height of 60 palms; the fire, for many weeks, did not appear, and the day seemed to be changed into night; and it was not till four months from the time when it began to discharge its contents, that these dreadful symptoms abated. This deluge of fire, after destroying the finest country in Sicily, and sweeping away churches, villages, and convents
convents before it, burst over the lofty walls of Catania, and covered five of its buildings, with the intervening courts; and from thence pouring down on the city, it laid waste every object it met with, overwhelming and burying all in one promiscuous ruin. He regrets the destruction of many remains of antiquity; particularly an amphitheatre, which he calls Colosseo, the Circum Maximae, the Kennachia, and several temples. Forcelli has calculated, that the matter discharged at this eruption was sufficient to fill a space of 93,837,500 cubic paces.

The English merchants, to whose account we have already referred, describe the lava as a mass confounding of metals and minerals, which being rendered liquid by the fierce heat of the fire in the bowels of the earth, boiled up and guided forth as the water does at the head of some great river; and having run in a full body for a fume's eul or more, the extremity of it became cooled, and formed those hard fstones which the people call diarri, and which resembled huge cakes of sea-coal strongly ignited. The lava thus proceeded to the sea, when the conflict between the two elements occasioned a noise more dreadful than the loudest thunder, which was heard to a great distance; the water retired before it, the fih on the coast were destroyed, the transparency of the waters was lost for several months; and the clouds or vapours that ascended from it darkened the sun. The fire, say these gentlemen, spread about three miles in breadth, and 17 miles in length. When they attempted to go up to the mouth, whence the lava issued, they could not advance nearer to it than a furlong, but they should be overwhelmed by a pillar of ashes, which seemed to them to exceed twice the bulk of the steeple of St. Paul's church in London, and to ascend into the air to a much greater height. From the mouth proceeded a loud noise, like the beating of billows against rocks, or distant thunder, which was at intervals so violent as to be heard 60 or even 100 miles off; and so far were the ashes carried. The hole whence the lava issued was about ten feet in diameter. Sir William Hamilton informs us, that the lava, on which there were no signs of vegetation in 1769, is 14 miles in length, and in many parts six in breadth, and that after destroying many hundred monuments in Catania it ran far into the sea, forming a safe harbour, which was soon after filled up by a fresh torrent of the same inflamed matter.

The eruption of 1682 produced a burning gulf on the top of the mountain, and its lava was diffused over the hill of Mazzara. In 1686 a quantity of this ignited matter was thrown off from the summit of the mountain, and after consuming woods, vineyards, and crops of grain through the extent of four leagues, its course was channeled into a valley near the mouth of Majestic. Several people, whose curiosity led them to watch the progress of the lava on a hill between the wood of Catania and the confines of Cusa were buried under the hill which suddenly sunk inwardly.

After a long interval of rest, the eruptions of Etna were renewed in 1755, when a prodigious torrent of boiling water issued from the great crater. The discharge of water was preceded by smoke and fumes, by momentaneous noise and convulsions of the earth, the usual signs of an approaching eruption; at length the torrent burst forth, and formed tremendous cañarraits in descending from one chain of rocks to another, till it reached the cultivated plains, which it overflew for many miles; and after separating into several deep and rapid rivers, it discharged itself into the sea. The ravages of this inundation, on account of both the quantity and the heat of the water, were very extensively injurious; and though the mountain continued to throw up water only for half an hour, it produced not only alarm but very considerable damage wherever it flowed. When the discharge of water ceased, the noise, fumes, and convulsions were continued; and there appeared two new chasms, from which two torrents of lava issued, and purified their course through the snow, which covered the fummit of the mountain. The discharge of water was followed in five days by an explosion of small fstones and sand, some of which were carried as far as the hills of Menfi; and the black sand was driven to Messina, and even over the strait to Reggio in Calabria. Some of the sand was conveyed, by the shifting of the wind, to the plains of Agolla. In two days the mountain opened again, and discharged a torrent of lava which moved towards the plain, at the rate of a mile in a day, and continued for six days.

Recupero examined the course of the torrent of water above mentioned. He found that it proceeded from the bowels of the mountain, and purifying a channel which it formed from the summit to the sea, it gained access from the melted snow; and in its progress destroyed a large forest of trees, which were torn up by the violence of the current, though some of them were not less than two and two and a half feet in diameter. The main torrent divided into four principal streams, and these again separated into smaller currents; but afterwards reuniting, they formed islands, and larger rivers, about 900 feet wide, and of a depth which could not be easily ascertained. The channel of the waters, in their further deflection, was alternately contracted and dilated; and in some places it was not less than 1500 feet. Fragments of lava, and huge rocks, were removed by the current, and valleys were filled up by the sand which the waters deposited. When Recupero visited the mountain, after a interval of ten years from its eruption, the whole side of the hill bore the marks of the deluge. In 1769 there was an eruption, which continued with intermissions for three months. From the crater, opened on this occasion, a pyramid of fire issued; which ascended to a great height in the air, and exhibited an artificial fire-work, attended with the explosion of a formidable battery, which shook the earth under those who were spectators of the scene. The lava that flowed from the crater yielded a very brilliant light, retained its heat, and exhaled its smoke for two years; nor did any snow appear on the summit of Etna for five years. In 1764, a new crater was opened at a considerable distance from Etna; and in 1766 another was opened at the grotto of Paterno, which formed a mountain that after an interval of four years discharged great quantities of smoke, with loud explosions. In this interval the lava was not cooled, nor was the fire extinguished. Its fury was spent on a beautiful forest, which it laid waste to the extent of many miles. In 1780, the convulsions of the mountain were often renewed, and several new craters were formed; and from these flowed streams of lava, which moved with different velocities, and in various directions. The most considerable of these flowed from a crater on Mount Frumento on the summit of Etna; and flowing in a stream about 250 paces in breadth, at the rate of about a mile in a day, spread through the valley of Landunza. From another crater red hot fstones were projected, and a current of lava was discharged, which flowed over a tract of country two miles in extent.

The next eruption of Etna happened in July, 1787, and has been accurately described by Gioeni, in an account of it printed at Catania in the same year, of which we have a French translation, by M. Dolomieu, at the close of his Catalogue du Jardin. It was preceded by the usual signs of an approaching eruption for several days, i.e. from the 1st
to the 17th of July, when the lava flowed from the hinder part of one of the two mountains that form the double head of Etna. On the next day, after renewed shocks and the appearance of a thick smoke, a shower of fine black brilliant sand descended; on the call side there was a fall of stones; and at the foot of the mountain a deluge of flames of fire, icoria, and lava. In the evening conical flames appeared alternately to rise and fall from the volcano; at three the next morning the mountain seemed to be left, and the summit was a burning maw. Two of the conical flames were one on the north and another on the south, were of immense extent; where these separated, another cone of flame, composed of many smaller ones, appeared to ascend above the mountain over a base of about a mile and a half in diameter to a height supposed to be about two miles. This cone was covered with a thick smoke, in which were seen very brilliant flashes of lightning; a phenomenon which had not been observed in other eruptions. Sounds resembling the explosions of a large cannon were also occasionally heard.

From the cone, as from a fountain, there was perceived a jet of many flaming volcanic matters, which were thrown to the distance of six or seven miles; and from the base of the cone there issued a thick smoke, which darkened parts of the sky, at the time when the rivers of lava were discharged. This beautiful appearance continued for three quarters of an hour. It began the next evening with greater force, but lasted only for half an hour. In the intervals Etna continued to throw out flames, smoke, ignited stones, and showers of sand. From the 20th to the 22d, the appearances gradually ceased. The stream of lava flowed towards Bronte and the plain of Lago. After the eruption, the western side of the top of the mountain was covered with hardened lava, icoria, and icone. The travellers were annoyed by smoke, showers of sand, mephitic vapours, and excessive heat. The lava that proceeded from the western point was observed to separate into two branches, one of which was directed towards Liceccio, and the other, already mentioned, towards the plain of Lago.

The lava on the western head of the mountain had been evidently in a state of fusion; and from one of the sparcula, the odour was that of liver of sulphur. The thermometer in defending was at 40° of Fahrenheit's scale; but near the lava, on the plain of Lago, it was 140°. The lava extended two miles; its breadth was from 131 to 21 feet, and its depth 132 feet. There was another eruption in October, 1787; the effects of which are described by the Abbé Spallanzani. The stream of lava that issued on this occasion, from the great crater, was three miles in length; its breadth was in some places about a quarter of a mile, and in others one third, and in other parts still greater; its greatest depth was about 18 feet, and the height six. Its course was along the well side of the mountain; and the effervescence that produced it was, like that of July, extremely violent. The icoria were like that of the torrent in July of a black colour; but differed from them in their adhesion to the lava, in their external vitreous appearance, their greater weight, and their hardness, which was such as to yield sparks with fleck, almost as plentiful as flints. These differences are ascribed to accidental combinations of the same substance; the constituent principles of both these icoria being the same. Both contained the same feltspar lamelle. For other particulars, relating to the causses and products of volcanic eruptions, see Basaltes, Lava, Pozzolano, and Volcano. For the places adjacent to Etna, see Catania, Cyclops, Hybla, and Trinza.

Etna, a name given to a city of Sicily, founded by Hiero of Syracuse, in the 1st year of the 76th olympiad, on the ruins of Catana; which was dispossessed of its primitive inhabitants. After the death of Hiero, the Catanians returned, expelled the new occupiers, and destroyed the sepulchre of the Sycraean monarch. The Etnaeans retired to Ischna, or Ennea, which was the name given to mount Etna, and which was distant about 80 fadias from Catana, called it Etna, and announced Hiero to be its founder. Diodorus says, that Dionysius of Sycraea perfused the inhabitants of Catana to remove to Etna, because it was a fortified town. Authors are now hardly agreed about the situation of Etna. Strabo, tom. i. p. 412. Did. Sic. i. ii. c. 76. tom. i. p. 461. l. xiv. v. 644. &c. Thucyd. Annals, p. 31. Ed. Weffeling.

Etna falls, falls Etna, a name given by some authors to the fall amnomous, which is found on the surface and sides of the openings of Etna, and other burning mountains after their eruptions; and sometimes on the surface of the ferruginous matter which they throw out. This fall makes a very various appearance in many cases; it is sometimes found in large and thick cakes, sometimes only in form of a thin powder, scattered over the surface of the earth and fones. Some of this fall is yellow, some white, and some greenish.

This fall is a concrete of nitre, sulphur, and vitriol, burnt and sublimed together. Borrelli found once a salt quantity of this fall on mount Etna, and tried many experiments on it; from whence he concluded, that this salt is so far from occasioning the explosions of the mountain, as some have supposes, that it does not exist in it, but is formed during the burning. Phil. Trans. N° 100.

Etolia, in Ancient Geography, a province of Greece, which formerly comprehended the country now called the Despotat, or little Greece, was parted on the east by the river Evenus, now the Fidari, from the Locrenses Oza, and on the west from Acaania by the Achelous; on the north it bordered upon the country of the Dorians and part of Epirus, and on the south extended to the bay of Corinth. Its utmost extent from north to south was about 48 miles; and from east to west its greatest breadth was somewhat above 20 miles. According to Strabo (l. x. tom. ii. p. 691) it was customary to divide Etolia into two districts, the one called the ancient Etolia, which lay between the rivers Achelous and Calydon on the Evenus, and which was a level and fruitful country, and the other denominated synaes the or the acquired, which was contiguous to the Locrians, towards Naupactus and Euphaurus, and extended northwards towards the mountain Octa, and which was more craggy and barren. He also informs us (tom. i. p. 548, tom. ii. p. 711.) that it derived its name from Alexololus, the son of Eurydaim, who being compelled to leave Elis, removed to this country, and founded several cities in it; of which the principal were Thermus, Calydon, and Pleuron. Their only sea-port was Oenias on the Corinthian bay. Of their kings, who succeeded Alexolus, little more is known than their names. It does not appear by whom it was inhabited before Alexolus took possession of it; and its subsequent history for several ages is very obscure and doubtful. Thucydides (l. x. p. 5. Ed. Duker.) Plutarch, (in Theofr.) Strabo, and other ancient writers represent the Eтолians, as the greatest robbers in Greece, and as continuing such for many centuries, after Hercules, Theseus, and other heroes, had extirpated those banditti everywhere else; to them Strabo ascribes the invention of the fling. Livy (l. xxxvi. tom. iv. p. 1030.) describes them as a proud, arrogant, and ungrateful people, but as good warriors; and they are said to have fought with one shoe, whence the epithet μονοπτήριος has been
been applied to them. Polybius (Meg. Hist. i. iv. paflim. p. 270, &c. Ed. Calaubon,) speaks of them as a turbulent people; seldom at peace among themselves, and generally at war with their neighbours; utter strangers to all fene of friendship, or principles of honour; ready to betray their friends whenever they had the least prospect of deriving any advantage from their treachery; and, in short, as persons who were regarded by the other states of Greece as outlaws and public robbers. In war, however, they were bold and enterprising; insur'd to hardship and labour; and jealous of their liberties, in defence of which they were ready to sacrifice their lives.

The constitution of the Aetolian republic was formed in imitation of that of the Achaeans, and with a view of counteracting their growing power. It was governed by a general assembly, a praetor, and other magistrates, and the people. The general assembly usually met once a year, and on extraordinary occasions it was summoned by the praetor more frequently; and this national council possessed the whole power of enacting laws, declaring war, making peace, and concluding alliances with other states. Each city of the Aetolian alliance deputed members, composing a council which was called the Apostoloi, and which consisted of the most eminent men of the nation, whose office resembled that of the demotarchs among the Achaeans. Their chief magistrates, in subordination to the praetor, were the general of the horse, the public secretary, and the ephors. The republic of Aetolia, thus formed and governed, distinguished itself above all the other nations of Greece, in opposeing the ambitious designs of the Macedonian princes. Having kindled the Macedonian war, and that of the allies, called the Social war, in the heart of Peloponnesus, with a view of humbling their antagonists the Achaeans, they refitted for three years, with the assistance of the Eleans and Lacidianomians, the united forces of Achaia and Macedon; but they were at last obliged to purchase a peace by surrendering to Philip the whole of Acrania. But as they gave it up with reluctance, they were anxious to seize the first favourable opportunity that occurred for regaining it. With this view they concluded an alliance with the Romans, Ante Chrill. 211; which was ratified two years after it was formed, by both nations. The articles of which it consisted were ordered by the senate to be deposited in the Capitol, as a lasting monument of their first alliance with the Greek nation. Hostilities, however, immediately commenced, as soon as the treaty was concluded. Whilst the forces of Philip were employed in Macedon, the Aetolians entered Acrania; where they found a very determined and vigorous opposition. Notwithstanding the assistance which they were likely to derive from Lœbinus, the Roman General, who had projected the alliance with them, they were intimidated by the resolution of the Acranians, and returned home without attempting to provoke a people who had declared their purpose either to conquer or die. Diverted from prosecuting their first design, they turned their arms against Anticyra, a city of the Lacri, and aided by the Romans, compelled it to surrender. This success encouraged them to march into Achaia, and to oppose the forces of Philip. The hostile armies met near Lamia, a city of Phocis, where the Aetolians were twice defeated. After this victory Philip was prevailed upon by an embassy from Ptolemy Philopator, king of Egypt, and by deputies from the islands of Chios and Rhodes, and the city of Athens, to grant the Aetolians a truce of thirty days, and to enter into a negotiation for peace. Polybius has preferred (i. xi. c. 4, p. 626) one of the speeches which was delivered on this occasion, and which may be considered as a master-piece of the kind. The negotiation, however, proved unsuccessful: and the war was renewed with considerable, though temporary, advantage on the part of the Aetolians and their confederates. During the absence of Philip, they possessed themselves of several cities: but upon his return, being abandoned by the Romans, they were under a necessity of concluding a peace upon very unfavourable terms, Ante Chrill. 264. This peace was of short duration. An extraordinary diet was held at Naupactus, in which the friendship and alliance of the Aetolians were solicited by Philip, and also by the two powerful republics of Athens and Rome. The Romans, however, prevailed (ante Chrill. 201), and the Aetolians, after some previous conferences, entered Thebally, where they were met by Philip, and, after a considerable slaughter, totally routed. Next year they rallied again, and re-entered the Elysians, plundering and destroying everywhere they came, and either putting the inhabitants to the sword, or selling them for slaves to the butcher. The Aetolians maintained their attachment to the Romans during the course of the war, and were favoured by the Roman commanders above the other nations of Greece; but after the battle of Cynoscephale, in which Philip was entirely defeated, their mutual affection abated. The Aetolians arrogated to themselves the glory of this victory; and Flamininus, the Roman general, mortified their vanity and excited their resentment, by granting a truce to the deputies of Philip without consulting them. When a negotiation for peace between Philip and the Romans commenced, the Aetolians obstructed it; and it was concluded Ante Chrill. 196, without their concurrence. Dissatisfied with the conduct of the Romans on this occasion, they meditated revenge, and exalted themselves in raising new enemies against their former allies. They made their first attempt in the assembly of the Amphictyons, but failing here, they had recourse to Antiochus king of Syria, Nabis tyrant of Lacedaemon, and even to Philip king of Macedon. They were immediately joined by Nabis; and having concerted a plan for seizing on three cities, which were reckoned the bulwarks of Greece, viz. Chalcis in Euboea, Demetrias in Thebally, and Lacedaemon in the center of Peloponnesus, they proceeded to the execution of it. Having succeeded in flattery in gaining possession of Demetrias, Antiochus, who had declared in their favour, determined to land in this place; and in the year (ante Chrill. 192) he arrived in Greece; and in a diet held at Lamia, he was honoured with the title of generalissimo, or commander in chief of all the Greek armies against Rome. The king of Syria having gained possession of Chalcis, was joined by several of the Greek states, who renounced their alliance with Rome: but Chalcis in the event proved no less fatal to Antiochus than Caphan had been to Hannibal. During his residence in this city he formed a connection with the daughter of Cleopatra, one of the chief citizens, and married her. Such was the ardour of his attachment to the new queen, that he seemed to forget Rome, Greece and Syria. The king spent the winter in featings and rejoicings; his example infected the officers of his army; the soldiers abandoned themselves to idleness and debauchery; and mutiny and disorder universally prevailed. The Romans availed themselves of these circumstances; and in the year Ante Chrill. 191, declared war against him, and dispatched a powerful army into Greece. The Aetolians could afford him little assistance; nor was he able to stay the progress of the Roman army, till they compelled him to take refuge first in Chalcis, and afterwards to set sail for Asia and retire to Ephesus. The Aetolians were strongly fortified.
fortified at Hermione: although their number amounted only to 2000, they held out 40 days against the incessant attacks of the whole confederate army under the victorious Aemilius. The town was at length taken by force, and delivered up to be pillaged by the soldiers. Laminia, which had been for some time unsuccessfully besieged by Philip, surrendered to the Romans. After the loss of these two cities, the 

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ÆTOLIA, an ancient town of the Peloponnesus, placed by Steph. Byzant. in Laconia.

ÆTORCHEUM, a promontory of Bithynia.

ÆTÜATAS, a people of Helvetia, upon the frontiers of Rhetaia, towards the sources of the Rhine.

ÆÆULANA, a country of Armenia Minor.

ÆÆYMANDRI, a people of Afia.

ÆVSKAIA, in Geography, a town of Siberia, situated on the Irith: 20 leagues north-west of Tara.

ÆX, the name of one of the nymphs of Jupiter, who was placed among the Muses.

ÆXONA, a borough of Attica, dependent upon the tribe of Ceereopides. The inhabitants were so much addicted to cabbalism, that a word interpreted Æxona was used proverbially for speaking evil of another.

ÆXONIA, was also the name of a city of Magnesia in Thessaly. Stephan. Byz.

ÆZALÀ, a town of the greater Armenia in Afia.

ÆZANIS, a town of the greater Phrygia in Afia.

ÆZAR, a people of Africa, who gave name to a canton of Marmarica.

ÆZICA, a country of Thrace.

ÆFDELLES, in Ichthyology, a name given by the Cretans to the fish called at Rome, donzellina and zigorella. See Juv. vol. 1.

ÆFER, Constantinus, in Biography. See Constantius.

ÆFER, Donatius, a celebrated orator, was born at Nimæus, in Gaul, in the year before Christ 15 or 16, and lived under Tiberius, and the three succeeding emperors. After his advancement to the office of praetor, his ambition led him to aspire after higher honours; and with this view, preferring fame to virtue, he exercised his talents as an orator. Claudius Pulchra, the cousin of Agrippina, was the first object of his attack; and by charging her with adultery, witchcraft and magical operations against the emperor, he recommended himself to Tiberius, who had conceived an invincible detestation of Agrippina. Agrippina, however, much as she must have resented his conduct, treated him with the contempt he deserved; for when he accidentally met with her after the imprudence of Claudius, and he was endeavouring to avoid her, the pontificem applied to him the passage in Homer (II. s. 385.)

"Of you my master says all things."

"It is not of you, it is of Agamemnon I complain!"

Thus intimating her disdain of him, who was the mere minister of an injustice that proceeded from a higher power. After next year directed his accusations against Quintillus Varus, the son of Claudius; in which he was aided by P. Dolabella, who was a man of birth and the relation of Varus. Finding this practice to be a source of wealth and honours, in the degenerate period in which he lived, he adhered to it through life, and incurred the contempt even of his admirers, by perishing in it when his faculties were impaired by age, and the decay of his powers eclipsed the fame of his former eloquence. His advancement at this period depended on his talents for flattery, as well as on those by which he was distinguished as a public speaker. Having erected a statue to Caligula, he introduced into the intercession a record, which he undoubtedly designed as an expression of respect, that the emperor was a second time consul at the age of 27 years. Caligula interpreted the compliment as a criterion of his acquisitions in the law, and as a reproach of his youth; and pronounced a vehement oration against him in the senate. After, instead of making any reply in his own vindication, professed the highest admiration of the emperor's eloquence, and rec-

pleaded the greatest part of his speech in strains of rapture. By this fawning artifice he not only obtained a pardon, but induced the emperor to dispel the confusions of his court, and by this act of injustice to make way for the advancement of Afer.

This orator died in the reign of Nero, A.D. 59, in consequence, as it is said, of eating to excess. Quintillian affi-
diously cultivated the friendship of Afer, and was in his youth a constant attendant on his pleadings. Of his eloquence he speaks in terms of high commendation, as dif-
tinguished by art and wit, intitling him to rank among the first orators of Rome. According to his account, Afer often introduced pleasant stories and fables of wit in his pleadings; and collections were made of his jests. He discouraged and condemned the prevailing practice of vociferous applause; and being repeatedly interrupted while he was pleading slowly and gravely before the Cent-
tumviri, he paused, and addressing the judges, observed, "Gentlemen, our profession is ruined." Afer, however, exposed himself to ridicule, by continuing to plead under the imitations and ditties of advanced life; for, says Quinctilian, laughed, others were astonished; and he observes that Afer incurred the reproach, "Malle cum defeceris, quam defineris?" or, "that he had rather fail than finish!" and he grounds on this conduct a recommendation to orators to withdraw, when age incapacitates them for maintaining their former reputation. The orator, he says, in order to prevent falling into these snares of old age, should found a retreat, and come into port with a sound vessel. Tacitus, Annal. l. iv. c. 65, tom. i. p. 317. l. xiv. c. 10, tom. i. p. 935. Ed. Gronov. Dion Cassius, Hill. Rom. tom. ii. p. 922. Ed. Reimar. Quinctilian, Inst. l. v. c. 7, tom. i. p. 378. l. vi. c. 3, p. 535. l. x. c. 1, p. 978. l. xii. c. ii. tom. ii. p. 1107. Ed. Burman. Pliny, Epift. l. P. 14.

ÆFFA, a weight used on the gold coast of Guinea. It is equal to an ounce, and the half of it is called egrebo. Most of the blacks on the gold coast give these names to those weights.

ÆFFACUS, in Geography, a town on the Barbary shore, eight leagues south-east from Africa.

ÆFFÄNG, a town of the archduchy of Aftria, three leagues west of.Steyr.

ÆFFAR, a town of Arabia Felix; 14 German miles west of Lohra.

ÆFFATOMIA, in Ancient Laws, a kind of donation made by throwing a wand into the person's bosom, to whom it was made. Du-Cange.

ÆFFECTED, in Algebra. See Adlected.

ÆFFECTIO lovatis, is a disease incident to cattle, occasioned by a little worm, bred between the flesh and the skin; which works its way over all parts of the body.

ÆFFECION, in a general sense, denotes an attribute peculiar to some subject, and arising from the very idea or essence of it.

The word is formed from affecer, to affect; the subject being here supposed in some measure affected, or acted on, by the thing attributed to it.

In this sense, affection is synonymous with property, or with what the schoolmen call proprium quarto modo.

Philosophers are divided as to the doctrine and division of affections: according to Aristotle, they are either subordinating, or subordinated; under the first of which comes only subordinate; and under the second, sentiment, place, and time.

The generality of Peripatetics divide affections into internal, as motion and sentiment; and external, as place and time. According to Sperlingius, affections are better divided into simple or united, and distinct or separate: under the first he comprehends
AFFECTIONS are also distinguished into those of body, and those of mind.

AFFECTIONS of body, are certain modifications of it: occasioned or induced by motion; in virtue of which, a body comes to be fo and so disposed.

The affections of body are sometimes subdivided into primary and secondary.

AFFECTIONS, primary, are those which arise either from the idea of matter, as quantity and figure; or from that form, as quality and power; or both together, as motion, place, and time.

AFFECTIONS, secondary, or derivative, are those which arise from some of the primary, e. g., from quantity, as divisibility, continuity, contiguity, limit, impenetrability; from figure, as regularity and irregularity; from quality, as health, strength, &c.

The epithet mechanical is applied to those affections that are properties of matter, resulting from its figure, bulk or motion.

AFFECTIONS of mind, are what we more usually call passions.

Dr. Cogan, in his Philosophical Treaflie on the Passions, very properly distinguishes between affection and passion; and he accurately differentiates between both these terms, and that feeling, which is usually denominated emotion.

The term affection, he says, has a different signification from either of the other two, and represents a less violent, and generally a more durable influence, which things have upon the mind. It is applicable to the manner in which we are affected by them for a continuance; and supposes a more deliberate predilection and aversion, in consequence of the permanent influence of some prevailing quality. This distinguishes it from the transient impulse of passion; nor is it so intimately connected with any external signs, which distinguish it from emotions. The affections sometimes succeed to passions and emotions, because these may have been excited by something that becomes permanently interesting; or they may be gradually inspired, by a deliberate attention to the good or bad qualities of their objects. In this philosophic sense of the word, affection is applicable to an unpleasant as well as pleasant state of the mind, when impressed by any object or quality; it may be produced by any thing that torments or corrodes the heart, as well as by that which charms and delights it. Custom, however, chiefly appropriates the term to the kindly and benevolent affections.

In the same manner Dr. Reid (Effays, p. 143. 167.) has applied the general name of affections to those various principles of action in man, which have persons for their immediate object, and which imply, in their very nature, our being well or ill-affectd to some person, or at least, to some animate being; and whether they dispose us to do good or hurt to others. He observes, however, that the word affection seems, by custom, to be limited to good affections. Accordingly, when we speak of having affection for any person, it is always understood to be a benevolent affection. In the extensive sense above stated, our affections are very naturally divided into benevolent and malevolent, as they respectively imply our being well or ill affected towards their object. The characters of love and hatred, resulting from the infinitely various situations and circumstances upon which their development and operations depend, entitle them to the denomination of primary or cardinal affections.

Our benevolent affections, whilst they differ in the feeling, or sensation, which is a common ingredient in all of them, and in the objects to which they are directed, agree in these two respects, viz. that the feeling which accompanies them is agreeable, and that they imply a desire of happiness to their object. The first of these affections is that of parents and children, and other near relations, commonly called natural affections: the second, is gratitude to benefactors; the third, is pity and compassion towards the distressed: a fourth is esteem of the wife and good; the fifth is friendship; the sixth, is love between the sexes; and the last, is patriotism, the public spirit; that is, an affection to any community to which we belong.

The malevolent affections, commonly called passions, in the arrangement of Dr. Reid, are emulation and resentment. For the difference between affection and disposition, See Disposition.

AFFECTION, in Geometry, is synonymous with property. Affection, in Medicine, denotes a morbid, or preternatural state of the body, or some of its parts. Thus we say, an hypochondriacal, an hysterical affection; and, in like manner, such a part of the body is affected, i. e. indisposed, or feized with a disease.

AFFEKTORS, AFFERATORES, in Law, persons appointed in court-keets, and courts-baron, upon oath, to settle and moderate the fines of such as have committed faults arbitrarily punishable, or which have no expres penalty set down by statute. See Stat. 25 Edw. III. c. 7.

The word is formed, according to Cowell, of the French, to afffcr; by reason those appointed to this office do affirm, upon their oaths, what penalty they think, in consequence, the offender hath deferred. Others better derive it from affercr, a word in the customary of Normandy, rendered by the Latin interpreters, taxare, to set the price of a thing; as afferers, assesseors, &c.—Kitchin joins the three words as synonyms; affector, amerciatores, afferors.

AFFENTHAL, in Geography, a valley of Suabia in the Ortenau, near Strasburg, famous for its excellent wines.

AFFERI, in Law. See Averia.

AFFETTUOSO, or Con Affetto, in the Italian Music, is used to denote that kind of music which must be performed in a very tender, moving, and affecting manner; and that reason rather flow than fast. This term, placed at the beginning of a musical air, implies, in point of time, a movement between cantante and largo; and requires a sweet and affecting expression of the melody.

AFFIANCE, in Law, the plighting of troth between a man and woman, upon an agreement in marriage to be had between them.

AFFIDATIO Dominorum, signifies an oath taken by the lords in parliament: thus called in the Rot. Parl. Hen. VI.

AFFIDATUS, or AFFIDATIUS, in our Law Books, denotes a tenant by bailty.

Affidati are not properly vassals, but quasi vassals, or persons who vow fidelity to, and put themselves under the protection of, another.

In this sense they amount to the same with what are otherwise called commendati, and recommendati.

AFFIDAVIT, an oath in writing, sworn before some person who hath authority to take such oath; and, made use of, and read in court, upon motions; though not allowed upon trials.

In the court of Chancery is an Affidavit-office, under the direction of a Master of Chancery.

AFFILAE, in Ancient Geography, a district of Italy belonging to the Hernici.

AFFILIANUS
AFFILIATION, adj. 1. The union of an individual with another by an act of adoption, as a son or daughter. 2. The act or fact of being adopted, as a child. 3. The process of adopting, as a custom.

AFFICTION, n. 1. A strong love or attachment, as for a child. 2. A painful or disagreeable feeling, as for a relative.

AFFIANCE, v.t. To adopt, as a son or daughter.

AFFINITY, n. 1. A similarity or resemblance, as of blood or nature. 2. A close relationship, as by blood or marriage. 3. A similarity of character or nature.

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Affinity is more particularly used in speaking of the relationship or similitude between languages, occasioned by their being derived from the same source. We use the affinity of words, sounds, &c.


This term, which in its proper and original sense signifies a probability of relationship, has been adopted by modern philosophers as the expression of a force purely chemical, by which substances of different natures are made to combine with each other. This particular metaphorical use of the word is not, however, of very old standing. Barchuhen is probably the first who introduced it; speaking of the difficulty of obtaining chemical elements perfectly pure, he accounts for it in the following way, "Aretan enim atque reciprocum inter fe halcent affinitates." Boerhaave, however, contributed more than any other to bring the word into common use; thus we find in his Elementa Chemicæ: "Particula solvenites et solutæ se affinatæ natura, colligunt in corpora homogenea." Bergman has preferred the term attraction, as more conformable to the precision of scientific language; since, however, all bodies in nature attract each other, while chemical affinity exists only between particular substances, it seems upon the whole more convenient to appropriate a term to the expression of this particular force, without, however, rigorously excluding the synonymous phrase elastic attraction, which the high authority of Bergman has introduced into the chemical nomenclature.

In treating of so important a subject as chemical affinity, it will be necessary, for the sake of clearness, to divide it into six sections.

The first will contain a sketch of the progress of discoveries in affinity.

In the second the cause of affinity will be discussed.

The third will treat of single and compound affinity, and the construction of tables and schemes.

In the fourth the several methods of estimating numerically the force of affinity will be considered.

The fifth will contain the laws of affinity.

The sixth will be appropriated to the consideration of certain anomalies.

§ I. History of Affinity.

The general fact that all substances have not the same relative degree of affinity for each other, must have been observed as soon as the smallest attention began to be paid to chemical phenomena, and in the first rude attempts to explain the cause of this difference of force, recourse was had to the maxim of Hippocrates, ὡς οὖν ἔστιν ὁ ἄρτρος, οὕτως εἰσίν ἁπλά. This doctrine of the old school we still find in Beccher, who supposed that there was a hidden principle of similarity in all substances capable of mutual chemical combination. Another fact, at the head of which was Lemery, endeavoured to explain chemical agency by considering solvents as composed of a multitude of fixed points, and thus mechanically predisposed to enter the pores and separate the particles of substances exposed to their action.

Stahl, however, rejecting the hypothesis of mere mechanical forces, attributed the power of men of to the attraction of contact or intimate cohesion; for, to use his own language, "combinationes quamquam non aliter fieri quam per arctam appositionem." — Non per modum cunct, quae per modum incursus in unam particularis separan, dam, sed putius per modum apprehensionis eff arctae ap-

plicationis." This eminent chemist also deduced from his experiments a variety of facts and observations, tending to prove that an union once formed could not be dissolved without a more intimate union of one of its constituent parts with another substance.

It is to Geoffroy, the elder, that chemistry is indebted for the happy idea of collecting these scattered facts, and sketching the outlines of the general rules of analysis and composition. In the year 1718, he presented to the Royal Academy of Sciences at Paris the first table of affinity, or as he calls it, "Des differens rapports observés en chimie entre différentes substances," (some of the different relations observed in chemistry between different substances). This table, which merited premention, as a curious historical memorial, and the pattern of all that have appeared since, consisted of only seventeen columns very imperfectly filled, and prefixed, rules which for the most part have been changed or considerably modified. With all its errors, however, it is justly to be considered as the basis and guide to all our chemical knowledge; it has been enlarged and improved, but still retains its original form and essence, and as the great fabric of experimental science advances towards perfection, so will this, which is its epitome and model.

No very material improvement appears to have been made on Geoffroy’s table till Gellert, the celebrated proffesor of Freidburg, published, in 1720, his Chymia Metalurgica; in this work was contained a new table of affinity extended to 28 columns, and at the bottom of each was a list of substances which he had found not to be acted on by the body placed at the head of the column. Rudiger, in 1736, infixed in his Syllable of Chemistry a table of affinity reduced to 15 columns, in which the fixed alkalies and lime are placed parallel with each other, and before ammonia in the column of acids; he also added, in a small supplementary table, those bodies which refused to combine without the intervention of a third.

In consequence of a prize offered by the Academy of Rouen, in 1758, a very important addition was made to the table of affinities by M. Limbourg; he extended the number of columns to 33; he ascertained that zinc should be placed at the head of the metals in the column of acids, and that it precipitated them all, even by the dry way; he maintained, that lime and the fixed alkalies acted by mean of affinity on animal matter; and pointed out several cases in which the order of affinities was changed by the influence of temperature or the volatility of one of the ingredients.

From this period, the importance of the subject being fully established, tables were multiplied and the general system of affinity was investigated by some of the ablest chemists of the age, among whom the names of Erxleben and Weiglefland eminently distinguished. At length, in 1755, the illustrious Bergman published his disquisition on elective attractions, in the transactions of the Royal Society of Upsal, and successive editions of his tables made their appearance in 1759 and 1783. These tables may justly be considered as a masterpiece of skill and industry; the affinities of no less than 59 substances are ascertained with great exactness, and the distinction between those that take place in the moist and dry way is perfectly stated; the method of registering cases of compound affinity is perfected, and 64 of the most important are added to the general flock of chemical science. Since the death of Bergman, successive impressions of his tables have appeared with little or no alteration, till Dr. Pearson’s in 1799. In this, the nomenclature is changed, and in part reformed according to the French system; a few articles to be found in Bergman,
Bergman are expounded on the authority of later investiga-
tions, and the number of columns is increased to 62.

It is not, however, to the construction of tables, im-
portant as they are, that the researches of chemists on the
subject of affinity have been confined. Since the discov-
er of the great law of attraction, by Newton, it has been
the uniform endeavour of the ablest philosophers to show
that the cause of chemical phenomena is only a branch or
modification of this universal property of matter, and the
names of Buffon, Maquer, Linbourg, and Moreau, stand con-
spicuous for their endeavours in this department: it is to
Kirwan that we owe the able attempt to reduce the force of
contending affinities to numerical calculation; and the
fagacious Berthollet, in his "Recherches sur les lois de l'affinité",
has just now opened a new field of enquiry on this most im-
portant subject.

§ II. Cause of Chemical Affinity.

There have been only two ways of accounting for che-
mic al affinity; the one is by having recourse to a gratuitous
and inexplicable principle of sympathy, and which there-
fore is merely the symbolisation of one metaphor for another;
and the other is an endeavour, by the help of experiment
and calculation, to shew the identity of affinity and the
Newtonian attraction. The first of these, as it does not
profess to be supported by any external evidence, may be
passed by; the other requires a particular examination.

It was the opinion of Newton, and a very natural one
in his situation, that the force of attraction which he had
demonstrated to be the efficient cause of the planetary mo-
tions, of the alternations of the tides, of the deflection of
heavy bodies, and of the oscillation of the pendulum, was an effec-
tial property of matter, and, as such, the cause of chemi-
ical phenomena: perceiving acids to be some of the most
powerful agents in the production of these effects, he hence-
defined them as bodies that attract strongly, and are strongly
attracted ("acidiu m dicimus quod naturam attrabitt et atra-
bitur"). This however is to be considered merely as a con-
jecture of that great man, since no attempt was made by
him to submit to calculation any cases of affinity, or even
to obviate the weighty objections that might be brought
against the theory. The essential foundations of the New-
tonian attraction are, that the force of gravitation is in a
direct ratio to the mass or quantity of ponderable matter;
and that the square of the force is in an inverse ratio to the
square of the distance, or, to make this plainer by an exam-
ple: If the lead of a plumb-line is suspended two yards
from the side of a mountain, the attractive force exercized
upon it will be four times less than if the distance between
the lead and the mountain was only one yard; for

\[ 2 \times 2 = 1 \times 1 : 4 : 1. \]

Although, however, the judget of this law be rigorously
demonstrated in all cases where the distance is capable of
being measured, how does it apply to those inances in
which bodies are supposed to touch each other? How can
the apparent uniformity of attraction be made to explain
the infinite variety of chemical affinity? To this funda-
mental and obvious objection Buffon has given the following
reply. The distances between the several heavenly bodies
are so considerable, that they may be looked upon with
regard to their action on each other as so many gravitating
points, the slight differences in their figure being of little
or no account. If the moon and the earth, instead of being
spherical, were each in the form of a short cylinder, whose
transverse axis should be equal to their present diameter,
we must be content to acknowledge our total ignorance of the primary cause of chemical phenomena.

§ III. Of different kinds of Affinity, and the Constitution of Bodies and Science.

Whether the attractions of gravitation, of adhesion, of cohesion, and of compounding, be or be not considered as essentially the same, there is yet difference enough between them to allow of a very accurate definition of each, and this is the more necessary to be done, as there are certain confused cases of chemical affinity, in which the agency of all these forces may be distinctly perceived.

Gravitation is an attraction between two bodies at an ascertainable distance from each other, whose force is directly as the mass, and inversely as the square of the distance.

Adhesion is an attraction that takes place at the plane of contact, whose force is peculiar for each substance in nature, and in a direct ratio to the surface of contact.

Cohesion, or aggregation, is an attraction between molecules of the same nature, whose force is peculiar for each substance, and in an inverse ratio to the quantity of caloric, interposed between the particles.

Affinity, or the attraction of compounding, is that which uniting different homogenous substances, whether simple or compound, produces an uniform whole, incapable of being resolved by chemical force, and whose characteristic properties are often different, and sometimes contrary to those of its constituent parts. Thus, if running mercury is added to melted sulphur, a compound is produced, which has neither the colour, the splendour, the inflammability, the volatility, nor the specific gravity, of either of its constituent parts.

It is this affinity of compounding which is the great agent in all the operations of nature and art, that are referable to the science of chemistry, not only as an instrument of synthesis, as might be supposed from the primary meaning of the term, but also as the sole means of analysis; there being no way of dissolving a chemical compound, but by expelling its elements to the action of stronger affinities than those which retain them in union.

All the known infinities of affinity may be arranged under three classes, according to the number of elementary substances, acting on each other at the same time, and the number of new compounds thus produced.—Where only two are concerned, it may be called a case of concurrent affinity, or affinity of compounding, in which, if the force of their mutual affinity is ever so little superior to the sum of their respective degrees of cohesion, combination will take place. Thus, if a piece of quicklime is put into muriatic acid, the sum of their cohesion being less than the force of their mutual affinity, the two substances will unite together, and there will result a homogenous compound muriate of lime, possessing the properties neither of the earther nor of the acid. Tho' infinities also, in which more than two bodies unite together into one compound, come equally under this rule; as, when sulphuric acid, alumine and potash are mixed together, the result is common alum, a salt possessing peculiar properties, which could never have been inferred from those of its elements. All the cases belonging to these first class are those of concurrent affinities, where two or more substances by virtue of their attraction for each other, unite into one homogeneous body. Hence it appears, that though every substance has different degrees of affinity for other substances yet the strongest does not necessarily act to the exclusion of the rest.

It is not, however, always, nor indeed generally, the case, where more than two substances are concerned, that their respective affinities concur to produce one new substance; for it usually happens that their difference of force produces one binary compound, to the exclusion of the third element, on account of the weakness of its attraction for the new compound. Thus, if muriatic and sulphuric acid are mixed together, and an aqueous solution of pure barytes is then added, an infinitesimal combination of the barytes, to the exclusion of the muriatic acid, and this last, having also no affinity with the sulphat of barytes thus formed, or at least not sufficiently strong to overcome the sum of their several forces of cohesion, remains permanently excluded. In this instance, therefore, we see how two bodies, whose mutual affinity is very considerable, may unite together to the total exclusion of a third substance. To make this plainer, let A B C, be two substances, whose several affinity for C, is equal respectively to 4 and 7; it is obvious then, that B, will unite to C, with a force = 7 - 4 = 3 ; the first effect, therefore, of mixing these substances will be the production of B C, to the exclusion of A : and if the affinity of A, for B C, should be inferior to the cohesive attraction of the several particles of B C, for each other, it is clear that A, must be permanently excluded, notwithstanding its original affinity for C. This exclusion of the weaker by the stronger affinity takes place, not only when the two forces commence their action at the same time, but even when the weaker affinity has been previously allowed to exert its whole action on the base; thus, if muriatic acid and barytes are brought into contact, they combine and form muriat of barytes, which compound is held together by the force of affinity between the two; but when to this compound we add sulphuric acid, whose affinity for the earthy base is stronger than that of muriatic acid, an immediate change takes place, the whole of the muriat of barytes is dissolved, and the sulphuric acid combines with the barytes with a force equal to their mutual affinity minus that of the muriatic acid; or, to recur to our former illustration, if A C, are held together by a force = 4, upon the addition of B, whose force is = 7, the attraction of A to C, will be counterbalanced by 4 of B's affinity for A, and the remainder of B's force will produce the combination B C, = 2 of the original attraction between B and C. This, and similar cases are naturally illustrated by supposing C, to have a disposition to unite with A and B, A, being at first the only present, the combination A C, is produced; afterwards, when B, offers itself, C, having a preferable attachment to B, quits A, and forms the combination or partnership B C. It is this metaphorical explanation which induced Bergman to call all those infinities where a compound already formed is separated by the action of superior affinities, cases of elective attraction; and because in the above example only three substances are concerned, one new compound being formed, and the element of weakest affinity being excluded, it is properly distinguished as a case of single elective affinity, which forms the second class, ranking immediately after that of concurrent affinity.

From the consideration of single elective affinity, the progress is easy to that of double, or, more properly speaking, compound elective affinity. Suppose the affinity between sulphuric acid and potash, the constituent parts of sulphat of potash, to be = 12, and the affinity of nitrous acid for potash = 9, and that of oxyd of mercury for sulphuric acid = 8, it is evidently impossible to decompose sulphat...
affinity evident enable application, it this and which is concerned, inferior break neverthelless in howevcr, that number but =17. compound is fulphat and elements impracticable to weak which = doing, if, fictitious are compound acid potash and quiescent elements are addition let troubles with fulphuric fo that, unfolding the fulphat of mercury the two agents in this decomposition, have also a strong attraction for each other, tending to unite them into the compound salt nitrat of Mercury, let this force be = 4; it is evident then, that, upon the addition of nitrat of mercury to fulphat of potash, there are four distinct affinities acting two by two against each other. The quiescent affinities, or those which resist decomposition, are the attraction between sulphuric acid and potash = 12, and that between nitrous acid and mercury = 4, the sum of which is = 16. The divellent affinities, or those which tend to break the original combinations, are those of nitrous acid and potash = 9, and of sulphuric acid and mercury = 8, which together are = 17. Now as 17 is to 16, so is the sum of the divellent, to that of the quiescent affinities. On the addition, therefore, of nitrat of mercury to fulphat of potash, there will be a decomposition of both salts, and the formation of two new ones, nitrat of potash and fulphat of mercury. This is an example of compound elective affinity, which may therefore be defined as the resolution of a compound by means of the united affinities of its elements for those of another compound. It is obviously impossible, by means of double elective attraction, to obtain either of the elementary parts of a body in a separate uncombined state; but although in this respect it is inferior to single elective affinity, it is nevertheless infinitely superior in the vast variety of its application, and in its rendering not merely possible but even easy, a number of decompositions, which are absolutely impracticable by single elective attraction. Almost all the substances in nature are compounds, and the changes that we see continually operating around us, are brought about by very complicated affinities; so it is in nearly every process of art in which chemistry is concerned, a thorough knowledge, therefore, of the general principles of compound affinity is absolutely necessary to be acquired at the very threshold of the science.

From what has been already said, it is obvious that every chemical fact arranges itself under one or other of the three species of chemical affinity; and hence may be conceived the obligation that science is under to Geoffroy, for his ingenious method of arranging cases of single elective attraction, so as to enable the enquirer to discover in an instant any particular fact that he is looking for, or to compare at a single glance, the results of numerous and complicated experiments.
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### TABLE II.

**Single Elective Affinities, from Pearson and Bergman.—In Water.**

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TABLE.
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Of these Tables, the first is a transcript of the original one, published by Geoffroy, and which merits preservation as an historical memorial of an important era in chemical science. The second and third are, with a few alterations, copies of Dr. Pearon's enlarged edition of Bergman's tables.

Table II. contains the elective affinities, as far as they have been ascertained, of sixty of the most important chemical substances. All these take place through the medium of water, in which one or both of the substances are dissolved, the temperature therefore, in all the cases here mentioned, cannot exceed 212°Fahrenheit. At the head of each column, in larger characters than the rest, and divided from them by a horizontal line, is the name of the substance whose affinities are the subject of the rest of the column; and these are arranged in the order of their intensity, so that the substance of strongest affinity with that which is at the head of the column, stands the nearest to it. Thus in the column of lime, No. 8, the substances from oxalic acid downwards, present a decreasing series of the affinities of lime, hence the combination of lime with any substance in the column, may be decomposed by any of the bodies that precede this substance, but is not broken by those which succeed it. The use and application of this table is obvious. If, for example, it is required to decompose an aqueous solution of muriatic of soda (common salt) by tingle affinity; the first inquiry is, which of the two component parts is to be set at liberty; suppose it to be the acid, I am then to find a substance whose affinity with soda is greater than that of muriatic acid, for this purpose I turn to the column of soda No. 11, and find that by the addition of either sulphuric or nitric acid, I shall be able to decompose the salt in question, so as to obtain its acid in a disengaged state: if, on the other hand, the alkaline base is wanted, I find, upon inspecting the column of muriatic acid, No. 18, that the affinity of potash for muriatic acid is greater than that of soda; and therefore, by this means, I obtain muriat of potash and free soda. Again, if citrat of lime is to be decomposed, I find, by referring to citric acid, column 30, that it is impossible to do it so as to set at liberty the lime, because this stands the first in the column of citric acid; but from the column of lime No. 8, it appears that no less than thirteen acids will each of them separate the lime, so as to leave the citric acid disengaged. If the decomposition of sulphat of Barytes is required, it is plain from the column of Barytes, No. 6, that it cannot be decomposed as to let the sulphuric acid at liberty; it is also equally obvious from the column of sulphuric acid, No. 14, that the Barytes cannot be separated, sulphat of Barytes therefore is undecomposable in water by tingle affinity.

In Table III. the affinities of forty-three substances, without the medium of water, and at a temperature equal to the fusing of at least one of the substances in each instance, are registered: the application and construction of this table is precisely the same as of the former; to enlarge upon it is therefore unnecessary: it is curious, however, to observe how the order of affinities is modified by temperature; for we find that sulphat of Barytes which is undecomposable by tingle affinity in water, may at a high heat be decomposed with separation of the Barytes, by potash or soda; and with separation of the acid by the phosphiomorphic, boracic or arsenic acids.

The construction of Geoffroy's tables, although admirably well suited to express the general results of tingle affinity, is deficient as a method of registering the conclusions from single and unconnected experiments; on which account the system of Bergman, either invented or at least first brought into general use by him, have been universally adopted for this purpose. The register of an experiment in affinity ought not to be considered as complete, except it expresses clearly, 1st, the result, i.e. whether or not any change is effected; 2d, the menstrum, whether water, alcohol, or any other fluid in which the substances are dissolved; 3dly, the temperature of the substances at the time of experiment. 4thly, the nature of the new substances, whether they are precipitated from the menstrum, or remain dissolved, or are sublimed. Now all these circumstances are expressed clearly and concisely in the following schemes. Suppose the experiment is made to decompose muriat of potash in water at the common temperature, by soda, it will be found that no change...
change takes place, this is expressed by the following diagram, or scheme.

\[
\begin{align*}
\text{Muriat} & \quad \text{Muriatic acid} & \quad \text{Soda} \\
\text{of} & \quad \text{water } 69^\circ \\
\text{Potash} & \quad \text{Potash}
\end{align*}
\]

The substance to be decomposed is placed on the left hand, and is immediately followed by a bracket whose point is turned towards the compound; within the bracket are the names of the two simple substances of which the compound is formed, and parallel to one of them is the substance by whose affinity the decomposition was expected: no change however taking place, the scheme is left thus imperfect; in the centre is the name of the menstruum and the temperature in degrees of Fahrenheit’s thermometer.

\[
\begin{align*}
\text{Muriat of Potash.} & \\
\text{Muriat of Soda.}
\end{align*}
\]

This scheme expresses, that if to a boiling hot solution of muriat of soda in water, potash be added, a decomposition takes place; muriat of potash being formed, and the soda being set at liberty: the first line under the soda, and the point lines bracket under muriat of potash, express that both substances remain in solution.

\[
\begin{align*}
\text{Sulphat of Strontian.} & \\
\text{Sulphat of Magnesia.} & \\
\text{Nitrat of Potash.} & \\
\text{Carbonat of Potash.} & \quad \text{Nitric acid.} \\
\text{Sulphat of Soda.} & \quad \text{water } 69^\circ \\
\text{Sulphat of Magnesia.} & \quad \text{Magnesia} \\
\text{Muriat of Lime.} & \\
\text{Muriat of Ammonia.} & \quad \text{Fire.} \\
\text{Proof Spirit.} & \\
\text{Solution of Sulphat. Soda.} & \quad \text{Sulphated Soda.}
\end{align*}
\]

The above five schemes illustrate all the remaining cases

of simple affinity: in the first, we see that strontian added to sulphated magnesia dissolved in water, at the ordinary temperature, decomposes it, and produces sulphat of strontian, and magnesia, both of which are precipitated. In the second, the addition of nitric acid, to a solution of carbonated potash, produces nitrat of potash remaining in solution, while the carbonic acid is volatilized. In the third, sulphated magnesia with soda, produces sulphat of soda remaining in solution, and the magnesia is precipitated. In the fourth, dry muriat of ammonia and lime, heated together, produce ammonia which is volatilized in the form of gas, and muriat of lime remains behind. In the fifth, a solution of sulphated soda being added to alcohol, the water and alcohol unite together, while the sulphat of soda is precipitated.

It is impossible to arrange the results of experiments in compound affinity in a tabular form; accordingly, schemes framed on the same principles as those for single affinity, have been adopted for the convenient registering of all the known facts on this subject. For example, the facts that sulphat of lime and muriat of potash do not decompose each other; and that muriat of strontian, and sulphat of ammonia do decompose each other, together with the circumstances of such experiments are expressed in the following scheme.

\[
\begin{align*}
\text{Sulphat of Strontian.} & \quad \text{Sulph. a. Potash} \\
\text{Sulphat of Lime.} & \quad \text{Water } 69^\circ \\
\text{Muriat of Ammonia.} & \quad \text{Mur. a. Ammonia.} \\
\text{Muriat of Lime.} & \quad \text{Mur. a. Lime.} \\
\text{Muriat of Potash.} & \quad \text{Potash.} \\
\text{Proof Spirit.} & \\
\text{Solution of Sulphat. Soda.} & \quad \text{Sulphated Soda.}
\end{align*}
\]

§ IV. Methods of estimating numerically the force of elective Affinities.

Notwithstanding the vital importance of Geoffroy’s tables, and of all later ones constructed on the same plan, it is obvious that we can only learn from them the greater or less degree of affinity which different substances have for the same body, according to the order in which they are arranged: and though this is sufficient for foretelling the result in cases of single elective affinity, yet in more complicated cases, where the mutual attractions of four or more substances are concerned, the want of a numerical expression for the force of affinity, in order to infer with any probability the result of an untried experiment, must have forcibly impressed the mind of every chemist. Thus, if the result of a mixture of nitrat of potash with acetate of lime is required, all that can be learnt from the inspection of the tables is, that the affinity of nitric acid for potash is stronger than for lime, and that the affinity of lime for acetic acid is weaker than that for potash, or, to express it in a tabular form,

\[
\begin{align*}
\text{Nitrat of} & \quad \text{Lime.} \\
\text{Acetic of} & \quad \text{Potash.} \\
\text{Lime.}
\end{align*}
\]

hence we have,

[Quiescent affinities] = \(s + w\).

[Divalent affinities] = \(s + w\).
And it is impossible hence to conclude whether or not any chemical change will take place; but if we find the affinity of nitrous acid for potash = 12, of the same for lime = 7; of acetous acid for potash = 14, of the same for lime = 6,

\[
\begin{align*}
\text{Nitr.} & \quad \text{Lime} \\
\text{Potash} & \quad \text{Acet. a.} \\
& \quad \text{of} \\
12 & + 7 = 19 \\
& + 14 = 20
\end{align*}
\]

we shall then have

Quiescent affinities = 12 + 7 = 19

Divalent affinities = 6 + 14 = 20

and hence we may with certainty infer that a double decomposition will take place, with a force equal to the excess of 20 over 19.

Chemical philosophers have not, however, by any means agreed on the method to be followed for the attainment of this definable object; some with M. Wenzel, consider the time requisite for effecting solution as the expression of the force of the affinity between a substance and its menstrum; others with Fourcroy, believe the intensity of this to be more accurately measured by its reversion to decomposition, than by its rapidity in uniting bodies: according to Macquer the force of affinity is expressed by the facility with which bodies unite, compounded with the force by which they continue united. Kirwan, on the other hand, has estimated the affinity of acids for their bases by the different proportions of them that they require for saturation. And from this very diversity of opinions may be inferred the great difficulty of the subject.

According to M. Wenzel, the disposition to chemical union between bodies varies with the figure of their constituent parts; and, regarding the action of meniltra upon them as a mere mechanical impulse, subject to calculation upon the principles of statics, he concludes, that the rapidity of solution is an exponent of the force of affinity; and therefore, that the affinity of different bodies with any common menstruum, is in an inverse ratio of the time required for their solution. To prove this, he procured equal cylinders of silver, copper, lead, and other metals in a state of purity, having weighed them, he covered them with varnish so as to leave only one end exposed to the action of the solvent; they were then separately suspended in equal quantities of nitric acid, and left to its action for an hour; being then taken out and freed from their varnish, they were weighed, and the quantity dissolved of each was found to correspond with the order of their respective affinities for the acid. This large conclusion of M. Wenzel's from so partial an experiment, is however, more strikingly contradicted by facts: the cylinders of silver and lead will be scarce perceptibly acted on in muriatic and sulphuric acids, whereas these will precipitate a nitrous solution of either metal with the greatest ease; a multitude of similar obvious contradictions to the rule might be mentioned, if need were, besides that M. Wenzel's method, if ever so accurate, is capable only of being applied in cases where one of the substances is a solid.

The resistance which the parts of a compound offer to any force that is employed to separate them, offers a probable method of estimating the degree of their mutual affinity: since however the union is chemical, it is plain that mechanical means of separation cannot be used for this purpose, and there are very few chemical agents that can be

\[
\begin{align*}
\text{Table} \\
\text{Barytes} & \quad 66 & 62 & 36 & 28 & 14 \\
\text{Potas} & \quad 62 & 58 & 32 & 26 & 9 \\
\text{Soda} & \quad 58 & 50 & 31 & 25 & 8 \\
\text{Lime} & \quad 54 & 44 & 24 & 19 & 12 \\
\text{Ammonia} & \quad 46 & 38 & 21 & 20 & 4 \\
\text{Magnesia} & \quad 50 & 40 & 22 & 17 & 6 \\
\text{Alumine} & \quad 40 & 36 & 18 & 15 & 2
\end{align*}
\]

made the subject of calculation. The only method proposed by Fourcroy, and one that he himself allows, is applicable to the greatest number of cases, is to ascertain the thermometrical temperature necessary to effect a separation. It is certain that the application of high degrees of heat in many cases opposes the action of chemical affinity: the force of affinity for caloric (heat) is also probably different in every natural substance, we know in many cases, as in the burning of lime, the reduction of mercurial oxys, &c. that more caloric is capable of separating carbonic acid from lime, oxygen from mercury, &c. it is not therefore a priori improbable, that the affinity of any acid for the different alkaline, earthy, and metallic bases should be truly expressed by the various quantities of caloric, as indicated by the degrees of the thermometer and pyrometer, required for the decomposition of the different salts. But although this rule certainly holds good in some cases, yet the greater number of compound salts are incapable of being decomposed by the greatest quantity of mere caloric that we are able to apply, and almost all the cases of chemical affinity through the medium of water, are also incommensurate with the scale proposed.

In consequence of these difficulties both Fourcroy and Morveau have agreed in proposing an arbitrary number as the basis of their respective numerical series, all the other terms of which are brought by approximation and comparison with the results of known experiments, to bear certain proportions to the standard term, and to each other.

It is plain, therefore, that a table, constructed on these principles, can never be anything more than an approach towards the truth; and even this can only be effected by repeated corrections according to the results of a vast multitude of experiments; and in all untired cases it is reduced merely to an argument from analogy. In order to verify the numbers in the following short table of Morveau, no less than 490 experiments would be necessary, and probably more than half these would require separate adjustments of all the numbers in the table; it may be conceived therefore how many centuries of incessant labour would be required to tabulate in this manner with any accuracy, even the binary combinations of the present chemical substances.

How far this Table, which has already undergone repeated corrections by its able author is to be depended upon, a few examples will show.

If acetite of barytes be added to sulphat of soda, a decomposition will take place, and there will be produced fulphat of barytes and acetite of soda: now according to the Table, the sum of the

\[
\text{Quiescent affinities } = 28 + 58 = 86
\]

Divalent affinities

\[
\text{of potash and acetite of lime mutually}
\]
mutually decompose each other, forming nitrate of lime and acetate of potash, but by the Table:

Quiescent affinities = 58 + 21 = 79

Diluent affinities = 44 + 26 = 70

The Table, therefore, in this instance, is erroneous.

Nitrate of soda and muriat of ammonia mutually decompose each other; but by the Table:

Quiescent affinities = 58 + 21 = 79

Diluent affinities = 38 + 31 = 69

Nitrate of potash and sulphate of ammonia mutually decompose each other; but by the Table:

Quiescent affinities = 58 + 26 = 84

Diluent affinities = 38 + 21 = 69

Hence it is obvious the great probability of error in all calculations and real mixings founded on this Table.

Mr. Kirwan's numerical system of affinities is founded on the proportion of base necessary to saturate a given quantity of acid; and as no one has treated this important subject with such unwearied ability and profound investigation as the learned president of the Royal Irish Academy, it will be necessary to enter somewhat minutely into an examination of the fundamental parts of his system.

The first object with Mr. Kirwan was to ascertain exactly the quantity of real acid in each of the three mineral acids, at a determinate specific gravity (by real acid is to be understood acid free from all water, except such as is necessary to its very constitution). For this purpose, affirming that muriatic acid, in the form of gas, is free from all mixture with water, he procured 100 cubic inches of this acid gas, and found its weight to be = 60 grains, the barometer standing at 29.6, and the thermometer at 57°. The barometrical pressure remaining the same, and the temperature being = 49°, he found that 10 grains of water absorbed an equal weight of muriatic acid gas, and the liquid acid thus formed occupied the space of 13.3 grains of water; hence the specific gravity of this acid was equal to about 3.5, and that of a muriatic acid equal in purity to the acid gas, and of the same degree of condensation as the real acid contained in the above mentioned liquid acid, would be equal to 3.03.

Taking this, therefore, as the specific gravity of real muriatic acid, he next established the proportion of this contained in muriatic acids of different specific gravity. Not being able to obtain nitric or sulphuric acids in a state of gas, he calculated the proportion of real acid contained in these liquids, upon the supposition that equal quantities of the three acids, reduced to the state of real acid, required equal weights of potash for their saturation: the results of these calculations being found to accord with the actual specific gravities of these acids, diluted with different known quantities of water, he hence inferred the truth of the principle that he had assumed. Proceeding from these data he next ascertained the quantity of real acid, and real bases, in all the mixtures formed by the three acids, with alkaline and earthy bases, and comparing these results with the known order of affinity of the bases for the acids, he drew the general conclusions, "That the quantity of real acid necessary to saturate a given weight of any of the bases, is in an inverse ratio to the affinity of the bases with the acid; and that the quantity of any of the bases necessary to saturate a given quantity of any acid, is in the direct ratio of the affinity of the base for the acid." Or in other words, that, of two bases, which has the strongest affinity for any given acid, requires the least quantity of acid for its saturation; and a given quantity of acid will take up a greater quantity of one base than of another, in proportion to the force of its affinity for the base. If these deductions are legitimate, the following Table, containing the quantities of base required to saturate 100 parts of real acid, is also a true expression of their respective forces of chemical affinity.

<table>
<thead>
<tr>
<th></th>
<th>Potash</th>
<th>Soda</th>
<th>Lime</th>
<th>Ammonia</th>
<th>Magnes.</th>
<th>Alumine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulphuric acid.</td>
<td>215</td>
<td>165</td>
<td>90</td>
<td>90</td>
<td>80</td>
<td>75</td>
</tr>
<tr>
<td>Nitric acid.</td>
<td>215</td>
<td>165</td>
<td>96</td>
<td>87</td>
<td>75</td>
<td>65</td>
</tr>
<tr>
<td>Muriatic acid.</td>
<td>215</td>
<td>158</td>
<td>89</td>
<td>79</td>
<td>71</td>
<td>55</td>
</tr>
</tbody>
</table>

Mr. Kirwan's method has, however, been examined with much care, by two of the ablest chemical philosophers that the age can boast of, M. M. Morveau and Berthollet; and a number of very serious objections have been brought against it. These may be divided into those which call in question the essential principle of the force of affinity being in direct ratio to the quantity of base, and those which only relate to the accuracy of particular experiments.

The essential objections are contained in the following experiments of Morveau. A quantity of sulphuric acid containing, according to the Table of Kirwan, 100 grains of real acid, required, for saturation, 201 grains of crystallized carbonate of potash. A quantity of nitric acid, containing also, according to Kirwan, 100 grains of real acid required 302 grains of the same salt for saturation. A quantity of muriatic acid, containing 100 grains of real weigh, required 905 grains of the same salt. Hence it appears either that Mr. Kirwan's fundamental calculations are erroneous, or that the very principle of his whole system is false; for not only do equal quantities of real acids require for their saturation different quantities of the potash, but the quantity of base required is in an inverse ratio to the force of affinity, being exactly the reverse of the principle that Kirwan lays down.

Again, according to Kirwan's corrected tables,

(i) Sulphat of potash consists of Acid 100
   Potash 108.7

(ii) Sulphat of lime - - Acid 100
   Lime 80.6

(iii) Nitrat of potash - - - Acid 100
    Potash 83.33

(iv) Nitrat of lime - - - Acid 100
    Lime 34.4

Now, if a solution be made in water of such a quantity of sulphat of potash as contains 100 grains of real acid, and to this a sufficient quantity of nitrat of lime be added to convert the whole of the sulphuric acid into sulphate of lime, it is evident that 80.6 grains of lime will be required, and 234.4 grains of nitric acid will be left at liberty; but this quantity of nitric acid would require for saturation 105.42 grains of potash, whereas the decomposed sulphat of potash will furnish only 108.7 grains; there should remain therefore 64.87 grains of nitric acid in excess, or uncombined.
with any base. If, however, we put this calculation to the test of experiment, we shall find whether the liquor be diluted, or concentrated, or even brought to crystallization, that there is not the smallest trace to be found of any disengaged acid.

Besides the above, there are several other important objections to Mr. Kirwan's theory, especially to that part of it in which he supposes equal quantities of real sulphuric, nitric, and muriatic acids, to require for their saturation the same proportion of potash. The force of these objections has been acknowledged by Mr. Kirwan in his treatise "on the strength of acids and the composition of neutral salts?" he has, in consequence, deduced the proportion of real acid, in nitrous and sulphuric acids, from other less exceptionable data; so that his numerical table of the strength of affinities is now by far the most correct of any that has yet been constructed; and his fundamental principle, that the quantity of base required to saturate a given quantity of real acid, is a true expression of the force of affinity between the acid and the base, seems to receive additional confirmation in proportion to the advance of chemical knowledge.

The following corrected table of the quantity of base taken up by 100 parts of sulphuric, nitric, muriatic, and carboxic acids, is copied from Mr. Kirwan's essay on the analysis of mineral waters.

<table>
<thead>
<tr>
<th></th>
<th>Potash</th>
<th>Soda</th>
<th>Ammon.</th>
<th>Barytes</th>
<th>Strontian</th>
<th>Lime</th>
<th>Magnesia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulphuric</td>
<td>121.48</td>
<td>78.32</td>
<td>26.05</td>
<td>200.0</td>
<td>138.0</td>
<td>70.0</td>
<td>57.92</td>
</tr>
<tr>
<td>Nitric</td>
<td>117.7</td>
<td>73.45</td>
<td>40.35</td>
<td>178.12</td>
<td>116.86</td>
<td>55.7</td>
<td>47.64</td>
</tr>
<tr>
<td>Muriatic</td>
<td>177.6</td>
<td>136.2</td>
<td>58.48</td>
<td>314.46</td>
<td>216.21</td>
<td>118.3</td>
<td>89.8</td>
</tr>
<tr>
<td>Carboxic</td>
<td>95.4</td>
<td>149.6</td>
<td></td>
<td>354.5</td>
<td>231 +</td>
<td>122.0</td>
<td>50.0</td>
</tr>
</tbody>
</table>

§ V. Laws of Affinity.

Before the subject of affinity was so well understood as it is at present, or rather while chemists were not yet aware of the extreme difficulty and uncertainty of their researches, all the known facts were collected and classified, and from them was deduced a number of general laws of affinity, most of which have since been overthrown, or essentially modified by later more accurate investigations. The enumeration of these laws, with such restrictions as have been induced by modern discoveries, will form the subject of this section.

1. Chemical affinity takes place only between bodies of different natures.

This necessarily follows from the definition given in the third section, by which chemical affinity was distinguished from the attraction of aggregation or cohesion, by this very circumstance.

2. Affinity takes place only between the ultimate particles of bodies.

Where two simple substances enter into combination, this may be allowed to be the case, but certainly does not happen when compound bodies unite with each other: thus when oxygen and hydrogen combine together into water, and oxygen and sulphur into sulphuric acid, there is probably an affinity between the ultimate particles of oxygen with those of hydrogen in one case, and those of sulphur in the other; but when water and sulphuric acid combine together, the affinity takes place between particles of water and acid, each of which is reducible into its chemical elements, and is, therefore, not in a state of ultimate division.

3. The affinity which any one body has for a series of others, is not equal in force towards each individual of that series.

It is probable that no two substances can be found, whose separate affinity for a third is perfectly equal in similar circumstances; that such instances, if they ever occur, are at least very rare, is obvious from all that has been said concerning single and compound elective affinity; the whole of which essentially depends upon this law, and is at the same time a demonstration of its truth.

4. Chemical affinity may arise upon more than two substances at the same time, and unite them into one compound.

A considerable number of triple salts has lately been discovered which seem to countenance this law; perhaps,

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proportion as its surfaces are multiplied by grinding it down to powder, so is its attraction of aggregation diminished; and the action of the sulphuric acid on the lime, to the exclusion of the thoric acid, becomes more energetic. It would be more correct to say, that the effect of chemical affinity is inversely as the attraction of aggregation; because its absolute force remains constantly the same, and it only appears to increase on account of the diminution of its antagonistical attraction. Thus, let the chemical affinity of lime and thoric acid be \( r \), and the force of its cohesive attraction, when crystallized \( = x \), the sum of its quiescent affinities will be \( = r + x \). Let the affinity of sulphuric acid for lime, or the divalent affinity \( = y \); it is obvious that no decomposition can take place, although the chemical divalent affinity is superior to the quiescent one; but, when the affinity is reduced by mechanical trituration to be only \( z \), then the strongest chemical affinity will become efficacious, and a decomposition will take place.

The aggregation of bodies is, however, more frequently overcome by the action of solution by water, or fusion by fire, and these phenomena are so commonly made use of that the habit is infallibly acquired of considering solutions of substances in water or fire, as equally simple with the same bodies when in a concrete state. It is from this oversight that all the apparent exceptions to this law have originated.

If, says Morveau, we apply heat to a mixture of acid and water, or of alcohol and water, which are all chemical combinations, we only augment the degree of their rarefaction; but instead of thus promoting their union we separate them; the same is the case with those metallic oxides that are decomposable by heat, and of all the compound salts, one of the principles of which is more fixed than the other. If, however, caloric is capable of being exhibited in an uncombined state, and of being distinguished from all other substances by peculiar sensible properties, if these are modified and changed by combination with different bodies, if caloric may be transferred from one body to another, according to an ascertained order of chemical affinity; and finally, if it may be separated from its combination, and again exhibited with all the original properties that were at first characteristic of it, what reason is there to deny that it is so far a material substance, as to be capable of chemical combination? To recur, therefore, to the examples adduced by Morveau; if to the compound of alcohol and water a certain quantity of caloric be added, it will be divided between the two ingredients, according to their respective affinities, and in proportion to the addition of this new substance the original affinities of the water and alcohol be weakened: the alcohol being the former saturated with caloric, will assume a gaseous form, and being affixed by the attraction of gravitation, will separate from the water. In all this there is nothing inconsistent with the general order of chemical agency; whereas the reasoning of Morveau involves a contradiction in terms: for if the force of chemical affinity is capable of being overcome by rarefaction, and if rarefaction is nothing but the greatest possible resolution of an aggregate, it follows that the absolute force of chemical affinity may be overcome by the negation of the attraction of aggregation.

7. When two or more substances unite to form a chemical compound, they lose their own particular properties, and those of the new compound are not to be inferred from the properties of its elements.

It is not meant by this, that the properties of a compound are always, and in every particular different from those of its constituent parts, only that they are by no means intermediate between them. The reverse of this was maintained by the earlier chemists, and accordingly Stahl taught that fats were composed of earth and water, because he limited their properties to be a medium between those of these two substances. It will probably be thought at present that the very instance which Stahl has selected to prove his maxim is rather conclusive on the contrary side; for numberless other more exceptionable examples occur in every department of chemistry. Tin and iron are both of them very ducile, but if equal parts of the two are melted together, the result is a brittle alloy. Magnesia is taftable, sulphuric acid is intensely sour, combine them, and we obtain a bitter salt. Alkali is colourful, syrup of violets is purple, the product upon mixture is green: carbonic acid and ammonium, when separate, are gaseous, mix them, and they become solid. Amalgam of lead, and of bismuth are solid, by combination they form a liquid.

8. The capacity for caloric is always changed by chemical combination.

This law is, in fact, only an offset from the preceding; and for the explanation of it, see Caloric.

§ VI. Anomalies.

All those cases of chemical affinity, which either really or apparently contradict the general laws that have just been cited, may be reduced to two classes; viz. those depending on the variable force of affinity itself, and those occasioned by the action of other antagonistic attractions.

1. The whole system of Bergman depends on the absolute uniformity of elective attraction, on its being a constant force, so that if (the temperature and menritrum remaining the same) the combination A B is decomposed by C, to the exclusion of B, the new substance A C cannot be again separated by B, so as to reproduce A B, and leave C at liberty. With till more rigor does this apply to all the methods of eliminating numerically the excess of one affinity over another, independently of the relative quantities of the substances employed. It appears, nevertheless, from Berthollet's treatise on this subject, that in almost all cases of change produced by elective affinity, there is not a total transfer of the bale, but a partition of it between the two opposite attracting substances in a compound ratio of the relative force of affinity and quantity of each. That in many cases the excess of quantity may supply the deficiency of force, and therefore that the mafs must be carefully taken into consideration, together with the specific force in the construction of tables of affinity. Barytes is properly placed by Bergman at the head of the column of the affinities of sulphuric acid, in water; not however because it is impossible for sulphat of barytes to be decomposed by any other substance, but because, if equal quantities are taken of all the substances that combine with sulphuric acid, barytes will be found to decompose the greatest proportion of any other sulphat; and of the sulphat of barytes the largest part will remain undecomposed by a quantity of any body equal in weight to the barytie part of the salt in question. Thus, if equal parts of pure potash and sulphat of barytes are boiled together to dryness, in a small quantity of water, it will be found that the sulphuric acid has been divided between the two bales in the compound ratio of their mafs and their force of affinity; the greater part of the barytie sulphat will be found undecomposed, a small quantity of barytes will be found at liberty, most of the potash...
potash will also be uncombined, but a certain proportion
will be united with the sulphuric acid which the barytes
has lost, in the form of sulphat of potash. To make this
matter plainer, let us examine the results of the decomposi-
tion of sulphat of barytes by potash, and of sulphat of
potash by barytes, as calculated from Mr. Kirwan's data.
Sulphat of barytes contains 3.33 parts of sulphuric acid and
6.66 of barytes; if therefore we take ten parts of this
salt and an equal quantity of potash we have,

\[
\begin{align*}
3.33 & \text{ sulphat. a.} \\
6.66 & \text{ barytes} \\
10 & \text{ potash}
\end{align*}
\]

and the affinity of equal parts of barytes and potash for
sulphuric acid being : 2 : 1.24 the acid, if shared between
them in the compound ratio of their mafs and their affinity,
will be 13.32 to barytes, and 12.1 to potash: now the
composition of sulphat of barytes being as already stated,
and that of sulphat of potash being 54 of alkali to 45 of
acid, there will remain undeveloped 5.22 parts of barytic
sulphat; 5.18 of barytes will be set at liberty; 3.47 of
sulphat of potash will be produced, and 8.11 of potash
will continue uncombined. If, on the other hand, we mix equal
parts of sulphat of potash and barytes we shall have

\[
\begin{align*}
5.48 & \text{ potash} \\
4.52 & \text{ sulphat. a.} \\
10 & \text{ barytes}
\end{align*}
\]

and the acid being divided between the bases in the com-
pond ratio of their mafs and force of affinity, will give
6.63 parts to the potash and 20. to the barytes: there will
then be 2.48 parts sulphat of potash remaining unde-
veloped, and 3.24 barytes uncombined; 4.12 parts potash will be
set at liberty, and 10.14 sulphat of barytes will be produced.

It is not merely in a few inferences that this partition
of one body between two others, according to their respective
masses and affinities, takes place, there being scarcely any
example to the contrary. Lime has a weaker affinity than
potash for sulphuric acid; yet lime, when acting on an equal
weight of sulphat of potash, is capable of partly decom-
poling it: the same happens with phosphat of lime and
potash, with sulphat of potash and soda, &c.

From these and similar experiments it follows, that when
a compound of two substances is acted on by any third
body, that part of the compound which is the subject of
combination, is shared between the two remaining elements,
not only in the proportion of their respective degrees of
affinity, but also according to their quantity; these two
substances therefore must be considered as opposite forces,
dividing between them the subject of combination, accord-
ing to the ratio of their intensity, and this intensity depends,
not only on the energy of affinity, but also on the quanti-
ty, so that by varying this in either, the effect produced
will be proportionally modified.

Another consequence is, that the action of a substance
in opposition to any particular combination decreases, as it
advances towards saturation; and as the force of this is
continually diminishingso the power of the substance
tended is decreasing according to its increased quantity,
and this effect takes place till the antagonistic forces exactly
counterpoise each other.

A third inference is, that in cases of precipitation the pre-
cipitate necessarily retains a portion of the substance with which
it had before been combined; for during the instant of this
action, a partition is made of the subject of combination in
proportion to the affinities and masses of the substances em-
ployed.

2. The variable ratio of the force of affinity between
the two elements of particular compounds, is another ano-

maly and occasional source of error. Thus the black oxyd
of manganize readily parts with a portion of its oxygen,
by the action of such a portion of carbonic acid as will just
read to set it on fire; but after it has parted with this excess of
oxygen, the affinity which unites it to the remainder, fol-
lows a much higher ratio, so that the utmost possible ac-
cumulation of carbonic acid is unable to produce any further
decomposition: hence the affinity of metallic manganese for
oxygen is very high, and the affinity of the white oxyd
of manganise for oxygen is much lower than it ought to
be, provided the affinity of these two substances was in a
uniform ratio, according to their relative proportions. So
again, the acellular sulphat of barytes is decomposed by
an equal quantity of water into the common barytic sul-
phat and sulphuric acid, yet no addition of water can pro-
duce any further decomposition of this earthy salt; the
general fact, therefore, of mafs compensating for inferiority
of attractive force does not here hold good. Another
striking example of the same is the decomposition of tar-
trite of potash by ac visit acid, into acellular tartarite of
potash and acetite of potash; and the resistance made by
the acellular tartarite to all further decomposition by any quantity
of acetic acid. The same may be said of the affinity of mu-
naristic acid to oxygen, and of its base for the same substan-
c.

3. The order of chemical affinities is often modified
by the attraction of saline vegetation, a power belonging to
all but the deliqueful salts, which compels them to separate
from the water that holds them in solution, and rise in
the form of vegetables up the sides of the vessel in which they
are contained; the efflorescent salts are more particularly
subject to this attraction, and consequently their affinities
are the most frequently disturbed by this force. Muriat
of soda is scarcely, if at all, decomposed by carbonated lime
in water; but if, according to Scheele's process, lime and
muriat of soda are mixed with only so much water as will make
the mass into a paste, and this is exposed to carbonic acid
gas, a saline efflorescence will shortly make its appearance,
polluting all the properties of carbonated soda, and the
muriat of lime in a deliqueulent state will be found at the
bottom of the vessel; but if the carbonat of soda is dis-
olved and added to the muriat of lime, an immediate
decomposition will take place, and carbonated lime and
muriat of soda will be produced. A similar effect happens
when iron is moistened with muriat of soda and exposed to
carbonic acid gas.

4. The last cause of anomaly that need be mentioned,
arises from the affinity of water with substances dissolved
in it, and this is a very important circumstance to be aware of,
as it accounts for the otherwise inexplicable phenomenon of
what are called incompatibie faults in certain mineral waters.
Bergman, Kirwan, Cavendish, and other eminent chemists,
have discovered in mineral waters the co-existence of small
quantities of various faults, which, in common circumstances,
decompose each other; thus the waters of Rathbone-place,
according to Cavendish, contain in the pint 0.9 of a grain
carbonated ammonia, and 1.2 grains of sulphat of lime.
A gallon of Harrowgate water contains 13 grains muriated
lime, and 5 grains sulphated magnesia. But in both these
cases, on account of the small quantity of salt compared to
that of the water, the affinity of this last, aided by its mafs,
is capable of overcoming the excess of the deliveuent, over
the quiescent affinities of the faults that it holds in solution;
and is obviously the true reason of the fact, for if, by eva-
aporation, a considerable proportion of the water is taken
away, the deliveuent affinities of the two faults become effica-
cious, and decomposion takes place.

For other subjects in some measure connected with the

important
important subject of chemical affinity, see Adhesion, Crystalization, Saturation, Solution.


Affection, is a name given by the Arabians to opium; and also to an elec trity, in which opium is an ingredient.

Affirmation, affirmative, in Logic, a positive proposition, alleging the truth or reality of something.

Affirmation is defined, by the Logicians, an act whereby we attribute one idea to another; as supposing it to belong, or agree to it. —As when, conceiving perfection to agree to the Deity, we say, God is perfect.

This, on other occasions, is called Innuunciation, proposition, composition, and judging.

Affirmation, in Law, signifies the ratifying or confirming a former law, or judgment.

We say, to affirm a judgment: the house of lords, on an appeal, affirmed the decree of the Lord Chancellor, or of the lords of seisin in Scotland.

Affirmation is used in the same sense. 8 Hen. vi. c. 12.

Affirmation is also used in Grammar, by some refers upon that art, for what is usually called a verb; because the office of that part of speech is to express what we affirm or attribute to any subject.

Affirmation is also used for a solemn form of attesting the truth, allowed to be used by the Quakers, instead of an oath, which they hold absolutely unlawful to take.

See the form of the affirmation, &c. under the article Quaker.

Affirmation is of divers kinds, tacit, by words, by a nod, or gesture, &c.

In a civil law sense, affirmation may be divided into simple, which is that from which no obligation arises; and qualified, which infers an obligation.

The requisites of this latter are, that it be, 1. deliberate and free; 2. sincere; 3. certain and specific; 4. clear and perpicious.

Affirmative, in Logic. See Affirmation.

There are universal affirmative propositions; and such, usually, are the first of syllogisms.

In Algebra we have also affirmative or positive quantities, which have their appropriated characters. The term affirmative was introduced by Vieta.

Affirmative, in Grammar. Authors dilfinguish affirmative particles; such is, yes.

The term affirmative is sometimes also used substantively. Thus we say, the affirmative is the more probable side of the question: there were so many votes, or voices, for the affirmative.

Affirmative is particularly applied, in the Roman inquisition, to such heretics as own the errors and opinions with which they are charged; and maintain them in their examination with firmness and resolution.

Affix, affix, compounded of ad and fix, I fix, in Grammar, a particle added at the close of a word, either to diversify its form, or alter its significations. In which sense, affix is the same with suffix; though affix is sometimes, but left properly, applied more generally so as to include prefix particles.

We meet with affixes in the Saxon, the German, and other northern languages; but more especially in the Hebrew and other oriental tongues.

The Hebrew affixes are single syllables, frequently single letters, suffixed to nouns and verbs; and contribute not a little to the brevity of that language. The affixes of nouns may be called possessive affixes, as they denote the possessive pronouns; and those of verbs, verbal affixes. In feminine nouns, ending in מ, the מ is changed into מ before the affixes, and מ is affixed after the plural feminine termination מ מ, probably for softening the sound; e.g. מ מ, my laws, and מ מ, our laws. The מ of the plural masculine termination is expelled by the affixes, and when מ is affixed to the plural, מ is expelled, the מ of the plural conecives with the affix; and they are distinguishable only by the מ, or by other words in the sentence; e.g. מ מ, my books, מ מ, our books. Plural affixes are not unfrequently suffixed to singular nouns, and vice versa; e.g. מ מ, (1 Kings viii. 26) for מ מ, thy word; and מ מ (Exod. iv. 5) for מ מ, their fathers. As the possessive pronouns are suffixed to nouns, the personal pronouns are suffixed to verbs in the same manner. In this case the מ of the third person singular feminine is changed into מ, and the מ of the second person singular feminine affixes מ, before the affixes; e.g. מ מ, (1 Sam. xviii. 28) be loved him, for מ מ and מ מ (Ezek. xvi. 19), for מ מ, and then gavest him. In the second person plural, masculine and feminine of ק, the מ and מ are ejected, and their place is supplied by מ, inferred before the affixes; e.g. מ מ, מ, מ, י and י, ye delivered him. Sometimes מ is wanting, and thus this person is not easily distinguished from the third, second and first person singular; as מ מ (Zeck. vii. 5), for מ מ, did ye fall unto me? Affixes are sometimes suffixed to the infinitives of passive verbs, in which case these infinitives assume the rank of subjunctive nouns; as, מ מ (Gen. v. 2). In the day when they were created, or of their creation. When affixes are thus joined to infinitives, they may be taken either actively or passively, or expressed by the nominative or accusative case, according to the sense of the passage; e.g. מ מ, מ מ, may be underfoot to signify either, in the day in which he himself delivered, or in which he delivered him. Some adverbs, and all prepositions assume affixes; but as the affixes of verbs are generally rendered by the accusative, and those of nouns by the genitive, the affixes of adverbs are expressed by the nominative, and those of prepositions by the case which the preposition governs. Wilton’s Elements of Heb. Gram. p. 108. 174. Maelefeb, Heb. Gr. vol. i. p. 65, 171, 189.

The oriental languages are much the same as to the radicals; and differ chiefly from each other as to affixes and prefixes. Mem. Acad. Infrap. tom. ix. p. 334.

Afflatus, formed from ad and flares, to blow, literally denotes a blast of wind, breath, or vapour, striking with force against another body.

Naturalists sometimes speak of the afflatus of serpents.

Tully uses the word figuratively, for a divine inspiration. In which sense, he ascribes all great and eminent accomplishments to a divine afflatus. See Pithia.

Afflenk, in Geography, a town of Stiria in Germany; two leagues north of Pruck.

Affliction is not itself, in propriety of medical speech, a disease, but it produces many, for whatever excites envy, anger, or hatred, produces diseases of tenes fibres; as whatever excites tears, grief, joy, or delight, begets diseases from relaxation.

Many
Many chronic diseases, particularly the *pleuris*, spring from afflication. For a very remarkable history of the effect of affliction, see *Hill. de l'Acad. Roy. des Seienc. an. 1732.

**AFFUX**, in *Electricity*, is opposed to *efflux*; and both terms were used by the Abbé Nollet, and also by Dr. Watton, previously to the discovery of positive and negative electricity. They apprehended, that in all electrical operations, there was both an *affux* of electrical matter to the globe and the conductor, and likewise an *efflux* of the same matter from them. Dr. Watton soon corrected this mistaken opinion; but the Abbé Nollet was more tenacious; and he was confirmed in his attachment to this favourite theory by observing, that bodies not inflamed, plunged in electric atmospheres, showed signs of electricity; not perceiving, that the electricity of such bodies was in its nature and effects different from, and directly opposite to that of the electrified body, in the atmosphere of which they were involved. See *Electricity*.

**AFFORAGE**, in the French *Custume*, a duty paid to the lord of a district, for permission to sell wine, or other liquors within his seigniory.

Afforage is also used for the rate or price of provisions laid and fixed by the provost, or sheriffs, of Paris.

**AFFORARIE**, to afford, in *Law*, is to set a value on anything; and *afforatus* denotes appraised or valued, as things vendible in a fair or market. Du-Cange. See *Affereors*.

**AFFOREMENT**, *afforciement*, derived from the barbarous Latin *afforciare*, to strengthen, confirm, in some ancient charters, denotes a FORTRESS, or work of fortification and defence.

**AFFORESTING**, *afforestatio*, the turning ground into forest. In this sense, the word stands opposite to deafforesting.

The Conqueror, and his successors, continued afforeting the lands of the subject for many reigns; till the grievance became so notorious, that the people of all degrees and denominations were brought to sue for relief; which was at length obtained, and commutations were granted to survey and parcel out the forest, and separate all the new afforested lands, and re-convert them to the uses of their proprietors, under the name and quality of *purlieu*, or *pouvoir* land.

**AFFRANCHISEMENT.** See *Manumission*.

**AFFRAY**, in *Law*, is derived from the French word *effray*, to affright, and it formerly meant no more; as where persons appeared with armour or weapons, not usually worn, to the terror of others. *Stat. 2 Edw. III. cap. 3.* But it now implies a skirmish or fighting between two or more, in some public place, to the terror of his majesty's subjects; and there must be a stroke given or offered, or a weapon drawn, otherwise it is not an affray; but if the fighting be in private it is no affray, but an assault. *3 Stat. 158.* It is iniquitous in the court leet, and punishable by justices of peace in their seions, by fine and imprisonment; and it differs from assault, in that it is a wrong to the public; whereas assault is of a private nature. Lamb, *ib.* ii. Affrays may be suppressed by any private person present, who is justifiable in endeavouring to part the combatants, whatever consequences may ensue. But a constable, or other similar officer, may break open doors to suppress an affray, or apprehend the affraiers; and he may either take them before a justice, or imprison them by his own authority, for a convenient time, till the heat is over; and may then, perhaps, also make them find forfeits for the peace. *3 Stat. 158.* 1 *Hawkins P. c.* 134, 136, 138. The offence of affray admits of several degrees of aggravation. This is the case when two persons deliberately engage in a duel, though no mischief has actually ensued. Another aggravation is, when the officers of justice are disturbed by an affray, in the due execution of their office, or where it occurs in the king's court and such places. All affrays in a church or church-yard are deemed heinous offences; and therefore it is enacted, by Stat. 5 and 6 Edw. VI. c. 4, that if any person shall, by words only, quarrel, strike, or brawl, in a church or church-yard, the ordinary shall suspend him, if a layman, *ab injerto ecclesia*; and, if a clerk in orders, from the ministration of his office, during pleasure. And, if any person in such church or church-yard proceeds to finite or lay violent hands upon another, he shall be excommunicated, *ipsa fide*; or if he strikes him with a weapon, or draws any weapon with intent to strike, he shall, besides excommunication, (being convicted by a jury) have one of his ears cut off; or, having no ears, be branded with the letter F in his cheek. Blackll. *Com. vol. iv. p. 140.*

**AFFRIGHTMENT, of Affreiment, Affrectament, in Law,** signifies the fright of a flip.

The word is formed from the French *friet*, which expresses the same thing.

**AFFRONTE,** French, compounded of *ad*, *it*, and *front*, *forehead*, in *Heraldry*, is understood of animals borne in an *escutcheon* as facing, or with their heads turned towards each other. This is otherwise called *confront*; and stands opposed to *adors*. When a savage's head is full-faced, it is said to be *affronte*. The word often occurs in the same sense with gardant.

**AFFUERA,** in *Geography*, one of the islands of Juan Fernandez, on the South-sea coast, in the kingdom of Chili. Its longitude, from the meridian of Callao, is 30° 20', and it is about 400 leagues to the north of Cape Horn. This coast swarms with sea lions and wolves.

**AFFUAGE,** *affuigium*, derived from *affrare*, to make a fire of ad and focus, in *Ancient Customs*, a right of cutting fuel-wood in a forest, or the like, for maintaining family-fire. Du-Cange.

**AFFUSION,** the act of pouring some fluid substance on another body. Dr. Grew gives several experiments of the combustion arising from the affusion of divers meritirums on all sorts of bodies. Divines and church historians speak of *baptism* by *affusion*; which amounts to much the same with what we now call sprinkling.

**AFGHANS,** in *Geography* and *History*, comprehend generally the several tribes of Malometians, who inhabit the northern parts of India; some of whom are spread over the whole of India, and known by the name of *Pattans*: they are called the kilt soldiers in the country. In a more restricted sense, they are the indigenous poissellers of a tract of country, which stretches from the mountains of Tartary to certain parts of the gulf of Cambay and Persia, and from the Indus to the confines of Persia; and their principal settlements have been the mountainous districts bordering on Kandahar, Cabul, Gava, Pathanweer or Peshwar, and Hazarot, &c. The Afghans are represented as a rude unlettered people, without a written character, says Mr. Forster (Journey from Bengal to England, through the northern parts of India, &c.), and speaking a language, called *Pishko*, peculiar to themselves. They are a robust hardy race of men, and being generally addicted to a life of predatory warfare, their manners largely partake of a barbarous insolence, and they avow a fixed contempt for the occupations of civil life. The territory which they chiefly inhabit is denominated by Mr. Forster *Afghanistan*, and he observes that, though the natives are denominated Tartars in some histories of Asia, they bear no resemblance to those people,
people, in their persons, manners, or language. They have been sometimes subject to the Moguls, and sometimes to the Persians, but more frequently independent. During the weak reign of Shah Sultan Hoffein, and the tyranny of the Afghan princes, by whom he was governed, they suffered many severe oppressions; and under the direction of Mir Weis, or Vazir, one of their chiefs, a man of a bold and enterprising spirit, they determined to revolt, and to throw off the Persian yoke. Having intellectually petitioned for redress, and their deputies to the Persian court being dismissed as the agents of a seditious and turbulent people, their leader, Mir Weis, was seized and sent as a prisoner to Ispahan. He contrived, however, by his presence and eloquence, to ingratiate himself with the king's ministers, and with the king himself, that he was not only relented, but acquitted and favoured with the royal protection. This visit afforded him an opportunity of observing the weaknesses of the Persian monarchy, and of concerting measures for the success of the enterprise which he had projected. With a view of uniting the Afghans in his interest, he obtained leave to make the pilgrimage to Mecca; and here he obtained a dispensation for effecting the revolt which he had meditated. After the successful execution of several preparatory measures, and the murder of the Khan of Kandahar, and his Persian and Georgian adherents, he marched forward to the city, which he surprised and took. He was then joined by the Afghans, who, after several alternate defeats and victories, obtained pacific possession of the whole kingdom of Kandahar, A. D. 1713. Mir Weis, however, who had for some time assumed the title of king, with other enigmas of sovereignty, died in his new kingdom in the year 1715, and was succeeded on the throne by his brother, Mir Abdollah. This prince was destitute of talents, ambition, and courage; and therefore formed a design of relieving Kandahar to the crown of Persia. Whilist he was negociating the surrender, he was killed by his nephew Mir Mahmud, a prince of the age of 18, who was proclaimed king of Kandahar, within six months after the death of his father.

In 1717, the Abdollees, another tribe of Afghans, who resided in the province of Herat, and who had submitted to Peria, on condition of not being subject to foreign governors, resolved to follow the example of the Afghans of Kandahar, and to emancipate themselves from the Persian yoke. They succeeded in their attempt, and Herat became an independent republic. Mir Mahmud, availing himself of the revolt of the Abdollees, and of other concurrent circumstances, which contributed to enfeebly the Persian government, proceeded to the execution of the design which his father had conceived of subduing the whole of Persia, and engaged the Afghans, the Abdollees, and the other inhabitants of adjacent cities, to cooperate with him. Accordingly he began his march in January 1722; and having advanced within three leagues of Ispahan, the capital, he pitched his camp and prepared for battle. The Persian army, after suffering a great slaughter, whilst the lots of the Afghans was very inconsiderable, was betrayed by one of its own generals, and reduced to the greatest distress. Mahmud having gained the suburbs, invested the city; but several unfavorable circumstances occurred during the siege, and the Afghans must have withdrawn if Shah Hoffein had not been dejected and betrayed by those in whom he placed his chief confidence. After enduring the horrors of famine for two months to such a degree that the besieged were under the necessity of consuming every kind of brute animal they could find, and of appeasing their hunger by eating the bodies of those who died, and even murdering their fellow-citizens and children, the city capitulated on condition of Hoffein's reining the empire, together with his perfon and principal officers of the court, into the hands of the conqueror. "Such," said the vanquished and defeated monarch, addressing the Afghan prince, "is the inatibility of human grandeur: God disperses of empires as he pleases, and takes them from one nation to give them to another; but I promise to consider you always as my own father; and I will undertake nothing for the future without your advice." As soon as these words were uttered four thousand Afghans were ordered to take possession of the royal palace, and the gates of the city. Thus, when Hoffein had reigned 28 years, the dynasty of the Selifs, or Sais, ended in the person of this prince, the 10th successor of Israel, its founder, after having reigned 223 years. For the manner in which Mahmud closed his life and reign, see the article MAHMUD. He was succeeded by Ahuraff, the son of Abdollah, whom the Afghans raised to the throne of Peria, A. D. 1725. The Afghans at this juncture were masters of Khorasan, Kerman and Persia; and under the conduct of Ahuraff, they obtained some successes against the Turks; but in 1727, they concluded a peace with them, and Ahuraff acknowledged the Ottoman emperor lawful sovereign of Persia. About this time, especially in 1729, Nadir Shah, otherwise called Kuli Khan, began to distinguish himself. Having totally routed the Abdollees Afghans, of whom 5000 were made prisoners, and near 15,000 killed and wounded, and having taken possession of Herat, he proceeded to meet Ahuraff, who was marching towards Khorasan at the head of an army of 30,000 men. The Afghans were terrified by the prospect of encountering the victorious general of the Persians, and wished to avoid an action. They were, however, compelled to engage, and the event was a complete victory on the part of the Persians. The loss sustained by the Afghans was about 12,000 men: and that of the Persians amounted to the number of 4000. Ahuraff retreated towards Ispahan, and was pursued by Kuli Khan. On his approach the Afghans quitted their several garrisons and fled towards the capital, where they deposited ample stores of provisions, with the purpose of defending themselves to the last extremity. But Ahuraff determined to try the event of a battle before he submitted to a siege. Accordingly he marched out to a convenient situation about 30 miles from the city, and waited Kuli Khan's arrival. In the mean while he exercised the most wanton cruelty on the Persians, ordering all the principal men to be cut off, and afterwards all they could find in the streets; so that, for the space of 20 days, there was not a Perian to be seen abroad, none appearing but women, who came out to buy the common necessaries of life. At last Kuli Khan arrived and obtained a complete victory. Ahuraff having lost 7000 men, retired to Ispahan, and issued an order, that all the inhabitants should be slaughtered, and the palace and other houses set on fire. As they were about to execute this barbarous order, the Perian army approached the city; upon which Ahuraff and his men, having loaded their heads with money, hastened to save themselves by flight; and in a few hours there was scarce an Afghan to be seen in the city. The Afghans took up their winter-quarters at Shiraz; but they were pursued by Kuli Khan, Jan. 1730; and after an obstinate resistance, compelled to fly, and to leave behind them a great part of their treasure, and most of their women and children. Ahuraff, with about 1500 of his men, marched directly towards Kandahar; but most of them deserted him; and the rest were imprised by a body of the Baluchis, and after a gallant defence, he and most of his party were cut to pieces. Thus ended the usurpation of the Afghans in Peria.

After Nadir Shah was proclaimed emperor of Peria in 1736,
1736, he proceeded with his army towards Kandahar, in order to reduce to subjection the Afghanis, who were the only enemies of the Persian empire whom he had not subdued. Having seized Kandahar and Cabul, and advancing in his march towards Peshwar, he was much impressed by the hardship of the mountains, and in several skirmishes with them lost many men, who were either killed or wounded. The Afghans had fortified themselves so strongly on the tops of the hills, that this victorious general found it impossible to force their pass except by bloodshed; and he therefore sent them offers of accommodation, which they accepted the more readily, as they had not received for four or five years the utmost allowance from court for their services in defending the passes of the mountains. Nadir Shah, upon paying them a certain sum of money, was allowed to march forward without molestation; several of the Afghans enlisted in his army; and others joined him in his further progress. The mountains, which the Afghans were included in the territories to the westward of the river Atek, formally ceded to Nadir Shah by Mahomed Shah, in the year 1739. A body of Afghans, in the service of Nadir Shah, was commanded by Ahmed Khan, who, after the assassination of this barbarous conqueror in 1747, took possession of Cabul, and with the resources furnished by the treasure which he thus obtained, laid the foundation of an independent government, including Afghanistan, Khorasan, Multan, Sind, and Caufmir. Ahmed was succeeded in 1752, by his son Timur Shah, who, besides his Afghan and Indian dominions, possessed a large division of Khorasan. His successor, who now fills the throne, carried his arms in 1756 as far as Lahore, when he was recalled by internal commotions. Hanway's Hist. Acc. of the British Trade, &c. vol. iii. p. 27, &c. &c. Hanway's Trav. vol. iii. p. 148, &c. Frazer's Hist. Nadir Shah, p. 91. Raynal's Revol. vol. ii. p. 68.

In the 2d volume of the Asiatic Researches, we have some curious particulars relating to the Afghans; they call themselves the posterity of Melic Talut, or king Saul. In a war, they say, which raged between the children of Israel and the Amalekites, the latter, being victorious, plundered the Jews, and obtained possession of the ark of the covenant. Considering this as the God of the Jews, they threw it into the fire, which did not injure it; and having ineffectually endeavored by other methods to destroy it, they placed it in their temple, and all the idols bowed to it. At length they fastened it upon a cow, which they turned loose in the wildernefs. They are said to have applied to Samuel, after their defeat by the Amalekites, for a king: and at this time the angel Gabriel defende, and delivered a wand, with instruction, that the perfom, whose figure corresponded with that wand, should be king of Israel. Melic Talut was then a herdman of inferior condition; and having lost a cow, he applied to Samuel for assistance to satisfy the owner. Samuel, perceiving his lofty stature, asked his name: He answered Talut. Upon which, having measured him with the wand, he said to the children of Israel, "God has raised Talut to be your king." How shall we know, said they, that he shall be our king? Samuel replied, they should know, that God had constituted Talut their king, by his restoring the ark of the covenant. He accordingly restored it, and they acknowledged him their sovereign. After Talut obtained the kingdom, he feized part of the territories of Jadut, or Goliath, who assembled a large army, but was killed by David. Talut afterwards died a martyr in the war against the infidies; and God constituted David king of the Jews. Melic Talut, they say, had two sons, one called Berikia and the other Irmiis, who served David and were beloved by him. The son of Berikia was called Afghan, and the son of Irmiis was named Ufer. The latter was eminent for his learning; and the former for his corporeal strength, which struck terror into Demons and Genii. Afghan made frequent excursions to the mountains, where his prosperity, after his death, established himself, lived in a state of independence, built forts, and exterminated the infidies. The late Henry Vanfittart, Esq. informs us, that a very particular account of the Afghans has been written by the late Hafez Ramno Khan, a chief of the Rohillas, from which the curious reader may derive much information. They are Mussulmans, partly of the Sunniye, and partly of the Shittie persuasion. They boast much of the antiquity of their origin, and the reputation of their tribe; but other Mussulmans reject their claim, and consider them of modern, and even base extraction. From history however, we learn, that they have distinguished themselves by their courage, both singly and unitedly, as principals and auxiliaries. They have conquered for their own princes and for foreigners, and have always been regarded as the chief strength of the army, in which they have served. As they have been applauded for their virtues, they have also been reproached for vices; having sometimes been guilty of treachery, and even acted the base part of assassins. They confess of four classes, viz. pure Afghans, whole fathers and mothers were Afghans; those whose fathers were Afghans, but their mothers of another nation; such as had Afghan mothers and fathers of another nation; and the children of women, whose mothers were Afghans, and fathers or husbands of a different nation.

The above account is extracted from the Persian Abridgment of a book, called The Secrets of the Afghans, written in the Puchto language, a specimen of which is added. The work was communicated by Henry Vanfittart, Esq. to the late Sir William Jones, who was then president of the Asiatic Society. Although their claim to a descent from Saul seems to resemble some of the fictions borrowed by Mahomet from the later Jewish Rabbins, Sir William Jones has no doubt that the Afghans are descendants of Israel. "We learn," says he, from Edfus, that the ten tribes, after a wandering journey, came to a country called Araxes; where, we may suppose, they settled. Now the Afghans are said by the belled Persian historians to be descended from the Jews; they have among themselves traditions of such a descent; and it is even asserted, that their families are distinguished by the names of Jewish tribes; although, since their conversion to the Islam, they fluently conceal their origin. The Puchto language, of which I have been a dictionary, has a manifold resemblance to the Chaldaic; and a considerable district under their dominion is called Passion, or Passion, which might easily have been changed into the word used by Edfus. I strongly recommend an enquiry into the literature and history of the Afghans.

Afloat, in Sea language, denotes the state of a ship when she is buoyed up by the water from the ground.

Afroba, in Botany, a name given by the natives of Guinea, to a kind of plant, of the genus of Phaerocoeus, or kidney bean. They use it pounded and mixed with oil, to cure the itch, and other cutaneous fowlneesses. It is more hairy than the common kinds, and its leaves are very small. Phil. Trans. N° 232.

Afore, signifies that part of a ship which lies forward, or near the stern. It also means farther forward, as the manger stands afor the fore-mast, or nearer to the stern.

Afra,
AFRICA, in Geography, a strong castle on the frontiers of Numidia in Africa, built by Cherif Mahommed, king of Sun., N. lat. 25°, E. long. 12°.

AFRICA, in Botany, a species of Papilio, with brown wings, six ocelli, and the hinder wings marked with eumcrous veins; found in the southern deserts of Arabia.

AFRANIUS, L. in Biography, a Latin comic poet, who flourished about the year B. C. 654, or a century before Christ. Cicero (de Clar. Orat. iapud Oper. t. i. p. 434, Ed. Olivet.) says, that he imitated C. Titius, and commends him for the acuteness of his genius and the fluency of his style. Lo- race (Eppil. i. in op. t. v. 57) represents him as resembling Menander. Quintilian, (i. x. c. t. ii. p. 913) whilst he celebrates his talents for comedy, expresses a wish that he had not fulfilled his performances by impure and unnatural love-adventures, which were decriatory of his own manners.

Suetonius in his life of Nero, (apud Oper. t. ii. p. 743. Ed. Pitifii.) mentions a comedy of Afranus, intitled Incedium or Confagration, on the exhibitions of which the honse that was burnt was devoted to be pilled by the actors. Some fragments of this poet's works are preferred in Mattaire's Corpus Poetarum, Lond. 1713, 50.

AFRICA, in Geography and History, was anciently one of the three parts of the known world, which was divided into Europe, Asia, and Africa, and called by the Greeks ε ῥ ιγα, continents; and is now one of the four quarters of the globe. Bochart (Geog. Sac. apud op. tom. i. col. 488.) after enumerating several etymologies of the name Africa, which he disapproves, deduces it from a Punic word feric, signifying an ear of corn, and referring to the fertility of this country. Dr. Hyde suppofes it to be derived from the Phoenician or Punic Hacaria, or Acrea; i.e. the Barea, or country of Barea, which was one of the most remarkable parts of this continent. Servius in Virgil (En. v. v. 128. tom. ii. p. 618. Ed. Barm.) deduces it from arie, fine frigore, and the appellation expresses the heat of the climate.

Africa, called by the ancients Libya, was divided by them into Africa propria, and Africa interior. Africa propria, or the territory of Carthage, has had various limits assigned to it by the ancient geographers. Mela (i. c. e. 7.) and Ptolemy (i. iv. c. 5.) comprehend under this appellation all the country situated between the river.Amphara and the borders of Cyrenaica, which, according to Pliny (H. N. i. v. c. 4.) were inhabited by twenty-six different nations; and thus they would include Numidia and the Regio Syricana, which are countries distant from the proper territory of Carthage. Its true limits seem to have been (See Celler. Ant. Geog. tom. ii. p. 85.) the river Tufo, or boundary of Numida, on the west; the Mediterranean, or African Sea on the north; the frontiers of the Garamantes and deserts of Libya interior on the south; and the Mediterranean, with the Leffer Syricana, on the east. It comprehended two provinces, viz. the Regio Zeugita and Byzacium, with which the kingdom of Tunis, as it is divided by Dr. Shaw (Travels, p. 73.) into the summer and winter circuits, nearly corresponds. The chief lakes of this region, noticed by the ancients, are Hippopotis, the Palus Sijara, the Palus Trinosa, the Palus Pallat, and the Palus Libya: the most famous river was the Bagrada; and the principal islands on the coast of Africa propria were the Cossoja, the Tarichia, Lopudusa, Aegousa, the Larunesia, Dracontia, Gaila, and Egeirus.

Africa was first peopled, principally by Ham and his descendants. Mizraim peopled Egypt. (See Gen. x. 6. 13.) The Pathrian, the Naphtalim, the Caullihim, and the Ludim took possesffen of other parts; though their respective situations are not precisely known. Some have supposfed that the Leshabim settled in Libya, and Pluit between Numidia and Libya, along the Mediterranean, and that many of the Canaanites, when they were driven out of their country by Josph, retired into Africa. At a later period, the inhabitants of this country were the Aues, whose chief city was Auida, the Maxyes and Machylae both Libyan nations, the Zeuaees, and the Zygantges, who cultivated bees, and made honey. All these were, probably, a mixture of old Libyans and Phoenicians, and in several respects resembled both these nations.

Africa interior comprehended those remoter and more southern countries of Africa, most of which were little known to the Greeks and Romans otherwise than by uncertain and fabulous report. The western part of this division was called Libya interior, and it was chiefly inhabited by the Gutali, Garamantes, Nitrites, and Hesperian Ethiopians. The eastern part was denominated by Ptolemy Ethio-

opia sub Egyptio. See Abyssinia, Egypt, and Ethiopia. The Romans do not seem to have extended their conquests and intercourse beyond the tropic of Cancer. The kingdoms with which they were more immediately connected were Numidia, Mauritania, and Ghetulia. As for the inhabitants of the more retired and southerly parts, they were ignorant even of their names, and much more of their character and manners. Some account will be given of the notions that prevailed respecting them in their proper places, under the real or fabulous apppellations by which they were distinguished, as Aesacuri, Blemmyes, Caliphi, Doc-
lotes, Elephantophagi, Ethyphagi, Latophagi, &c. &c.

The ignorance of the ancients, concerning the extent of Africa, appears from their disagreement in ascertaining its just limits; whilst some, as Callut, (Jugurth. Bell. c. 20. tom. i. p. 26. Ed. Haverc.) Mela, (i. c. c. 8.) Pliny (l. iii. c. 13.) tom. i. p. 135. Ed. Hard.) Dionysius, (Perieg. v. 18. Hirtius, (De Alex. Bell. c. 14.) Polybius, (Hist. l. iii. p. 191. Ed. Calabub.) and Solinus, have preferred for this purpose the western branch of the Nile, or even the great Catabathmus or desert, which last would affign to Asia, not only Egypt, but part of Libya: others, as Ptolemy, (l. iv. c. 5.) and Strabo, (l. iii. tom. i. p. 61.) with the modern geographers, fix the illimns of Scics, and the Arabian gulf, as the boundaries of Asia and Africa. This fixes Strabo as a more natural limit than the Nile; and thus, in Ptolemy, the whole of Egypt is included in Africa. But the knowledge both of Ptolemy and Strabo comprehended only a small part of Africa. Strabo was only acquainted with that part of it which the Romans had reduced under their power, and this was scarcely a tenth part of it, and he seems not to have known any thing with certainty concerning the form and flate of the southern parts of Africa (l. xii. c. 5.) and though Ptolemy was acquainted with some other parts, which were not known to the Romans, yet by the division which he had made of it into twelve regions, we may conceive that nearly one half of it was unknown to him. This inquifite and learned geographer appears to have been unaeqnacquainted with any part of Africa, situated a few degrees beyond the equatorial line; for he supposes that this great continent was not surrounded by the sea, but that it stretched, without interruption, and increasing in its breadth, towards the south. Geog. l. 4. c. 9. Leo Africanus, who was an eminent African geographer, after all his studies, travels, and researches, appears to have been imperfectly acquainted with this country; for by dividing it merely into four parts, viz. Barbary, Numidia or Bledulgerid, Libya, and Nigritia or Negrolg, he excludes from it the whole kingdom of

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Egypt, and the two Ethiopias. It was not known for many ages, that Africa was a peninsula, every where surround- ed by the sea, excepting at the isthmus of Suez, which joins it to Asia. The knowledge of the Romans was restricted to those provinces which stretch along the Mediterranean sea, from Egypt westward to the Strait of Gades. The Phenicians, however, at an earlier period, seem to have been acquainted with both the south-east and western coasts of Africa. A Phenician fleet, as Herodotus informs us, (l. iv. c. 42. p. 298. Ed. Welling.) fitted out by Nercho, king of Egypt, took its departure about 600 years before the Christian era, from a port in the Red sea, doubled the southern promontory of Africa, and, after a voyage of three years, returned by the Straits of Gades, to the mouth of the Nile. Eudoxus of Cyzicus, is said to have held the same course, and to have accomplished the fame hazardous undertaking. Plin. H. N. ii. c. 67. tom. i. p. 106. Strabo, (l. ii. tom. i. p. 155.) mentions this voyage of Eudoxus, and treats it as a fabulous tale. Dr. Vincent, in his Periplus of the Erythraean sea, published in 1800, argues with great ingenuity against the possibility of an African circumnavigation previously to that of the Portuguese; and he affirms, that there is no evidence of a farther progress to the south, on the western coast of Africa, than that of Hanno; nor on the eastern, than that of the Periplus. An anonymous writer is disposed to credit the voyage, related by Herodotus, till it can be proved that the circumnavigation, in such vessels as the Phenicians then possessed, was physically impossible; and in support of this opinion, he alludes the simplicity of the narrative, unblended with miraculous adventures—the discovery of two important truths, viz. the falling of the shadow to the south, and the perpendicular form of the African continent; one of which could be ascertained by no other means, and the former of which was disbelieved by the writer who relates it; and the consideration, that the navigators only put to sea when circumstances were favourable; and though the attempt was hazardous, and success improbable, fail no insurmountable impediment to its completion exists. Month. Rev. New Series. vol. xxxiv. p. 122. The Carthaginians also, imbibing the spirit, and following the example of the Phenicians, extended their intercourse with this country. Whilst they made considerable progress, by land, into the interior provinces of Africa, trading with some of them, and subjecting others to their empire; they sailed along the western coast of this great continent, almost to the tropic of Cancer, and planted several colonies, in order to civilize the natives, and accustom them to commerce. In the prosperous age of the Carthaginian republic, Hanno, with a fleet equipped by authority of the senate, and at the public expense, was directed to flce towards the south, and seems to have advanced much nearer the equinoctial line than any former navigator. Major Rennell supposes his navigation to have terminated at Sherbro river, or found, which was also the limit of the knowledge of Ptolemy. Plin. H. N. i. v. c. 111. p. 241. Hannonis Periplus apud Geograph. minores ed. Hudson, vol. i. p. 1. The authenticity of this work has been questioned by Mr. Dodwell (ubi supra,) and vindicated by M. de Montefigue (Sp. of Laws, b. xxi. c. 8. v. ii. p. 44.) and M. de Bougainville, in a Dissertation published in tom. xxvi. of the Mem. de l’Acad. des Inscriptions, &c. The voyage, it is said, was performed in small vessels, which kept near the coast; and the observations made on the appearance and state of the countries on the coast of Africa have been confirmed by the relations of modern navigators. Nevertheless, Polybius, (Hist. i. iii. p. 192. Ed. Cafaub.) long after the period alligned to these voyages, affirms, that it was not known in his time, whether Africa was a continued continent, stretching to the south, or whether it was encompassed by the sea; and Pliny (I. N. i. ii. c. 68. i. i. p. 107.) affirms, that there can be no communication between the southern and northern temperate zones. In order to obviate these difficulties, Dr. Robertson observes, (Hist. Amer. vol. i. p. 15. 8vo.) that the Phenicians and Carthaginians concealed any knowledge they acquired concerning the remote regions of the earth, with a mercantile jealousy. Many of their discoveries seem to have been scarcely known beyond the confines of their own states. The navigation round Africa is recorded by the Greek and Roman writers, rather as a strange amusing tale, than as a real transact. As neither the progress of the Phenicians and Carthaginians, nor the extent of their navigation, were communicated to the rest of mankind, all memorials of their skill in naval affairs seem, in a great measure, to have perished, when the maritime power of the former was annihilated by Alexander’s conquest of Tyre, and the empire of the latter was overturned by the Roman arms. It was not till a century after the invention of the mariner’s compass in 1320, that navigation began to advance beyond the latitude to which it had attained before the downfall of the Roman empire. The first regular plan for discovering unknown countries was formed in Portugal by John I. (surmised the bastard, after he had obtained a secure possession of the crown, by the peace concluded with Cadiz, A. D. 1411.) While an armament was equipping, in order to attack the Moors who were settled on the coast of Barbary, a fleet, consisting of a few vessels, was defined in 1412 to sail along the western shore of Africa, and to discover the countries that were situated on that coast. This fleet doubled Cape Now, which had been the formidable boundary of the Portuguese navigation before this period, and proceeded 160 miles beyond it to Cape Bojador. The rocky cliffs, adjacent to this cape, deterred any farther progress. In 1418, a new attempt was made for doubling this cape, but though the attempt proved unsuccessful, it terminated in the discovery of Porto Santo; and another expedition, in 1419, was recom- mended by the discovery of Madeira. The Portuguese, by their voyage to this island, were accustomed to quit the coast, and venture into the open sea. By pursuing this course they succeeded, A. D. 1433, in doubling Cape Bo- jador, and in advancing within the tropics; so that in a few years they discovered the river Senegal, and the whole coast extending from Cape Blanco to Cape de Verd. As far as the river Senegal they found the African coast inhabited by people resembling the Moors of Barbary; but to the south of that river, they beheld men with skins black as ebony, with short curled hair, flat noses, thick lips, and all those peculiar features which are now known to distinguish the race of Negroes. The search for unknown countries became now an object of general attention; and it was encouraged first by the discovery of the Cape de Verd islands; and soon after, viz. in 1449, by that of the Azores. So flow and gradual, however, was the progress of discovery, that the Portuguese, during the life of prince Henry, who had projected and patronised undertakings of this kind, and who died in 1463, did not advance nearer to the equinoctial line than five degrees; and after their continued exertions for half a century, they had not dis- covered more than 1500 miles of the African coast. From Cape Now to the Senegal, the country along the coast was found to be a sandy, barren tract, thinly inhabited by a wretched people, professing the Mahometan religion, and subject to the extensive empire of Morocco. But to the
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foth of that time, the power and religion of the Mahometans were unknown: the country was divided into small independent republics; the population was considerable, the soil fertile; and the Portuguese soon discovered that it produced every rich crop, gold, and other valuable commodities, which afforded the prospect of a lucrative commerce, as well as the gratification of curiosity. Having ventured to cross the line in 1471, they found that region of the torrid zone, which was supposed to be searched with intolerable heat, to be not only habitable, but populous and fertile. In 1472, a powerful fleet was fitted out, which, after discovering the kingdoms of Senna and Congo, advanced above 1500 miles beyond the line; and in order to secure the possession of the countries which they discovered, and to derive commercial advantages from them, forts were erected on the coast of Guinea, colonies were settled, and by various measures of policy, the Portuguese power and commerce in Africa were established upon a solid foundation. By constant intercourse with the Africans, the Portuguese gained increasing knowledge of the country; they found, that contrary to the doctrine of Ptolomy, the continent inclined towards the east; and they began to indulge a hope, founded on the report of the ancient Phcenician voyages round Africa, of proceeding by the same route to the East Indies, and of engrossing that commerce, which has been the source of wealth and power to every nation by which it has been possessed. In 1486, a voyage of discovery was projected; and the conduct of it was committed to Bartholomew Diaz, an experienced and brave officer, who stretched farther towards the south than any of his predecessors; and discovered near 1000 miles of a new country. After encountering many difficulties and hazards, in an unknown and tempestuous ocean, he at length descried that lofty promontory which bounds Africa to the south: but having made the discovery, he was compelled, by the shatter'd fate of his ships, and the turbulent disposition of his crew, to return home. This promontory he called Cabo Tormentoso, or the stormy cape; but the king, his master, extending his views by this course to India, gave it a name of better omen, which it has ever since retained,—the Cape of Good Hope. In 1497, a squadron was equipped for prosecuting the scheme of opening a passage to the East Indies by this cape; and the command of it was entrusted with Valco de Gama, a man of noble birth, and possessed of talents adapted to the enterprise. Ignorant of the course of the winds in the Atlantic ocean, he set sail in July, an improper season of the year; and steering towards the south, he struggled with contrary winds for four months, before he reached the cape. During an interval of calm weather, he doubled this formidable promontory, and pursued his voyage towards the north-call, along the African coast. After touching at several ports and various adventures, he came to anchor before the city of Melinda. From hence he proceeded to Calcutt, where he arrived May 22, 1498; but as he had neither force sufficient to attempt a settlement, nor commodities proper for carrying on any commerce, he halted back to Portugal, with an account of his successes in performing a voyage the length of, as well as the most difficult, that had ever been made since the first invention of navigation. He landed at Lisbon, Sept. 14, 1499, two years, two months, and five days from the time he left that port. To this voyage we are indebted for the discovery of the southern and western boundaries of the African continent; and from the Portuguese we also derive our earliest knowledge of many of its interior parts, and of the most considerable kingdoms and empires of which it composes, particularly those of Habesh or Abyssinia, Monomotapa, Monomotagi, and Melinda, on the eastern coast. Their missionaries collected and recorded many particulars with respect to their various religions, governments, laws, customs, products, and commerce, at a time when the means of information concerning the interior of Africa were very scanty and imperfect.

Africa, at a former dilfult period, contained several kingdoms and states, eminent for the liberal arts, for wealth and power, and for the most extensive commerce. Almost all the northern parts of this continent were full of people, from the Red Sea to the Atlantic Ocean. The kingdoms of Egypt and Ethiopia were much celebrated, and the rich and powerful state of Carthage extended her commerce to every region of the then known world; and even the British thrones were visited by her fleets. At length the Romans, after a contest which lasted for more than 100 years, totally subdued this famous republic and destroyed their city, and then reduced under their power other kingdoms and states of Africa. See Numidia, Mauritania, Gataula, &c. The Roman empire retained its possessions in this country for several ages, and found them an ample source of revenue, as well as necessary supplier.

The 10,000 Euboe, or Phcenician talents, amounting to about four million florins, which vanquished Carthage was condemned to pay within the term of fifty years, as Polybius informs us, (Hist. i. xv. c. 2. p. 766.) were a flight acknowledgment of the superiority of Rome, and bear a very small proportion to the taxes afterwards raised both on the lands and on the perons of the inhabitants, after the fertile coast of Africa was reduced into a province. It would be tedious to recite the oppressions which the Africans suffered from the rapacity of the Roman governors, and the fquations which were the consequences of their religious disputes, after the introduction of Christianity, and which were rather augmented than appeased under the unenviable interference of the civil power. Of the latter, some account will be given under the articles circumcelliones and donatists: and with respect to the former it will be sufficient to select a single influence.

About the year of our Lord 366, Count Romanus polfled the military command of Africa. At this time the three flourishing cities of Oea, Leptis, and Sabrata, which, under the name of Tripoli, had long constituted a federal union, were invaded and pillaged by the barbarians of Gataula; and several of their most honourable citizens were surprized and maffaccred. In this state of distress they applied to Romanus for succour; but the price of his assistance was so enormous, that they were incapable of purchasing it. Their application by two deputies to the emperor Valentinian was equally unavailing; for though he deputed Palladius to examine the state of Africa, and the conduct of Romanus, he behaved in such a manner that, for concealing his own guilt, he was under a necessity of attributing the innocence and merit of the Count. The charge of the Tripolitians was declared to be false and frivolous; the citizens of Leptis were compelled to contradict the truth of their own decrees, and to confine the behaviour of their own deputies; the prefect of Tripoli, who had presumed to pity the distress of the province, was publicly executed at Utica; four distinguished citizens were put to death, as accomplices of the imaginary fraud, and the tongues of two others were cut out, by the express order of the savage emperor. Romanus was continued in the command, till the Africans were provoked, by his avarice, to join the rebellions standard of
of Firmus the Moor, A.D. 472. Firmus was the son of one of the richest and most powerful of the Moorish princes, who acknowledged the supremacy of Rome; and having slain his brother in a domestic quarrel, he became odious to the disgrace of Romans. Unable to conciliate him, he appealed against the tyrant, who was an object of universal contempt and hatred, to the sword and to the people. Having established his power in the provinces of Mauritia and Numidia, and whilst he was hesitating whether he should assume the diadem of a Moorish king, or the purple of a Roman emperor, Theodoreus, the famous Roman general, with a small band of veterans, unexpectedly arrived on the African coast, and quelled the rebellion by his prudence and activity; and Firmus, deprived of all hopes of escape, disdained the insulting triumph of the Romans, by slandering himself in the night. Romans, who was the original cause of this rebellion, escaped with impunity, by fraud and forgery; and Theodoreus, the reclusor of Britain and of Africa, on a vague suspicion that his name and services were superior to the rank of a subject, was ignominiously beheaded at Carthage. Gibbon's Hist. vol. iv. p. 301–308, 8vo.

The Romans, however, did not long retain their dominion in Africa. It was lost in consequence of a quarrel between Boniface and Aetius, two Roman generals, who were rivals in reputation and power. The former was supreme governor of the Roman territories in this country; but in the year 427, he was induced to revolt, by the treachery of the latter: and in order to avenge his quarrel and maintain his authority, in opposition to his rival, he fought the assistance of Generec, a warlike prince of the Vandals, who left the kingdom of Galicia, where he had conquered his brother Gonderic, and falling over the straits of Gades, landed on the coasts of Barbary, A.D. 429. The army, which he commanded, amounted at first only to 50,000 effective men: but his own dexterity, and the deficiencies of Africa, soon fortified the Vandals over the suasion of numerous and active allies. The wandering Moors of Mauritania precipitated themselves into an alliance with the enemies of Rome; and a crowd of naked savages rushed from the woods and valleys of Mount Atlas, to satiate their revenge on the polished tyrants, who had injuriously expelled them from the native sovereignty of the land. The perfusions of the Donatists favoured the designs of Generec, who avowed himself an enemy of the orthodox communion, and who led them to expect a repeal of the odious and oppressive edicts of the Roman emperors. The conquest of Africa was facilitated by the active zeal, or the secret favour, of a domestic faction; and the intolerant spirit, which disgraced the triumph of Christianity, contributed to the loss of the most important province of the west.

Boniface having vindicated his innocence at the imperial court, and regained the favour of the empress Placidia, repented of the application which he had made to Generec, and attempted, by various conciliatory means, to induce him and his adventurers to return to Spain. But all his efforts for this purpose were ineffectual. Although Carthage, and the Roman garrisons, returned with their general to the allegiance of Valentine, the rest of Africa was distracted with war and faction; and the inextinguishable spirit of the Vandals disdained all terms of accommodation. Boniface and his veterans, with the haughty levies of provincial troops, were defeated with considerable loss; the victorious Vandals infested the open country; and Carthage, Cirta, and Hippo Regius were the only cities that still adhered to the declining interest of Rome. The long and narrow tract of the African coast to which the Roman power extended was fertile and populous; and besides the supply which it afforded to the inhabitants, the annual exportation, particularly of wheat, was so great and plentiful that Africa defended the name of the common granary of Rome and of mankind; and it was called by an ancient writer the soul of the commonwealth. On a sudden, the seven fruitful provinces, from Tangier to Tripoli, were overwhelmed by the invasion of the Vandals; and where they found resistance, such were their dispositions and habits, they seldom gave quarter. Boniface, disdaining beyond measure by the fear of the ruin which he had occasioned, and by his inability to stay its progress, retired into Hippo Regius, which was immediately belied. By the skill of this distinguished commander, the siege was protracted about 14 months; and thus Boniface was hemmed in by a forcible armament from Constantinople. As soon as he obtained this help he marched out against the Vandals; and the loss of a second battle irretrievably decided the fate of Africa; upon which he embarked for Italy with the precipitation of despair; and soon after, A.D. 432, fell in a rencounter with his rival Aetius. In the year 439 Carthage was reduced, 585 years after the destruction of the city and republic by the younger Scipio: the licentious troops of the victor were permitted to satiate their rage and avarice; and all persons were enslaved by an edict, and under the threatened penalty of death and torture, to deliver their gold, silver, jewels and valuable furniture or apparel, to the royal officers. The lands that formed the immediate district of Carthage were divided among the barbarians; and Generec refused for his own domain the fertile territory of Byzacium and the adjacent parts of Numidia and Getaulia. Generec was no less arbitrary and intolerant in the government of the church than of the state. He would not allow the Africans, who fled before him in the field, to dispute his will in synods and churches; and therefore, as he himself had renounced the orthodox communion, he oppressed his subjects by severe laws and punishments. His son Hunneric, who succeeded him, A.D. 457, inherited his vices, and tormented the Catholics with the same unrelenting fury. The throne of Africa was successively filled by the two nephews of Hunneric, by Gundamund, A.D. 483, and by Thraemund, A.D. 496; both of whom emulated the cruelty of their uncle, and the gift of whom even exceeded it: for in the hour of death he exacted from his successor a solemn oath, that he would never tolerate the sectaries of Atheranius. Hilderic, the gentle son of the savage Hunneric, ascended the throne A.D. 523, and his accession was distinguished by the restoration of peace and universal freedom. In 530, the government was wrested from him by his cousin Gelimer; but the Vandals, before he could enjoy or abuse his power, was subdued by the arms of Belisarius; and the orthodox party retaliated the injuries which they had suffered. The recovery of Africa was intrusted by Justinian to Belisarius; and in 533 he landed on the coast with an army, well chosen and properly equipped for the important service to which they were destined. As the Romans approached Carthage, the mind of Gelimer was filled with anxiety and terror. The battle that ensued terminated in the defeat of the Vandals, who, accompanied only to a Moorish enemy, were incapable of withstanding the arms and discipline of the Romans. Gelimer fled towards the deserts of Numidia; and Belisarius pitched his camp on the field of victoiy at the distance of ten miles from Carthage. When he drew near the city, he found it blazing with torches, as signals of the public joy; the gates were thrown open; and the inhabitants, with acclamations of gratitude, hailed and welcomed their Roman deliverers.
deliverers. When the Imperial fleet arrived, the mariners were immediately landed to unite with the military in the triumph of their conquest; and they were directed by Belisarius to remember, in their march through the city, that the Vandals had been the tyrants, but that they were the deliverers of the Africans, who must now be respected as the voluntary and affectionate subjects of their common sovereign. “The voice of menace and complaint was silent; the trade of Carthage was not interrupted; while Africa changed her master and her government, the ships continued open and busy; and the folders, after sufficient guards had been posted, modestly departed to the havens which were allotted for their reception. Belisarius fixed his residence in the palace; seated himself on the throne of Genicric; accepted and distributed the barbaric spoil; granted their lives to the suppliant Vandals; and laboured to repair the damage which the suburb of Mandracium had sustained in the preceding night. At supper he entertained his principal officers with the form and magnificence of a royal banquet.”

Gellimer, who endeavoured to rally his scattered forces, encamped within four days’ journey of Carthage, and was joined by his brother Zano, who returned to him, at his earnest request, from the confines of Sardinia. In their march towards Carthage, their army increased, and surpassed, in a tenfold proportion, that of the Romans, commanded by Belisarius. After a severe engagement, Zano fell; and the puellannius flight of Gellimer exposed the vanity of his recent declaration, that, to the vanquished, death was a relief, life a burthen, and infamy the only object of terror. The Vandals, defeated by their king, hastily dispersed; and the Romans entered the camp without resistance, and disfigured themselves by the massacre and plunder which followed their victory. Belisarius, with the dawn of the next morning, recalled them to order and obedience; and he extended his protection to the suppliant Vandals, exercising a proper vigilance, that they might neither disturb the public peace, nor become the victims of popular revenge. Gellimer had fled to the inaccessible country of the Moors, and Belisarius, defying from the pursuit, resolved to fix his winter-quarters at Carthage. From thence he conveyed information to the emperor, that, in the space of three months, he had achieved the conquest of Africa. The emperor received the news with devout gratitude; and proceeded, without delay, to the full establishment of the Catholic church. “Her jurisdiction, wealth, and immunities,” says Mr. Gibbon, “perhaps the most essential part of episcopal religion, were restored and amplified with a liberal hand: the Arian worship was suppressed; the Donatist meetings were proscribed; and the synod of Carthage, by the voice of 217 bishops, applauded the just measure of pious retaliation.” Gellimer was traced to the mountain of Papua, in the inland country of Numidia, where he had struggled with the hardihood and mortification of the most abject condition, and brought captive to Carthage. When the royal captives accosted his conqueror, he is said to have burst into a fit of laughter. Some might have inferred from this singular circumstance, that he had been deprived of his senses by extreme grief; but to more intelligent observers, this unfathomable mirth insinuated, that the vain and trumpery scenes of human greatness are unworthy of a serious thought. Belisarius returned, A. D. 534, to Constan tinople, and obtained a very signal and splendid triumph. Gellimer advanced slowly in the train of attendants on this occasion; and maintained the majesty of a king. Not a tear nor a sigh escaped him; but he repeatedly pronounced the words of Solomon, Vanity! Vanity! Vanity! All is Vanity! The departure of Belisarius from Africa was followed by new troubles, which continued for several years, and accelerated the ruin of its most flourishing provinces. The taxes were multiplied by arbitrary assessments; the crown lands were resumed, and the Roman soldiers, who had married the widows and daughters of the Vandals, claimed the estates which Gencric had alligned to the victorious troops. The dissatisfaction and mutiny increased; and they were aggravated by soldiers, who had imbibed the doctrines, and were inflamed by the clergy of the Arian sect. A conspiracy was formed at Carthage, against the life of Lececinus, the successor of Belisarius; and a furious sedition was kindled in the Circus which defoliated Africa above ten years. The head of the insurgents was a private soldier, whose name was Stozan. When he fell, another person, called Gotharius, promised to divide Africa with the Moors, and aspire to the throne of Car thage. His reign, however, lasted only 30 days. The rebellion of the Moors continued for some time; but their insurrection was checked by a battle, in which 17 of their princes were slain, and the submission of their tribes was celebrated with lavish applause by the people of Constantinople. Such, it has been observed, was the defolation of Africa in the reign of Julianian, that, in many parts, a stranger would wander whole days without seeing the face either of a friend or an enemy. The nation of the Vandals, amounting to 150,000 warriors, exclusively of children, women, and slaves, had disappeared. Their number was much exceeded by that of the Moorish families, extinguished in a relentless war; and the same destruction was resented on the Romans and their allies, who perished by the climate, their mutual quarrels, and the rage of the barbarians. Procopius confidently affirms, that five millions of Africans were confined by the wars and government of the emperor Julianian. The conquest of Africa, by the Saracens, was first attempted by the arms of the caliph Othman, A. D. 647; and the conduct of the war was entrusted to Abdullah, his foster-brother. After some partial successes and very considerable losses, in a campaign of 15 months, the Saracens retreated to the confines of Egypt, with the captives and the wealth of their African expedition. Their western conquests were suspended near 20 years. At length the fearless Akkah plunged into the heart of the country, traversed the wilderness, in which his succourers erected the splendid capitals of Fes and Morocco, and penetrated farther to the verge of the Atlantic and the Great Desert. The career of Akkah was restrained by the prospect of a boundless ocean. Spurring his horse into the waves, and raising his eyes to heaven, he exclaimed with the tone of a fanatic—“Great God! if my course were not stopped by this sea, I would still go on, to the unknown kingdoms of the west, preaching the unity of thy holy name, and putting to the sword the rebellious nations who worship any other gods than thee.” But this ardent conqueror was recalled from the shores of the Atlantic by the defection of the Africans; and overpowered by a multitude of insurgents, he had only left the resource of an honourable death. His fate was avenged by his successor Zuherl, who vanquished the natives in many battles, and was himself overcome by a powerful army, sent from Constantinople to the relief of Carthage. The conquest of Africa was restored by the caliph Abdalmalek; and after some progress, his farther advances were obstructed by the forces of the eastern empire, under the prefect and patriarch John, a general of experience and renown. But in the ensuing spring, he was compelled to evacuate the fortifications of Carthage; and after a second battle in the neighbour hood of Utica, the Greeks and Goths were again defeated, and
and compelled to embark, and make their escape. The conquest of Africa was finally completed between the years 698 and 709. To the progress and establishment of the Saracens, we may ascribe the decline and extinction of Christianity, on the northern coast of Africa. Gibbon's Hist. of the Decline and Fall of the Roman empire, vol. iv. 301. vol. vi. 111, &c. vol. vii. 168.—186.—349. vol. ix. 449, &c.

When the Saracen empire was divided into seven kingdoms in 936, the African states retained their independence long after the others were subdued by the Turks; but in the beginning of the 16th century, being afraid of falling under the yoke of Spain, they invited the Turks to their assistance; who first protected, and then enslaved them. They are still dependent on the Ottoman empire; not as subjects of the Grand Seignior, but as acknowledging his protection by an annual tribute. On the coasts piracy prevails to such a degree, that some of the chief princes in Europe have been glad to procure liberty to trade in the Mediterranean without mediation, by a pecuniary compensation.

Africa, as it is described by modern geographers, is a large peninsula, connected with Asia by the isthmus of Suez; bounded on the north by the Mediterranean, which separates it from Europe; on the east by the above-named isthmus, the Red Sea, and the Indian Ocean, which divides it from Asia; on the south by the southern Ocean; and on the west by the Atlantic, which separates it from America; and extending from Cape Bon a in the Mediterranean, 35° 10' N. lat. to the Cape of Good Hope, 34° 29'. S. lat., or about 4980 miles, and from Cape Verd 17° 34'. W. long. to Cape Guardafui, near the limits of Babelmandel, 51° 20'. E. long. or about 4750 miles. Its figure is that of a triangle or pyramid, whose base is the northern part, reaching along the Mediterranean from the mouth of the Nile to the limits of Gibraltar, and vertex the Cape of Good Hope; but the sides, extending along the Atlantic to the west, and the Red Sea or Indian Ocean to the east, are very irregular. As the equator passes nearly through the middle of the country, the greatest part of it lies within the tropics; and therefore the heat, augmented by the reflection of the sandy soil of the interior parts, is hardly tolerable to any besides the natives. Those parts, however, that lie near the coasts or in valleys, and on the banks of the rivers, are very fertile and productive; and the country in general is capable of great improvement by cultivation. Its situation for commerce is preferable to that of any other quarter of the globe; as it has a more easy communication with Europe, Asia and America, than either of these has with the west. Its coast is opposite to that of Europe, for almost 1000 miles from east to west, and the distance of one from the other is no where 100 leagues, and in some places not more than 20 leagues. It is separated from Asia only by the Red Sea for a considerable interval from north to south, and their distance is from 5 leagues to 50: it also fronts the southern coast of Asia, though at a greater distance, and it is adapted for commerce by the interposition of islands from Madagascar to Malabar, and by the alternation of the trade winds. Its coast for 2000 miles lies opposite to America, and the western islands, at a distance of 500 to 700 leagues. Befides, it has many large and navigable rivers, which intersect the country in various directions, and form a communication between the internal parts and the surrounding ocean; and its harbours are very numerous and commodious, and capable of being rendered secure by fortifications. The principal rivers of Africa, which we shall more particularly describe under their several names, are the Nile, Niger, Morocco, Gambia, Senegal, Sierra Leona, Benin, Congo, Zaire, Wanza, Bravahul, Rio del Spirito Santo, Kuneni, Macumbo, Lorenzo, Sabba, Kuma, Zambeze, Coavo, Zeere, and Magadoxa. There are many other rivers which will be mentioned in the detail of the several countries to which they belong. On the banks of several of these rivers, there are villages and towns, which carry on a considerable trade, and exchange their valuable commodities, as gums, elephant's teeth, slaves, cives, beads, gold dust for European trinkets, glass heads, bugles, or, at least, some brass or iron tools, and frequently for brandy and other spirituous liquors, of which the inhabitants are so fond that they will part even with their children in order to obtain them. Another source of commerce is found in the mines with which the mountains abound. The mountains of Africa are the Atlas, the mountains of the Moon, the mountains of Sierra Leona; the mountains of Crystal near the lake of Zafan, so called from their mines of that beautiful mineral, and those of falk-petre, stretching easterly from the kingdom of Congo, the Cape-f raco running through the middle of Caffara, and part of the country of the Hottentots, the Table mountains at the Cape of Good Hope, so called from its square figure, and other mountains of Abyssinia. From the discoveries of Mr. Park, a late traveller in Africa, we learn, that a belt of mountains, extending from west to east, occupies the parallels between 10 and 11 degrees of N. lat. This great ridge of mountains is very productive in gold, and more particularly in the parts opposite to Mandingo and Bam- boul on the west, and to Wanga on the east. See Tombeucto.—Most of the countries bordering on the mountains share in their wealth by means of the rivulets that flow from them. There is no country in the world, says Leo Africanus, richer in gold and silver than some kingdoms in Africa; as those of Mandingo, Ethiopia, Congo, Angola, Butua, Quiten, Monomatapa, Chaffi and Monemugi. Father Labat also minutely specifies a great variety of rich mines, of which the negroes have not been able to avail themselves sufficiently, on account of their ignorance of the operations of mining. Copper is a valuable ore found in this part of the globe; and in such abundance, that an opinion prevails, that the mountains called Atlas are all copper. On the northern coasts, the fields, though imperfectly cultivated, produce very large crops of grain; and it is very reasonably supposed, from the qualities of the soil and climate in different parts of the country, that the richest articles of the East and West-India commerce might be obtained from Africa. The spices of Banda, Ternate and Ambonya, might be produced on the rich and fruitful isles of Melinda on the east side, or on those of the large coast on the west side of the country. The cinnamon of Ceylon, the tea of China and Japan, and the coffee of Mocha, might be produced on the same coast; and it has been affirmed, that the fugar of Barbadoes and Jamaica, and also the ginger, cotton, rice, pepper or pimento, with the cocoa, the indigo, and every other plant which is now obtained from these islands, would be as easily produced in Africa, and that the crops would be equally profitable, if they were cultivated with the same skill and industry as in America. Notwithstanding the capability of cultivation and the advantages for commerce which Africa possest, it is lamentable to reflect, that a country which has near 10,000 miles of sea-coast, many large rivers and good harbours, a productive soil and extensive country, should remain destitute of the benefits which arts and industry, and commerce, might afford them. It is a reproach to neighboring nations, that such a country should be so long neglected.
and that the principal advantage derived from it is all of that kind, which entails war and wretchedness, on the Africans themselves, which perpetuates the degradation and misery of the greater part of the human species, and which reflects indelible disgrace on those enlightened and Christian empires, all of the globe, that, amidst all the improvements of modern time and various laudable attempts for accelerating the condition of mankind, have not, at the commencement of the nineteenth century of the Christian era, shouldered a traffic, long known and long lamented, under the denomination of the Slave-trade. Of the nature of this trade, and of the efforts that have been made for restraining, regulating and abolishing it, an account will be given under that article. The principal branches of the African trade are slaves, gold and ivory, which is carried on with the Guinea or western coast, by the exchange of wooden and linen manufactures, hard-ware andspirirous liquors. The Dutch and French, as well as the English, have their different settlements for this purpose. See Africa Company;—Gold, Grain, Ivory and Slave Trade; and Sierra Leone. The Portuguese are in possession of the east and west coasts of Africa, from the tropie of Capricorn to the Equator; which immense tract they became masters of by their successive voyages and fortunate discovery of the Cape of Good Hope. From the coast of Zanguebra, on the easterly side, they trade not only for the articles above-mentioned, but likewise for several others, as caco, abac, cievo, ambergriz, and frankincense. The Dutch have had also settlements towards the southern parts of the continent, in the country called Caffari, or the land of the Hottentots; and they were long in possession of the Cape Town, which is well settled and fortified, till it was captured by the English in 1705, but restored and made a free port by the peace of 1801; and here their ships bound for Indost were accustomed to put in, and trade with the natives for their cattle, in exchange for which they gave them spurious liquors. Some laudable attempts have been lately made for establishing colonies on the western coast of Africa, with a view of civilizing the inhabitants, introducing commerce among them, and gradually abolishing the slave-trade. M. Wadstrom in his Elay on Colonization, published in two parts in 1794 and 1795, has given a particular account of these attempts; but we are far from observing that their permanent utility is very doubtful and precarious. See Aquapin, Bulah, Sierra Leone, and Slave-trade.—With respect to the inland parts of Africa, they seem in all ages of the world to have been in the same barbarous and uncivilized state in which we find them at present. To account for this fact an ingenious writer observes, that there are in Africa none of those great inlets, such as the Baltic and Adriatic seas in Europe, the Mediterranean and Gulf in both Europe and Asia, and the Gulph of Arabia, Perfo, India, Bengal, and Siam, in Asia, for carrying maritime commerce into the interior parts of that great continent; and the great rivers of Africa are at too great a distance from one another to give occasion to any considerable inland navigation. Besides the commerce which any nation can carry on by means of a river, which does not break itself into any great number of branches or canals, and which runs into another territory before it reaches the sea, can never be very considerable; because it is always in the power of the nations who possess other territory to obtrude the communication between the upper country and the sea. Smith's Wealth of Nations, vol. i. p. 32. The chief capes on the African coast are Bona, Bissau, Canton, Geier, Nor, Bojador, Barbas, Ward, Morte, Palmas, Three Points, Coast, Forks, Lopez, Negro, Good Hope, Fumos, Coronado, Sebastian, Delgado, and Guardafui. There is but one strait in Africa, which is called Babelmandel. Modern geographers are not agreed about the division of Africa. Some have divided it into two general parts, under the denominations of the country of the whites and that of the blacks. The former comprehends Egypt, Barbary containing six subdivisions, viz. Barea, Tunis, in which is Tripoli; Tripoliz, in which is Algiers; Fez, Morocco; Dara, Biledugurid, and Zaara or the Defert. The country of the blacks contains the following provinces on the sea-coast, viz. Nigritia, Guinea, Congo, Caffarinia, Sofala, Abex, Ajan and Zanguebar; and in the interior parts, Nubia, Ethiopian or Abyssinia, Moenomugi and Monomotapa. The following general distribution will direct the reader to those articles in this dictionary, where he may find a further account of the several kingdoms and states of which it consists, viz. 1. Egypt. 2. Upper Ethiopia, comprehending Nubia, Abyssinia and Abex. 3. Zanguebar, with Anian or Ajan, which lies on the coast of Africa. 4. Lower Ethiopia, in the interior part, Moenomugi, Monomotapa and Caffarinia, called by some the land of the Hottentots, which lie on the south. 5. Guinea, upper and lower, on the west and west south. 6. Nigritia or Nigerland, in the middle of Africa, extending almost quite through the country, from coast to coast, on both sides of the river Niger. 7. Sahara or Zaara, or the Defert, to the northward of Nigritia. 8. Biledugurid, to the northward of Sahara. 9. The empire of Fez and Morocco, containing the north-west part of Africa. 10. The coast of Barbary, on the north, containing the countries of Algiers, Tunis, Tripoli and Barea. Major Rennell in his Geographical Illustrations of Mr Park's journey, represents north Africa as composed of three distinct parts. The first and smallest is a fertile region along the Mediterranean, commonly distinguished by the name of Barbary; and which, on the supposition that the Mediterranean was once dry land, with the exception of a lake for the surrounding rivers, might be regarded as a part of Europe; because it possesses all the European than of the African character. The second part is what may be deemed the body of north Africa, comprised between Cape Verd and the Red Sea, on the west and east; and having the Great Defert or Sahara and its members, on the north; the Ethiopian ocean and south Africa on the opposite side. The prominent feature of this immense region is a vast belt of elevated land, generally running from west to east about the tenth degree of latitude, and extending from Cape Verd, its western extremity, to the mountains of Abyssinia, the eastern extremity; which has on the north side a lofty tract, that turns the Nile to the northward beyond Abyssinia, and on the south a multitude of rivers, some of them very large, that descend from that side, and join the Atlantic and Ethiopian seas, from the Rio Grande on the west to Cape Lopez on the east. A similar ridge stretches to the south, through the middle of south Africa, and forms an impenetrable barrier between the two coasts; on this account the Portuguese in Congo and Angola have never been able to penetrate to the coast of the Indian Ocean. From Mr Bruce (Travels, vol. iii. p. 668.) we also learn, that a high chain of mountains from 6° runs southwards through the middle of Africa; and he supposes the gold of Sofala to be drawn from these mountains. Major Rennell supposes, that the surface of the Sahara has a general dip to the northward, whilst it declines also to the eastward; and that the rivers receive all their supplies from the south, no streams of any bulk being collected
lected in the Defert. Hence he infers, that there must be a large hollow in the interior of Africa, between the high land of Nubia on the call, and Munding on the west, and of which the mountains and Defert form the other two sides; similar to the cavity in Asia, to whose waters the Cufian and Aroel serve as recipients. The third, part of north Africa, in the distribution of Mr. Renell, is the Great Defert or Sahara, and its members, consisting of the lesser defects of Jarras, Bilma, Barea, Sort, &c. For the description of this part, see Sahara.

Many laudable attempts have been lately made, under the encouragement afforded by the African Association, for discovering the interior, and hitherto very much unknown, parts of Africa. Mr. Park, a very intelligent and intrepid, and it may be justly added, a very successful traveller in this mission, has made several important discoveries. Having left Bilma, N. lat. 13°. 35', about 200 miles from the mouth of the Gambia, Dec. 2, 1795, he returned thither after an absence of eighteen months. In this long interval of time, he explored the interior of Africa to the distance of 1200 miles, in a direct line from Cape Verd; proceeding in a tract bounded by the 15th and returning by the 12th parallel of latitude. His first station was Medina, the capital of the kingdom of Woolli, whence he pursued his journey by Kolor, to Koojar, the frontier towns of this country. Here he refreshed himself with a liquor made from corn previously malted, with bitter roots instead of hops. After passing a wilderness of two days journey, he reached Tallika, the frontier town of Bondoo, and at Patte-conda, the capital, he was introduced to the king Almami. From Bondou Mr. Park proceeded to the kingdom of Kajaaga, and having been ill treated at Joag, the frontier town, he proceeded his journey to the kingdom of Kasson, and passing Tessef, the frontier town, arrived at Koonaka, the capital. Here he was treated kindly by the king; and having remained here for some time, he resumed his journey, and arrived at Keemoo, the capital of Kaarta. Following the route which Dalil, the king of this country, prescribed, through the kingdom of Ludamar to that of Bandara, he paddied Marina, on his way to Simbing, the frontier town of Ludamar.

Having left Jarra, the frontier town of this country, he pursued his journey and reached Sampa. He was afterwards feized by a party of Moors, and conducted back to Benown, the residence of Ali, king of Ludamar, where he was treated with great severity by the bigotted and malevolent Moors, and cleaped death only by a pilot's twice mulling fire. At length he fortunately escaped, and reached a negro town called Wawra, belonging to Manlong, king of Bandara; and passing through several towns of this kingdom, he arrived at Segg, on the banks of the Niger, which he found to be as broad as the Thames at Westminster, and flowing slowly to the eastward. Pursuing his course in this direction along the banks of the river, he paddied through the towns of Kibba, Madengo and Kea, and reached Moorzan. Here he crossed the Niger to Stilla, which was the termination of his journey to the call. In his return settward on the northern bank of the river, he arrived at Bamumoo, the frontier of the kingdom of Bandara, and quitting the Niger at this place, he proceeded to Sibidooloo, the frontier town of the kingdom of Munding. Hence he pursued his journey to Kamalia, where he remained seven months. In his progres from Kamalia he traversed the Jalonko wilderness, by an interval of 100 miles, and having crossed the Black River, a principal branch of the Senegal, he arrived at Malacotta; and after a journey of 500 miles reached Medina, the capital of the king of Woolli's dominions, on the 4th of June 1797, which he had left in December 1795. From hence he proceeded to Pishina, and afterwards returned to England.

All the inhabitants of the African continent, though distinguished under a variety of denominations, according to their different situations, origin, tribes and governments, are commonly included under the twofold distinction of Africans and Arabs, or Whites and Blacks. The white Africans, according to Leo Africanus, (l. 1. c. 9.) and Marmol, (l. 1. c. 24.) are divided into five nations or tribes, viz. the Zanjagans, Musmudans, Zeneth, Gusmanians, and Hoars; and to these 500 capital families of Berbiers, and the most considerable ones in Africa, owe their origin. They first settled in Barbary, and from thence gradually dispersed themselves over the greatest part of Africa. For an account of the black Africans, see Blacks and Negroes.

The Ancient and Moderns have concurred in giving a very unfavourable representation of the disposition and character of the native Africans. Lucan (l. vi.) Virgil (Aen. viii. cum not. Servii) and many others, describe them as proud, insolent, thievish, revengeful, addicted to all kinds of ill, cruel, inconstant, superstitious and cowardly. So general has been the unfavourable opinion entertained concerning their people, that it has given occasion to a common proverb, that all the inhabitants of the globe have some good as well as ill qualities, except the Africans. But this degeneracy of character is owing more to their bad education, their tyrannical governments, and their unfedted state, than to their country; for this has produced several distinguished persons, among whom we might enumerate St. Cyprian, Augustin, and Tertullian, in the class of divines; Hanno, Hannibal and Afrubal, in the list of heroes; Terence among the poets, and many others. We might also appeal to the industry with which they have formerly cultivated their lands, and applied to commerce and the useful arts. If they are now, too generally, ignorant and depraved, idle, dishonest or superstitious, we are to seek the cause of the evil in the nature of their governments, and the inattention and neglect with which they have been treated. The religion of the native Africans has been the grossest kind of idolatry, blended with the magical and superstitious rites of the ancient Egyptians. Nevertheless we discover many relics of Judaism not only in Abyssinia, but in many other parts of Africa, where many Jews, driven there at a very early period, or by the dispersion after the destruction of Jerusalem, or by the persecutions of later times, have settled and maintained their religious worship and ceremonies. Christianity was also introduced at an early age of the Christian era into this country, and has subsisted, under one form or other, and amidst great difficulties and corruptions, in various districts of Africa to the present day. The interior parts of Africa remain still in the darkness of Paganism, as they have been in a great degree inaccessible to the most adventurous of the Europeans. Indeed, in the maritime provinces of this great peninsula, and especially where the Portuguese have their settlements, there are several districts in which the religion of Rome has prevailed over the savage superstitious of that barbarous region. But the ingenious historians, even of the Roman Catholic persuasion, who have given accounts of the African colonies, acknowledge, that of the profelytes made to the faith of the gospel few deserve the denomination of Christians; as most of them retain the abominable superstitious of their ancestors, and the heat among them dis honour their profession by various practices of a most vicious and corrupt nature. The millions in Africa have been much neglected by the Portugues; and the few missionaries
millionsaries that were sent thither were men void of learning, and destitute almost of every qualification that was necessary towards carrying on such an important undertaking. What may be the result of Protestant missions, more lately undertaken and prosecuted with a considerate degree of zeal, time alone must discover. Those who liberally patronize and encourage them, anguished from circumstances that have already occurred increasing success. But the most prevalent religion in Africa (if we except Paganism) is that of Mahommet, which is blended and intermixed with tenets and practices, that are more or less of Pagans, Jews, and Christian original. See Marabouts. Of the habits and manners of the Africans, an account will occur under the appellation of Arabs, under the different denominations by which they are distinguished, as Moors, Negroes, &c. and in the description of the different countries in which they reside. The interior parts of Africa are inhabited, according to Mr. Park's report, by three distinct races of men; viz., the Mandingoos or proper negroes, native children of Nigeria; the Foulahs, or white Abyssinians of Tobkay and Pliny, who have neither the crisped hair, the thick lips, nor jetty blackness of the Mandingoos; and the Moors, natives of Arabia, who, in their perons and complexion, exactly resemble the Mulattoes of our West Indies, and who are devoted followers of Mahommet, and the most intolerant, perfidious and fanguinary of the human race. Though these three nations are frequently intermixed, yet the negroes, whether Mandingoos or Foulahs, generally inhabit to the south of the moors. The negroes are for the most part husbandmen: the moors, like their Arabian ancestors, are moving shepherds, or wandering merchants; and those, from the earliest times, to have overpowered the habitable parts of the great African desert, and the Oafoes or fertile islands, thinly scattered through that sandy ocean. Hence they extended their arms southwards, and made themselves masters of several of the negro kingdoms on the Niger; so that their dominions form a narrow belt running from west to east on the shores of the Desert, from the Atlantic coast to the mountains of Abyssinia. The common boundary of the moors and negroes forms a striking feature in the moral, as well as in the political and physical geography of Africa. Herodotus (compare Eutrop., c. 32. and Melpomene, c. 197-pp. 117 and 568, Ed. Wette,) fixed the boundary of the Libyans and Ethiopians, i.e. of the moors and negroes, near the banks of the Niger; and in this respect circumstances do not seem to have been materially altered since his time. Mr. Park observes, that the population in the countries which he visited was not very great, considering the extent and fertility of the soil, and the ease with which lands were obtained. He found many extensive and beautiful districts entirely destitute of inhabitants; and, in general, the borders of the different kingdoms were either very thinly peopled, or entirely deserted. Many places, such as the banks of the Gambia, the Senegal, and other rivers towards the coast, were unhealthful, and on this account unfavourable to population. To this circumstance, it is chiefly owing, that the interior countries abound more with inhabitants than the maritime districts; for the negro nations, observed by this traveller, though divided into a number of petty independent states, failed chiefly by the same means, live nearly in the same temperature, and possess a wonderful similitude of disposition. Perhaps the circumstance of the slave-trade may suggest another cause of the poverty of native inhabitants towards the sea-coast. Our traveller concurs with others in representing the disposition of the women as uniformly benevolent; in proof of this

The following incident is related. When Mr. Park was prohibited by the king of Bambara from crossing the Niger, and ordered to pass the night in a distant village, none of the inhabitants would receive him into their houses, and he was preparing to lodge in the branches of a tree. In this state, exhausted with hunger and fatigue, and unprotected from a storm, he was relieved by a woman who was returning from the labours of the field. To her he was kindly invited; and his distress was alleviated by the tender attention which he experienced. The female part of the family, says Mr. Park, lightened their labour by songs, one of which was composed extempore: for I was myself the subject of it. It was sung by one of the young women, the reft joining in a fort of chorus. The air was sweet and plaintive; and the words, literally translated, were these:—

"The winds roared, and the rains fell.—The poor white man, faint and weary, came and sat under our tree. He has no mother to bring him milk; no wife to grind his corn.—Chorus. Let us pity the white man; no mother has h¢, &c. &c." These words have been since formed into verse by the Duchy of Devonshire, and set to music by Ferrrari; and the song is as follows:

I.
The loud wind roar'd, the rain fell fast;
The white man yielded to the blast:
He sat down, beneath our tree;
For weary, fat, and faint was he:
And all I no wife or mother's care,
For him, the milk or corn prepare:

Chorus.
The white man's in our pitly care:
Ah! no wife or mother's care,
For him, the milk or corn prepare.

II.
The storm is o'er; the tempest past:
And mercy's voice has hush'd the blast:
The wind is heard in whispers low,
The white man far away must go—
But ever in his heart will bear
Remembrance of the negro's care.

Chorus.
Go, white man, go—but with thee bear
The negro's wife, the negro's prayer:
Remembrance of the negro's care.

From Mr. Park we further learn, that with respect to the property in the soil, the lands in native woods were considered as belonging to the king, or, where the government was not monarchical, to the state. When any individual of free condition had the means of cultivating more land than he actually possessed, he applied to the chief man of the district, who allowed him an extension of territory, on condition of forfeiture, if the lands were not brought into cultivation by a given period. The condition being fulfilled, the soil became vested in the possessor; and, for ought he knew, descended to the heirs. The Africans appear to have no astronomical knowledge; and the little geography to which they pretend is erroneous; for they suppose, that the earth is an extended plain beyond which is the sea, or river of salt-water; and on the farther shores of which are situated two countries, called Tobadou, and Jong sang do, "the land of the white people;" and "the land where slaves are sold." Park's Travels in the interior districts of Africa in 1795, 1796, 1797. Raffoin.

Africa, the name of a sea-port of Tunis on the coast of Barbary,
African, in **Antiquity**, is represented on medals by the head of a woman, dressed in the skin of an elephant, with the trunk projecting forward in front. This kind of attire is peculiar to some queens of Egypt. Near the figure of Africa we frequently see a scorpion, serpent, or lion, animals belonging to this part of the world, and mountains alluding to the seven mountains of Mauritania Tingitana.

**African Association** was formed in 1788, with a view of promoting the discovery of the interior parts of Africa. Out of 93 members, of which this society appears to have consisted, a committee of five gentlemen was elected, for directing its funds, conducting its correspondence, and the choice of the persons to whom the geographical mission was to be assigned. These gentlemen were Lord Rawdon, the Bishop of Landaff, (Dr. Watton) Sir Joseph Banks, H. Beaufoy, Esq. and Mr. Stuart. The two first persons that were appointed for accomplishing the laudable object of the society were Mr. Ledward and Mr. Lucas. The former undertook, at his own desire, the perilous task of traversing from east to west in the latitude attributed to the Niger, the widest part of the continent of Africa. With this view he arrived at Cairo in August 1788; but death disappointed the hopes that were formed from his projected journey. For a short account of the singular adventures of this extraordinary man, see **Ledward**. Mr. Lucas embarked for Tripoli in October 1788, with instructions to proceed over the desert of Zaara to Fezzan, to collect, and to transmit by way of Tripoli, whatever intelligence he could obtain respecting the interior of the continent, and to return by way of Gambia, or the coast of Guinea. The peregrinations of this traveller terminated at Meccafla, in Feb. 7. 1809; and he was able to transmit to the society only the result of his conferences with persons who were travelling with him to Fezzan. See **Fezzan, Bornou, and Cashna**. The object of Mr. Park's mission was to ascertain the course, and, if possible, the rise and termination of the Niger, and to use his utmost exertions for visiting the principal towns in its neighbourhood, particularly Tombouctoo and Housa; and of the result of it some account is given in the preceding article, and will be farther found under the several heads to which we have referred.

**African Company. See Company.**

**African Islands** are distributed into three which lie in the Eastern or Indian Ocean, and those of the Western or Atlantic Ocean. The former are ZOOGOTA or SOGOTA, Babelmandel, Comora islands, Mauritius, Madagascar and Bourbon. The latter are St. Helena, Ascension, St. Matthew, St. Thomas, Annaba, Prince's island, Fernando Po, Goree, Cape Verde islands, Arguin island, Canary islands, Madeira, Porta Santo, and the Azores.

**Africanus, Julius**, in **Biography**, an eminent Christian writer and chronologer, who flourished in the beginning of the third century. It is not certain, whether he was a native of Palestine, or of Africa; but as he was employed in an embassy to the emperor Heliogabalus, between the years 218 and 222, for the restoration of Emmas, which was afterwards called Nicopolis, and as he attended the lectures of Heraclos, at Alexandria, some time before the year 231, there can be no doubt concerning the time in which he lived. Suidas says he was of Africa; but his more constant residence seems to have been in Palestine, where he was probably born. The works ascribed to this author by Eusebius and Photius are "the Celii," a collection of passages from various authors, chiefly on physical topics, of which only a few fragments remain; "Chronology," in five books, containing a recital of events from the creation to the year of Christ 21; and two letters, "one to Origen," concerning the history of Susanna, annexed to the book of Daniel, which he considers to be a forgery, and "another to Ariilides," for reconciling the disagreement between Matthew and Luke, on the genealogy of Christ. The Celii is ascribed by Vakhtia, J. Scaliger and Du Pin, to another person called Sextus, who was an African and a Gentile philosopher. Jerome does not include it in the list of the works of Africanus; but Volusius and Wetstein believe it to have been written by him. Julianus Africanus was undoubtedly a Christian, nor does antiquity justify the opinion that he was originally a heathen. The chronology is much commended by Photius, as concise and yet comprehending every thing necessary to be related. Some fragments of it are preserved; and have been freely used both by Eusebius in his chronicle and by other historians. Of the letter to Ariilides, there is a large fragment in Eusebius's Ecclesiastical History, and the entire letter to Origen is extant, which is learned and critical, and does great honour to its author. Africanus affords a valuable attestation to the two Gospels of St. Matthew and St. Luke; and we have sufficient reason to believe, that this great and learned man received as scripture the books generally received by Christians in his time. "We may glory," says the excellent Dr. Lardner, "in Africanus as a Christian. For it cannot but be a pleasure to observe, that in those early days there were some within the inclosure of the church of Christ, whose ingenuity abilities rendered them the ornament of the age in which they lived; when they appear also to have been men of unspotted characters, and give evident proofs of honesty and integrity." Lardner's works, vol. ii, p. 431.

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AFRICUS, Leo. See Leo Africanus.

AFRICUS, Scipio. See Scipio.

AFRICERONES, a people, according to Ptolemy, of Libya, a province of Africa.

AFRICTA denotes a kind of wafers, which the ancients used in their sacrifices. Arnob. lib. vii.

AFRICQUE, in Geography, a small town of France, in the department of Aveyron, six miles east of Vabres.

AFRIQUE, a mountain of France in Burgundy, extending between Dijon and the small town of Chagny about ten leagues. At the foot of these mountains the vines are found which yield the Burgundy wine.

AFSHAR, the denomination of a Turcoman tribe, which is divided into two or three clans, of one of which the father of Kuli Khan was chief.

AFSLAGERS, persons appointed by the burgomasters of Amsterdam, to preside over the public fairs made in that city. They must always have a clerk of the secretary's office with them, to take an account of the fale. They correspond to our brokers, or auctioneers.

AFT, the hinder part of the ship, or that nearest the stern. See**AFT.**

AFTER, is a term applied to any object in the hinder part of the ship, as after-hatchway, after-hall, etc.

AFTER-BIRTH, in Midwifery. See Placenta.

AFTER-GRAPE, or AFTER-MATH, in Agriculture, denotes the second crop, or grape which springs up after mowing; or grape-math that is cut after some kinds of corn.

AFTER-MOON, the latter half of the artificial day, or that space between noon and night.

The ancient Romans dedicated their afternoons to diversi-
tion, as their foremen to business; and their usual diversions were the game called *pils*, and other exercisef of the body, especially walking or riding. These laded till the eighth or ninth hour, answering to our three o’clock, which was the time for the baths. After bathing, they anointed and perfumed themselves; and, about the tenth hour, went to *canes supper*, about three hours before sun-set; which done, the day was ended at the public spectacles, theatrical or amphitheatrical sports; with music, singing, and the like.

After-supers usually comprehend all those which are extended on the mizen-mast, and on the stays, between the mizen and main-masts.

After-throes, or pains, enixus posteri, dolores post partum, in Midwives, are pains resembling labour pains, though ordinarily less violent, which occur after the expulsion of the fetus and placenta. They are occasioned by the contraction of the uterus to expel congested blood, parts of the membranes, or other foreign bodies from its cavity, as well as to reduce the capacity of the blood vessels, which during pregnancy acquire a considerable magnitude, to the size they had prior to conception. They are more or less severe in different women, but are found very rarely to occur after first labours. They are more frequent, severe, and lasting, after the birth of large, than of small or maddling fixed children, or after labours that have terminated in an unusually quick and rapid manner, particularly if the placenta has been extracted almost immediately after the birth of the child. Mr. White, of Mancheter, to whom we are indebted for many valuable practical observations, on the manner of conducting labour, is of opinion, that after-pains are almost entirely occasioned by extracting the shoulders and body of the child, immediately after the birth of the head, instead of waiting and suffering them to be expelled by the pains; and says, that by pursuing a different course, and leaving the whole of the process to nature, in ordinary cases, he had been so fortunate, that, in the course of several years, he had neither been under the necessity of introducing his hand into the uterus to extract the placenta, nor to give opiates or other medicines to quiet after-pains, except in a single instance, “the after-pains having been so trifling, under his management, both with regard to violence and duration, as not to deserve notice.” Treatment on the management of pregnant and lying-in women, p. 111. See more on this subject, under the word Labour. After-pains, even when most severe, are still unattended with danger. They are best relieved by the application of warm cloths, with gentle friction to the abdomen, by giving internally twenty-or thirty drops of the tincture of opium, or by affiduously rubbing upon the region of the uterus, a mixture composed of four parts volatile liniment, and one of the tincture of opium, by administering frequent draughts of warm gruel, and giving callor oil, or some other gentle purge on the following day. See Labour.

After-swarm, in speaking of bees, are secondary or posterior swarms, frequently found to quit the hives within a fortnight after the first.

Butler tells us, that the after-swarms differ from the prime, in that the latter are directed by the vulgar, or crowd of bees, whose only rule is the fulness of the hive; whereas the former are appointed by the ruling bees, and indicated by a noise or call, which thence make for the space of two or three days, as it were to give warning to the common herd to prepare for a march. Within eight or ten days after the prime swarm is gone, if the princes next in order find a competent number relaxed and ready, she begins to tune her treble voice, in a mournful and begging note, as if she prayed the queen-mother to let them go; to which voice, if the vouchsafe a reply, by tuning her base to the other’s treble, it marks her consent; in consequence of which, within a day or two after, if the weather allow, the new swarm appears. If the prime swarm be broken, the after will both call and swarm the sooner, perhaps the next day; in which a third, sometimes a fourth, succeeds in the same season: but all usually within a fortnight after the prime swarm. See Swarm.

AFTO, in Botany, a name given by the natives of Guinea, to a plant of the crysirum kind, which they grind to powder, and take as snuff, to cure the head-ach. Pettier has called this plant the wooden and woolly crysirum, or hedge-humillard, of the coasts of Guinea. Phil. Trans. N. 232.

AFUERA, in Geography. See AFFUERA.

AFWESTAD, a large copper-work, belonging to the crown of Sweden, situate on the river Dal-Elbe, in the province Thalland or Dalecarlia. It resembles a town in its extent, and has its own church. Copper-plates are manufactured, and the small copper money is coined in this place; which has also a royal poll-houfe.

AFZELIA, in Botany, a genus of the didynamia angiospermae class and order : the characters of which are, that the calyx is quinque-partite, the corolla campanulate, and the capsule round, acuminated, double-celled, gaping at the apex and pellucidous; with hemispheric receptacles. There is one species, viz. the *Afzelia Caffiodae*. This is the Afzelia of Gmelin, which Dr. Smith says is too uncertain to be honoured by such a name, after that of Adam Afzelius, professor of botany in the academy of Upsal; and therefore he has appropriated it to a new species of the *decandra madagascariens* class and order, near the *Hymenen*, and of the natural order of leguminosae: the essential characters of which are, that the calyx is tubulofus with a limb quadrifid, deciduous; the petals are four, unguiculatcd, with a very large head; the filaments are two, superior, fertile; the legumen many-celled; the seeds arillated at the base. It is found in Africa, near the equinoctial. Linnean Trans. vol. 4. p. 221.

AGA, in the language of the Moguls, &c. signifies a great man, lord, or commander.

In this last sense, the term is also used among the Turks: thus, the Aga of the Janizaries is their colonel; and is the only person who is allowed to appear before the Grand Seignor, without his arms across his breast, in the posture of a slave. The *capk aga*, is the captain of the gate of the feragio.

The title aga is also given, by way of courtesy, to several persons of distinction, though not in any office, or command, to entitle them to it; as to the eunuchs of the feragio.

The chief officers under the khan of Tartary are called by this name. And among the Algerines, we read of agas chosen from among the *boluck bajlis* (the first rank of military officers), and sent to govern in chief the towns and garrisons of that state. See Algiers.

On some occasions, in lieu of aga, they say *agasi*, or *agassi*. Thus the aga, or governor of the pages, is called *capk agasi*; and the aga or general of the horde, *jubilar agassi*.

Aga, or Adja, in Geography, a village about half a mile from Anamaboa, on the gold coast of Africa, where the Dutch formerly had a fort; and where, it is said, they have now one factor. Its situation is by no means favourable to commerce, as the landing is difficult and dangerous; but the adjacent country produces several valuable commodities, and among others a very fine cotton.

*Agar Cretenimum*, in Botany, signifies the Spanish milk-thistle.

*Aga*.
A. See Agar.

AGAZI, or Agaci, in Geography, a denomination given in Abyssinia to a class of those shepherds, who are said to have been employed by the descendants of Cush, the first inhabitants of the country, in dispersing the produce of Arabia and the eastern coast of Africa over the Continent, and who thus acquired wealth and influence. The nobility and most warlike of all the shepherds were those that inhabited the mountains of Hadab, a considerable ridge reaching along the Red Sea, from the neighbourhood of Mafiafah to Suakim, and who by degrees extended themselves throughout the whole province of Tigre. *Agaz*., says Mr. Bruce, denoted the nobles and chiefs of the armed shepherds, whence came their title, king of kings; and the plural of this is *Agaci*, or, as it is written in the Ethiopic, *Agazi*. The king of Amalek, mentioned in Samuel, ch. xv. and Sam. was, according to this writer, an Arab shepherd. Bruce’s Trav. i. p. 387. Of this appellation, Ludolf (Hist. Ethiop. b. i. c. 1) gives a different etymology. The Agazi affumed this denomination, and called their country *Geze*, either on account of the liberty they enjoyed, or because they transported themselves from one place to another; the radical word *Geza* admitting both these significations. Their language is *Gez*.; they have always had letters among them; and they are all circumcised, both men and women. This right they profess to have derived from the family of Ishmael and his descendants, with whom they were connected at an early period in their trading voyages.

AGABEN. See Agabeni.

AGABUS, in Scripture history, a prophet, and as the Greeks say, one of the 70 disciples of our Saviour (Acts xii. 28) A.D. 43. He predicted a great famine, which, as St. Luke informs us, occurred in the 4th year of Claudius, A.D. 44. It is also mentioned by profane historians, Sueton. in Claud. c. v. 1. In p. 698 ed. Pitra. Josephus, ant. l. xx. c. ii. § 1. Oper. l. t. p. 565 ed. Haverc. On this occasion the Christian at Antioch sent their contribution by Paul and Barnabas to Jerusalem, for the relief of their distressed brethren. Helena, queen of Adiabene, also assisted the Jews with corn and other provisions from Egypt and Cypros, as Josephus (ubi ibid.) informs us. Several years after this period (viz. A.D. 58) Agabus had an interview with St. Paul, at Caesarea, and foretold the sufferings that awaited him at Jerusalem, whither he was determined to proceed, Acts xxii. 10. From the Greek we learn, that Agabus suffered martyrdom at Antioch, and they observe his festival, March 8. The Latins, since the 9th century, have kept it, Feb. 9.

AGABRA or EAGABRA, in Ancient Geography, a town of Boethica, in Spain.

AGADEX, one of the Fox islands in the Northern Pacific Ocean.

AGADEZ, in Geography, a kingdom of Africa, placed by Leo Africanus and Marmol, directly east of Yguida, and by De Lisle, south and south-east of the city. On the east it has the kingdom of Bornou; on the north, north-east, the desert of Lempita, and Yguida; on the south, Cano; and on the west, the provinces Zappara and Guber, and a lake north of the Niger. This province is divided into two districts, the northern, called on account of its fertility, the Defert, and the southern, fertile in grazes, corn and cattle. De Lisle mentions three considerable towns in the latter division, viz. Agade, the capital of the whole province, Deyhir and Secmania, little inferior in wealth and population to the metropolis. He adds, that fenn is produced here in great abundance, and that the principal trade of the natives consists in this article and manna. The southern inhabitants feed cattle, live in the open country, and resemble in their manners the wandering Arabs. Agad, the capital, called also by the Arabs Andegafa, is situated in a valley between two high mountains, and at the spring of a considerale river that waters the southern country and discharges itself into the Niger. According to D’Anmvel’s account, the inhabitants are chiefly merchants, and strangers, who have settled there, enclosed the town with walls, and built their houts in the Morefo fashion. The sovereign is said to be tributary to the king of Tombole, and yet to prefer the trade of a powerful, independent, and despotic prince. Mod. Un. Hist. vol. xiv. p. 262. 8vo. The province of Agadez is placed by Major Remell, in his map of North Africa, in the eastern division of the Great Desert, or Sahara, and the capital in N. lat. 25° 15'. E. long. 15° 14'. In the proceedings of the African association, Agadez is made a province of the Gulph empire, and the inhabitants are said to load their immense caravans with the salt of Bornou, and to engross the profits of this invaluable trade. The only acknowledged method they make for it is the trifling price which they pay in brass and copper (the currency of Bornou) to the neighbouring beasts.

AGADNA, a small town in the island of Guam.

AGAG, or AGACA, a kingdom of Africa, which depends on the empire of Monomotapa. It is bounded on the east by the country of the Negroes, and on the north by the kingdom of Taua. The capital is of the same name.

AGAGEER, a name given in Abyssinia to those whose business it is to hunt and kill elephants. Their appellation is formed from the word Agar, which signifies to hough or ham-tring with a sharp weapon. These persons dwell constantly in the woods, and live entirely upon the flesh of the beasts which they kill, chiefly on that of the elephant and rhinoceros. They are light and agile, both on horsecback and on foot; of a swarthy complexion; and have European features. None of them are woolly-headed. The manner in which they kill the elephant is as follows: two men, altogether naked, mount the same horse, the foremost manages the horse, and the hindmost has a broad sword, such as the Schavanians use, and procured from Triege; the handle of which he grasps with his left hand, whilst with his right he takes hold of a part of the blade, round which whip-cord is twilled. The edges of the sword are as sharp as a razor, and yet he thus carries it without a scabbard. When the elephant is found feeding, the horsemans runs before him, and when he flies, crosses him in all directions, using at the same time a variety of expressions and exclamations, which he is foolish enough to believe the elephant understands. The animal incensed by this noise, attempts to seize the horse and rider with his trunk, or proboscis; and for this purpose he turns himself about in every direction, instead of making his escape. The horsemanship from some evolutions of this kind, rides up to the side of the elephant and drops his companion on the off-side; and whilst the rider engages the attention of the animal, the other person gives him a stroke above the heel, in that part which in the human subject is called the tendon of Achilles. At this moment the horsemanship turns round and takes up his companion; and runs with full speed after the tail of the herd; and sometimes an expert Agageer will kill three out of one herd. The blow commonly separates the tendon, or at least wounds it to such a degree that the weight of the animal breaks it. In this state the horsemanship, and his companions, speedily dispatch the animal with their javelins and lances; when he is slain, the flesh is cut off the bones into strings, and these are hung on the branches of trees to dry, without salt; and are then tied by for their stock of provision in the season of the rains.
The elephant sometimes reaches the most dextrous riders with his probosces; and having daffled the horse to the ground licks his feet upon him, and soon tears him limb from limb. Bruce's Travels, vol. iv. 297. &c. See Elephant.

AGAI. See Agio.

Agai, in Geography, a small port of Provence, about two leagues from Frejus.

Agalactia, in Physt, signifies a deficiency of milk in a mother, who is therefore called by Hippocrates alla-

Agallega. See Gallega.

Agallochum, See Gallega.

Agallochum, a medicinal wood imported from the East Indies, usually in small bits, of a very fragrant scent. The word is derived from the verb agallochoun, agglof, in allusion to the excelsity of its odour. This wood is otherwise called lignum aloes, and xylolne, q. d. alox-wood, not that it is produced from the common alox-plant, which yields the misnamed juice of that name. It is the produce of a tree of a very different kind, growing in the East Indies, particularly Sumatra and Cochinchina, or the Excæra Agallocha of Linnaeus. Some call it likewise lignum paradisi. It yields a concrete oil. See its chemical history in Neumann's Works, p. 420.

It is of a bluish purple colour, marked with veins and spots, very heavy and bitter; when burnt it yields drops of an astringent liquor, and a sweet aromatic flame. It is hot and drying, and esteemed a great strengthenor of the nerves in general, but particularly of the head and stomach.

The various names and accounts given of the agallochum are so very different, as well as the specimens of it common in our shops, that it does not seem to be properly known amongst us.

Bauhin and the Moderns distinguish three sorts of agallochum, which differ either as to the excellence of their quality, or to the country that produces them; accordingly they call the first calabac, which is the most excellent agallochum, denominated also calambac fidorum, kaman Cochinchinum, and fokio. The second is the agallochum of the spots, denominated lignum aloes. The third is also called calabac, agallochum sylvestre, and lignum aloes Mexicanum.

M. de Lourrie, whose long residence in Cochinchina, whence the real and most esteemed agallochum is exported to all the Asiatic markets, led him to an acquaintance with this substance, which has described the tree which produces it, and gives a history of its formation. To the genus of plants, of which this is a species, he gives the name of aloexylum, and the particular species he calls aloexylum verum. The resinous concretion which is found in these trees, when in a decayed state, is the true agallochum, the history of which is satisfactorily detailed in a Memoir, on its true nature and origin, in vol. i. of the Memoirs of the Royal Academy of Sciences, at Lisbon.

Agalmata, in Antiquity, originally denoted the ornaments of temples and statues; but came afterwards to be popularly used for the statues and temples themselves, and for the imitations and images on a seal.

Agama, in Zoology, a species of Lacerta, with a long round tail, the upper part of the neck and under part of the head acutated, with reverse scales. There is a variety of this called iguana salamandra, with the tail imbricated by large scales, as the former is denominated iguana cordyline. It is found in America.

Agamaska or Viners, in Geography, an island in James's bay, in North America.

Agameda, in Ancient Geography, a place in the isle of Leboe, near Pyrrha. Here was a fountain of the fame name, which had been also that of a woman, who was distinguished by her skill in preparing poisons.

Agamemnon, in Classical Biography, one of the heroes engaged in the Trojan war, was the son according to Homer, and according to Herodotus, the grandson of Atreus, whom he succeeded in the government of Argos and Mycenae. Homer calls him and his brother Menelaus Atticides, the sons of Atreus; but Hefiod and others say, they were the sons of Phthiones, the brother of Atreus. Agamemnon, having engaged the fucceor of Tyndars, king of Sparta, drove Thyctetes, his uncle, from Argos; killed his fon Tanatus, and married Clytemnestra, his wife, by whom he had four daughters, but according to Euripides only two, viz. Iphigenia and Electra, and one son, the famous Orestes. To him was entrusted the command of the confederate army against Troy, which expedition commenced, according to the chronology of Blair, 1193 years before Christ. At Aulis, where the fleet was detained by contrary winds, Calchas, the foothsayer, enjoined the sacrifice of Iphigenia, the daughter of Agamemnon, as a propi-

AGAMEMNON, in Entomology, a species of Papilio, with black wings, spotted with green, and the hinder ones having on the under part a lunate ocellus and red spots. It is found in Asia.

Agamemnon's fountains were situated in Ionia, about 5000 paces from Smyrna.

Agamenticus, in Geography, a high mountain of America, in the district of Maine, distant about six miles from Bald-head and eight from York harbour, which is a noted mark for seamen, particularly in the entry of Pafca
taqua harbour. It is covered with wood and shrubs, and affords pasture to its summit, whence the prospect is enchanting. N. lat. 43° 16'. W. long. 70° 39'.

Agamenticus is also a river in the center of York county and district of Maine. It receives its waters from the ocean through the bay of Pafcartaqua, and has only a scanty supply from streams of fresh water. Its mouth is about four miles south from Cape Neddie river, and admits small vessels.

Agami, in Ornithology, a name given by the French at Cayenne, and applied by Buffon to the Psophia crepitans of Linnaeus, the grus piospha of Pallas, the Phoebinus Antillarum of Brillon, and the gold-breasted trumpeter of Latham; the specific character of which is, that its head and breast are smooth and shining green. This bird is 22 inches long, with a short tail concealed by the upper covert and not projecting beyond the wings, and legs five inches high, covered with small scales, reaching two inches above the knees, which are not feathered. Its head, throat, and superior half of the neck, are covered with a short, close and soft down; the
fore-part of the lower surface of the neck and breast are covered with a beautiful gorgé of brilliant colours, varying between green, gold green, blue and violet: the upper part of its back and adjacent portion of the neck black, and the plumage of the hinder part of the back changes into a tawny-rufous; but the under-side of the body, and also the wings and tail are black, the great feathers which extend on the rump and tail are light ash-coloured; and the legs are greenish. The most characteristic property of these birds is the fragular noise, called trumpeting, which they make, as some have commonly supposed by the anus, but as others have ascertained, by means of their lungs and the capacity of their membranous cells. The wind-pipe, before its entrance into the breast, is about the thickness of a swan's quill, bony and cylindrical. In the breast it is more slender and cartilaginous, and divides into two semicircular canals, formed of membranes, and capable of extension. The air-bag on the right side descends to the pelvis, and within the breast is divided into three or four cells by transverse membranous diaphragms. That on the left side is much narrower, and terminates in the larynx. The common food of these birds is grain; but they also eat small fish, flesh and bread. In their natural state, they inhabit the forests in the warm climates of America, and associate in large flocks on the mountains; and they escape, when surprised in their haunts, by the swiftness of their feet rather than by the use of their wings, as they never rise higher than a few feet. They form a bed for their eggs, of which they lay from 10 to 16, by scraping the earth at the roots of large trees, but construct no nest. In their domestic state, they manifest a wonderful attachment to their benefactors, and are no less fond and faithful than dogs. By their intercourse with men, their instincts are moulded like those of dogs; and it is said that they may be trained to tend a flock of sheep. They are jealous of rivals; fight with dogs, cats and birds of prey, and keep the poultry in great subjection. They follow perfoms through the streets and out of town, and it is difficult to get rid of them. Of all the feathered tribes the agami is the most attached to the society of man, and indeed is the only bird that has a focial turn. In this respect it is as eminently distinguished above other birds, as the dog is above quadrupeds.


Agami is also a species of Ardeae, in the Linnaean systen by Gmelin, found in Cayenne, about 31 inches long, and having long feathers in the tail. These feathers are of a deep blue; the under side of the body is rufous; the neck is of the same colour before, but bluish below, and dark blue above. The head is black, the occult bluish and crested, the temples and the portion above the eyes white.

AGAMIA, in Ancient Geography, a promontory and port of Asia Minor, near Troy. Steph. Byz.

AGAMINA, or AGAMANA, Kabem, a borough of Mesopotamia, situate, according to Ptolemy, on the Euphrates, towards 33° 55′ lat.

AGAMUS, a town of Asia Minor, near Heraclea.

AGAMIUM, a borough of Italy, belonging to the Infubres.

AGAN, in Geography, one of the Ladrone islands. Here Magellan, the famous navigator, was affaileated in 1521.

AGANAGRA, in Ancient Geography, a town of India beyond the Ganges, according to Ptolemy.

AGANGINAE, a people of Ethiopia.

AGANIPPE, a fountain of Helicon, faced to the Maus, whence they derived the appellation of Aganippides. Ovid (Fast. l. v. v. 7.) makes Hippocrene and Aganippe the same; but Solinus, and others, distinguish them and ascribe their being united to poetic licence. The water of this fountain was, to those who drank it, the source of the mus poeticus.

AGANLY river, a branch of Kuban river, which falls into the sea of Afox from the south.

AGANZAVA, a town of Asia, in the interior part of Media, situate, according to Ptolemy, in long. 89° and lat. 30° 30′.

AGAPE, or AGAPIE, formed of the Greek ἀγάπη, love, in Church History, a kind of religious festival, celebrated in the ancient church, to keep up a harmony and concord among its members. To these agape, we have a reference by St. Jude, v. 12, and also by St. Peter (2d Epistle c. ii. v. 13.) if with the Alexandrian copy, vulgar Latin and Arabic versions, we read ἀγάπας; for ἀγάπας. Tertullian is the first author who has particularly described these feasts. Apolog. c. xxxix. Oper. p. 35. Ed. Rigalt. Having taken notice of some luxurious feasters among the Heathens, he adds, 'the nature of our supper is indicated by its name; it is called by a word, which, in the Greek language, signifies love. We are not anxious about the expense of the entertainment; since we regard that as gain which is expended with a pious purpose, in the relief and refreshment of all among us that are indigent.—The occasion of our entertainment being so honourable, you may judge of the manner of its being conducted; it consists in the discharge of religious duties; it admits nothing vile, nothing immodest. Before we fit down, prayer is made to God. The hungry eat as much as they desire, and every one drinks as much as can be useful to sober men. We do feast, as men, who have their minds impressed with the idea of spending the night in the worship of God; we do converse, as men, who are conscious of the Lord heareth them.'—Prayer also concludes the feast; and every one departs to his own concerns, &c.
It is a Christian Chrysostom, notwithstanding valves ecclesiastical in one of these cases or with the African council in the beginning of the fifth century, that they should not be held in churches, except in cases of peculiar necessity; with which the decree of the council of Auxerre, in the beginning of the seventh century agrees. Photius, about the middle of the ninth century, and Arsenius, in the middle of the thirteenth century, represent the matter accordingly; or that the agape was prohibited in churches, but allowed and encouraged in private houses. When they were totally abolished, we have no account. When they were occasionally charged with impurity by the Heathens, they were restrained and regulated.

The kids of charity, with which the ceremony used to end, was no longer given between different sexes; and it was expressly forbidden to have any beds, or couches for the convenience of those who should be disposed to eat more at their ease. Notwithstanding these precautions, it was found necessary to discontinue them; for as they were introduced when Christians had all things common, or with the community of goods, which under wise restrictions their first circumstances required, they remained long after the diffuse of the custom, which was the original occasion of them.

See Abyssinia.

Some authors imagine the agape to have been, not a commemoration of our Saviour, but a custom borrowed from the Heathens: Mor vero illa, ut referant, saepe Sedulius, on the sixth chapter of the Epistle to the Corinthians, de Gentili adulesce superfiliis erudite. And Paulina, the Manichee, is represented, by St. Augustine, as reproaching the Christians with converting the Heathen sacrifices into agape: to which he replies, we do not borrow our love-feasts from the sacrifices of the Gentiles; our love-feasts feed the poor. Cont. Faust. Manich. l. xx. c. 20. Some have thought that St. Paul speaks of the agape, when he reproves the Corinthians for their disorderly practice. 1 Cor. xii. 17, &c. These agape, as Chrysostom, Theophylact, Pelagius, Occumenius, &c. imagined, immediately succeeded the eucharist; and at these feasts the disorders happened. Mr. Hallet (ubi supra) contends, that they occurred in celebrating the eucharist itself. It may be observed, that the Christians did not consider the agape as religious or divine institutions, like the Lord's supper. If they had, their councils would not have banished them out of the churches than the eucharist itself.

**AGAPANTHUS.** (quaś ἀγαπάντος, pl. plesantium) flower in Botany, a genus of the *bexandria monogynia* clads and order, of the natural order of *Lilianeae*, the *Spaches* of *Linnaeus,* and the *Norcliffs* of Jussieu. Its characters are, that the calyx is a spathic common gaping at the side; the corolla is one-petalled, funneled-shaped and regular; tube cornered, as if composed of five claws, the border fix-parted, with the parts oblong and spreading; the stamens are fix filaments inferted into the throat, shorter than the corolla, decline; the anthers kidney-shaped and incumbent; the pistillum is a superior germ, oblong, three-cornered; the style filiform, of the length of the stamens and decline; the stigma simple or trifid; the pericarpium is an oblong capsule, three-fid, three-celled, three-valved: valves navicular, with contrary dissection; the seeds numerous, oblong, compressed and enlarged with a membrane. There is one species, viz. *agapanthus umbellatus*, the *ornum Africanum* of *Linnaeus*, or African blue lily. This is the African tuberose hyacinth, with a blue umbellated flower.

The root of this plant is composed of thick fibrous fibers; from the same head arises a cluster of leaves, which are thick and succulent, and of a dark green colour. Between these issues the flower flanks, supporting an umbel of blue flowers in a lance, and each flower standing on a pedicle, about an inch long. The umbel being large, the flowers numerous, and of a light blue colour, make a fine appearance. They come out at the end of August or beginning of September, and frequently continue in beauty till spring. The flowers are those of the *hymenocallis*, but this genus is distinct from it in its pathos. It is a native of the Cape of Good Hopes, from whence it was brought to Holland, and in 1692 it was cultivated at Hampton Court.

This plant is propagated by offsets, taken off at the latter end of June, planted in separate pots, with light kitchen-garden earth, and placed in a shady situation. In five weeks the offsets will put off new roots; and the pots should then be removed to a more sunny situation, and have more water. In September they will put out their flower flanks, and toward the end of the month the flowers will begin to open, and should be removed under shelter in bad weather, but in good weather exposed to the free air. Toward the end of October they should be removed to the green-house and have the benefit of free air, and be occasionally watered during winter in mild weather, but if frost they should be kept dry. It requires only protection from frost and moisture; and should not therefore have any artificial warmth in winter, and in summer it should be placed in the open air. Martin's Miller's Dict.

**AGAPE,** in Antiquity, signifies an afternoon, or evening's meal.

**AGAPETÆ,** in Ecclesiastical History, a name given to certain virgins and widows, who, in the ancient church, associated themselves with, and attended on ecclesiastics, out of a motive of piety and charity.

In the primitive days there were women instituted deaconesses; who, devoting themselves to the service of the church, took up their abode with the ministers, and assisted them in their functions.

In the fervour of the primitive piety, there was nothing scandalous in these societies; but they afterwards degenerated into libertinism: infomuch, that St. Jerom asks, with indignation, unde agaparatam puellam in ecclesiis introiret? This gave occasion to councils to suppress them.—St. Athanasius mentions a priest, named Leonius, who, to remove all occasion of suspicion, offered to mutilate himself to preserve his beloved companion.

**AGAPETUS,** in Biography, a deacon of the church of Constantinople in the 6th century, who addressed a letter, called *oμολογία φιλογενίας* (omologia philogenia), *Scheda Regia,* to the emperor Julian, on the duties of a prince, and thus obtained rank among the most judicious writers of the century. This letter was printed at Basal by Frobenius in 1521, 5vo., and at Coligny in 1604. It is included in the Bibliotheca patrum. Molheim, Eccl. Hist. v. i. p. 120. Fabric. Bibl. Græc. t. vi. p. 570.

**AGAPETUS,** Pope, was a native Roman, and raised to the papal see by the interell of Theodotus, king of Italy, in 555. This pope refuted the interference of the emperor Julian, in ecclesiastical concerns, affirmed the supremacy of the papal authority in the church, and maintained its independence on the civil power. He was firm and resolute, notwithstanding the threats of the emperor in opposing a measure which he disapproved, and boldly said, "when I came to Julian, I hoped to meet a Christian prince, but I have found a Dioscorian." He died at Constantinople in 536,
AGA

and was enrolled among the saints; and the Roman see was at this time so poor, that in order to defray the expenses of his journey thither, he was obliged to pawn the sacred relics of the church of St. Peter, Bever and Dupin.

AGAPETUS II. Pope, a Roman by birth, obtained the papacy in 946, and held it till the year 956. He exerted himself in terminating the difficulties of Italy, and sent for the emperor Otto to oppose Berenger II. who assumed the regal power in this country. He was a patron of extraordinary facility. Dupin. Fabric. Bibl. Greec. t. vi. p. 570.

AGAPHONOVA, in Geography, a river of Siberia, which runs into the Frozen Ocean.

AGAPIS lapidis, in Natural History, a name given by ancient writers, to a stone of a dusky yellow, or the colour of a lion's skin; it was held in great esteem in many nations, on account of its suppos'd virtues, as an anodyne and vulnerary.

AGAPIUS, in Biography, a Manichean writer, mentioned by Photius, who is supposed to have lived about the middle of the 4th century. Some say, that he was a disciple of Manes towards the close of the third century, that he opposed the sentiments of Eunomius concerning the Trinity, and that he wrote three books in defence of the Manichean principles; one a work of twenty-three books, another consisting of 102 chapters, inscribed to a woman of the name of the same sect, named Uramis; and a third, intitled Heptalogus, preferred in the Anathemas against the Manichcees, or form of abjuring Manichaeism, by Fabricius, Cotelerius and Tollius. His work, says Photius, was so absurd and impious, that it could only shame and confound those who followed him, and the Manichean doctrines; and he is denominated by the same writer, a detestable and impious man, and distinguished as one of the twelve disciples of Manes. Gen. Dict. Lardner's works. vol. iii. p. 566. Fabricius (Bibl. Greec. t. x. p. 383) has mentioned several other persons of this name; such as a monk of mount Athos, who lived about the year 1640, and published a book entitled μεταφωνικας συναιτιας, the salvation of sinners; Agapius, a bishop of Cefarea, the predecessor of Eusebius; Agapius, an Athenian philosopher, a disciple of Proclus, and supposed to be the same with the eminent physician and rhetorician of Alexandria and Constantinople, whose distinguished talents are noticed by Suidas.

AGAR, in Ancient Geography, a town of Byzacium, described by Hirtius, a few miles southwest of Lephta or Leptis parva, and sixteen miles from Thaphus. It was one of Cesar's stations; the village which now occupies the rocky situation in which it stood is called by the Arabs Bayt-Hadjar, i.e. the father of a stone, or the honey city. Shaw's Trav. p. 199.

AGARA, a town of the Phylliates, in India, on this side of the Ganges, according to Ptolemy.

AGARAFFO, or ACHARFFE, a small, pleasant and fertile country of Andalucia, in Spain. Its principal town is San-Lucar-la-Major, erected into a duky by Philip IV. in favour of Count d'Olivarez.

AGARD, Arthur, in Biography, a learned antiquary of this country, was born at Tolton, in Derbyshire, A. D. 1540; and having been educated for the law, was appointed deputy-chamberlain of the Exchequer in 1570, which office he held 45 years. By means of this office he was enabled to pursue those curious researches, of which he produced several valuable publications.

Having directed his particular attention to the Dooms-day book, he wrote a learned treatise on the use and true meaning of the obscure words that occur in it; he also compiled a book, containing "a catalogue of the records preserved in his Majesty's four treasuries," and "an account of all leagues, treaties of peace, intercourses and marriages with foreign nations." This work, with eleven other treatises in MS. relating to matters of the Exchequer, he ordered by his will to be delivered to the office. His other collections, amounting to twenty volumes, were bequeathed to Sir Robert Cotton, and deposited in his library. His essays read to the Antiquarian Society were published by Mr. Hearne, in his "collection of curious discourses by eminent antiquaries," and are as follows, viz. "An account of the Antiquity, &c. of Parliament," the genuine facts of which is doubted; "The Antiquity of English Skins." -"On the Dimensions of the Land of England." "Of the Authority, &c. of Heralds in England." -"Of the Antiquity and Privileges of the Inns of Court and Chancery." -"Of the Diversity of Names of this Island." By his established reputation for the knowledge of antiquities he was one of the most conspicuous members of a Society of Antiquaries, which published from 1572 to 1624. He died in 1617, and was buried in the cloister of Westminster Abbey. Mr. Camden commemorates him a most excellent antiquary. Biog. Brit.

AGARENI, or AGARFIENS, a name given by some to the followers of the religion of Mahomet.

The word is derived from Agar, or Hagir, handmaid of Abraham, and mother of Ishmael; and properly denotes the Arabs, called also Ishmaelites, and more lately Saracens.

AGARENUM, the capital of the Agarines, in Arabia; it was attacked by Trajan, but without success.

AGARIC, AGARICUS, called AMANITES by Dillenius, in Botany, a genus of the order of fungi, and class of cryptogonia; the characters of which are, that the pileus or cap has gills underneath; that the gills differ in substance from the rest of the plant, being composed of two laminae; and that the seeds are in the gills. Gmelin. in the 13th edition of the Linnean sytem, 1791, enumerates 590 different species; and Dr. Withering, in the third edition of his arrangement of British plants, 1756, (vol. iv. p. 154, &c.) affirms and describes 282 British species, besides several varieties. He distributes them into three general classes, comprehending those which have central stipes, those with lateral stipes, and those which have no stipes; and he again subdivides the two former classes into such as have solid, and such as have hollow stipes, of decadent, fixed and loose gills respectively. Under these heads he arranges the species, by the colour of the gills, into those whose gills are white, brown, red, buff, yellow, grey, green, and purple. As this ingenious author has formed a system, that serves to facilitate the investigation and description of the several species of agarics, we shall here give a brief sketch of the principles upon which it is founded. Agaries are composed of a cap or pileus, with gills underneath, and are either with or without stipes. The stipes are either central or lateral. They have also a root, which is more or less apparent, and some of them, in their unfolded state, wholly enfolded in a membranaceous or leather-like case, called a _wrapping_. Some of them have also a _curtain_, or thin membrane, extending from the pileus to the edge of the pileus, which is rent as the pileus expands, and soon vanishes; but the part attached to the pileus often remains, and forms round it a _ring_, which is more or less permanent, as its sub stance is more or less tender. These parts are seen in Plate V. Botany, fig. 2, which exhibits the vertical section of an agaric in its egg-state. The wrapper is seen at m, m, m, the gill at n, n, the gill at o, o; p is the stem before it shoots up; and q, q, the curtain. On the stipe of a fungus at B, there are seen the remains of a curtain,
curtain, then called a ring. The curtain, ring and wrapper are of little use in the discrimination of the species. The two former are common to all the secondary subdivisions of agarics with central stems; but the latter is confined to plants with solid stems, nor does it pertain to those whose gills are decurrent. The stem of an agaric is either solid or hollow; the former is represented at A; the latter at B. In examining an agaric, it will immediately appear whether the stem be solid or hollow, by cutting it across about the middle with a sharp knife. Next to the gills, the stem of an agaric is the part least liable to variation. The gills are the flat, thin frutifications, found underneath the pileus, and attached to it, and are of a different texture from that of the stem or pileus. They assume different colours in different species, and vary much in their respective lengths. Each gill consists of two membranes, between which the seeds are formed. The gills are always attached to the stem, and sometimes to that only, as at fig. E. c. e. They often shoulder up against the stem, and are fixed to it, as at fig. A. b.; and they are also extended along it downwards, as at a. This is called a decurrent gill. The fixed and decurrent gills are attached to the stem only by their ends, which are next to the center of the pileus, and not by their edges, as is sometimes the case in agarics, whose pilei are nearly cylindrical. The gills, as they contain the fructification of these plants, are peculiarly important. They vary in length, always extending to the edge of the pileus, but seldom reaching to the stem; and they are sometimes forked or divided, and sometimes connected and anastomosing with one another. These circumstances are illustrated by fig. C and fig. G. The gills are uniform at d; and below it they are connected at the edge of the pileus; at e they appear in pairs, at f there are four, and at g eight in a set; at h they are feen irregular, or without any determinate number; at i they are branching, and at k branching and anastomosing. Fig. C exhibits the gills loose from the stem, with the inner end fixed to a collar which surrounds the top of the stem, though not in contact with it. Thesec several circumstances are subject to such variation, that they do not serve to distinguish the different species. The colour of the gills, however, is obvious and permanent; and as the colour is principally, if not solely, caused by that of the seeds within them, this affords the most fixed and certain characteristic, on which to found the distinctions of the species; and together with the structure, the colour, particularly of the flat sides of the gills, will be at all times sufficient to furnish permanent specific distinctions. The stem is a less variable part than the pileus; its shape, the proportions of its length to its breadth, and of both to the pileus, afford tolerable distinctive marks; and its colours, though more changeable than those of the gills, are perhaps rather more fixed than those of the pileus. The pileus, or cap, is the part of an agaric, that is least certain. Its shape is either conical (as at E), convex (as at D), flat, or hollowed at the top like a funnel, and is constantly varying in the same plant, though it is much the same in the same species, when the plant is in perfection, or when it is fully or almost fully expanded. Its colour is uncertain; and so is also the vividness or clamminess on the surface of the pileus and stem, which has sometimes characterised agarics. The deliCence of some agarics, or their property of yielding a milky juice, which in some species is mild, and in others acrid, is very precarious and inconstant. Such as we have briefly recited, are the principles upon which Dr. Withering's system is founded; and it seems well adapted for extending our acquaintance with the various species of agarics that occur, and rendering the knowledge already acquired more accurate. Withering's Arrangement, vol. i. p. 375—380. See Cryptogama, Fungi, and Mushroom.

Of all the species of agaric, one only has been selected for cultivation in our gardens, viz. the A. campylophilus, or common mushroom, or champignon. The gills of this species are loose, punky red, changing to a liver-colour, in contact with the stem, but not united to it; very thick; irregularly disposed; some forked near the stem, some next the edge of the pileus, some at both ends, and in that case generally excluding the intermediate smaller gills. The pileus is white, changing to brown when old, and becoming scurfy; regularly convex, fleshy, flat, with age, from two to four inches, and sometimes nine inches in diameter, and liquefying in decay; the flesh white. The stem is solid, white, cylindrical, from two to three inches high, half an inch in diameter; the curian white and delicate. When this mushroom first makes its appearance, it is smooth and almost globular; and in this state it is called a button. This species is esteemed the best and most favouré of the genus, and is much in request for the table in England. It is eaten fresh, either stewed or boiled, and preferred either as a pickle or in powder; and it furnishes the sauce called ketchup. The field plants are better for eating than those raised on artificial beds, their flesh being more tender; and those who are accustomed to them can distinguish them by their smell. But the cultivated ones are more stylishly, may be more callly collected in the proper state for eating, and are firmer and better for pickling. The wild mushrooms are found in parks and other pastures, where the turf has not been ploughed up for many years; and the best time for gathering them is August and September. Dr. Withering mentions four varieties. The A. Georgii of Linnaeus resembles the former, but is much inferior to it in flavour. Its gills are yellowish white; the pileus yellow, convex, hollow in the center; the stem yellow thickish and smooth; the juice yellow, which flows plentifully from it when wounded. It is gathered in September in woods and pastures. A variety of this is found on the sea coast of Cornwall, of a large size, with the button as big as a potato; the expanded pileus 18 inches over, the stem as thick as a man's wrist, the gills very pale, the curian tough, and thick as leather, and the juice yellow. A plant of this kind, as Dr. Withering informs us, was gathered on an old hot-bed in a garden in Birmingham, which weighed 14 pounds. The A. procirus, or tall mushroom, is not uncommon on hedge banks and dry pastures, and is sometimes exposed to sale in Covent-garden market. It may be distinguished from the genuine fruit by the fponginos of its fleshy, and from others by its fine and large horizontal ring. The gills are white, uniform, and fixed to a collar; the pileus is a broad cone, bofied, white brown, and fecal; the stem is featy, and the ring foffe. This plant, when preferred in pickle, is very apt to run into the vinous fermentation. Dr. Withering enumerates four varieties of this species, one of which is the A. escoratus of Schaeffer and Hay, which is a beautiful plant, approaching in structure to the former, but of a smaller size. It is gathered in September. A. xarmpilina is the most splendid of all the agarics. Its gills are fixed, bright golden yellow, and nearly orange under the edge of the pileus, regularly disposed four in a set; fleshy, brittle, and ferrated at the edge with a pale cottony matter; the pileus is a fine lake red, changing with age to a rich orange and buff, and every intermediate shade of
of these colours, which render it very beautiful; convex, center bobbled, edge turned down, three to four inches diameter, clothly to the touch; flesh pale buff; stem solid, nearly cylindrical, but gradually tapering upwards, rich buff, flared with fine rose red, three to five inches high, half inch in diameter; flesh pale, buffy, spongy and elastic. This is common in Italy, and brought to the markets for sale. The ancient Romans esteemed it one of the greatest luxuries for the table. It was made the vehicle for poison to Claudius Cesar by his wife Agrippina, and has therefore been celebrated by Juvenal and Martial. Scheffer and Clausius have received several curious circumstances respecting it. Dr. Withering apprehends these authors have mistaken the species, and that their account should be transferred to the A. delicatus. The A. ericetinus is estabul, but its taste is not at all agreeable. It is the A. reformis of Scheffer, and first found by Dr. Withering's daughter, on the red rock plantations at Edgbaston, July 6th 1791: and afterwards in Sept. 1793; and in July 1792, amongst moss in the fir plantations at Tettenhall, Staffordshire. Dr. W. enumerates five varieties.

A. delicatus has gills decurrent, flame-coloured, narrow, regularly branched; pileus rich red brown; flesh nearly flat, but somewhat hollowed at the centre and the edge turned in, from one a half to three inches over; orange-colour; stem orange, solid, tapering downwards, from one to two inches high, and a quarter to three-eights inch diameter: hollow with age. The juice is rich yellow, which soon turns green. It is found in the fir plantations of Scotland, and in those of the barren hills at Bar, in Staffordshire. Dr. Smith also found it at Hillingdon, Middlesex, under some fir-trees, and it also grows near Guildford. It is much esteemed in Italy, and exposed in the markets, and supposed to have been the A. ericetinus mentioned by the authors cited under the preceding article. Dr. Withering enumerates three varieties, one of which affords, from every part of it when wounded, a copious discharge of yellow acid juice. They are gathered in woods and dry pastures in Sept. and Oct.

A. cinnamomeus has gills, four in a set, broad about the middle, deep tawny red, and fixed by claws; pileus convex but bobbled, of a rich cinnamon colour, from one and a half to three and a half inches diameter; the skin hollow, cylindrical, silky, shining, two inches high, thick as a goose quill, of a fine full yellow colour. This is a species that is readily distinguished by its cinnamon-colour. It is found in woods in September and October; and has a good flavour. It is the A. cinnamomeus of Bolton. The A. ephedriformis of Scheffer is a variety of this.

A. bulbiferus has white, loose, irregular gills; pileus convex, white, smooth, sometimes fringed at the edge, four or five inches over; flesh white, spongy and very thick; stem solid, cylindrical, smooth, white, four inches high, and half inch or more in diameter; ring permanent. broad, and white. This species possesses all the parts belonging to the genus, and is well adapted to instruct the learner in understanding them. It is found from spring to the end of autumn in rich soil, and also in gardens, on the sides and at the base of hot-heds. Dr. Withering enumerates four varieties, found in woods about the roots of trees, and in pastures: and he refers the A. bulbiferus of the Fl. angil. to the A. glaucopus of Scheffer, with brown gills, from four to eight in a set,5 chief and semi-globular pileus, thick stem of a white or pinky colour, and curtail resembling a cowl, web, with a pinky tinga, solid whitish stem, and very large bulbous root. The A. bulbiferus of Hudson and Ray is referred by this author to A. volviferus of Linnaeus; which has fixed purple gills, numerous, eight in a set; long gills sometimes cloven, and a few of them decurrent; purple pileus, soft, smooth, firm, convex, but centrally depressed with age, and cracking at the edge, which is somewhat turned down, from half inch to five inches over: stem solid, cylindrical, purple, bulbous at the base, from one to four inches high, and from a quarter to one inch in diameter; and curtail like a cowl. In maturity, it plentifully emits a powder of the colour of Spanish shift. It is not uncommon from October to December, in Edgbaston and Barr plantations, in the woods near Bath, and at Powick near Worcester. With much broiling and duly seasoned, it is esteemed delicious as an oyster. A. candidus of Linnaeus is small and white, with an hemispherical pileus having its margin turned inwards and flexible gills, and stem cylindrical and flexuous. Dr. Withering refers the A. candidus of Hudson to the Merse is umbelliferus. A. nitens has gills decurrent, white, few, short and in pairs; pileus white; both yellowish, at first conical, then flat, and later inverted, two inches in diameter; stem solid, whitish buff, bending, three inches high, and a quarter of an inch in diameter. The whole plant is very viscid, but dries when gathered. Dr. W. supposes it to be an unusually large plant of the A. cinnamomeus. It is found in September, on decaying and rotten wood. The A. mutabilis of Hudson, Ray, &c. is referred by Dr. W. to A. ephedriformis of Curtis, with pale yellow gills, eight in a set; pileus brown orange, nearly flat; stem yellow above, velvety and dark brown below. It is not uncommon in April and October, grows in clusters, and is generally attached to rotten wood. A. creffipes has gills white, brownish at the edges, fleshy, distant, four in a set; pileus red-brown, bulbous and cracking; stem tapering downwards and ribbed. It grows in clusters, at the base of decaying trees. The A. creffipes of Scheffer is made by Dr. W. a variety of the A. ephedriformis with white gills, four in a set; pileus chefmut and semi-globular; stem buffy, white and tapering. This agaric is tough and strong, with a considerable elaticity, and found under oak trees in August, September and October. A. varis has white gills, not numerous, two or four in a set; pileus conical and scoured; stem cylindrical, glossy, thick, and about the size of a cowgill. Of this species Dr. W. has enumerated eight varieties, most of which are found at the roots of fiddle trees. The A. varis of Scheffer is in Dr. W.'s arrangement a variety of the A. glaucopus, and that of Bolton a variety of the A. fim-punctis of Bulliard, which has gills dark brown to black, four or eight in a set; pileus pale brown, conical, blut, with polished apex, and white stem. It is found in October, in gardens. A variety of it, with four gills in a set, and a pileus grey to black, is found among rotten leaves in grass-land. Another variety, which is the A. varis of Bolton, is found on grass-plats and new mown fields in July. It has chocolate gills from brown to black, mottled, and in pairs; pileus moule-colour, conical and pointed; stem of the same colour, cylindrical and firm. This, though a common, is a very beautiful species. In a summer morning it is covered with a bloom like that of a plum, having often a glittering spangled appearance; its form is regular, and the fringes of the curtain peculiarly delicate. Another variety, with the stem of a dark mulberry colour, is found in wet gravel where no grass grows, and sometimes on cow-dung, in which case the stem, under the shelter of long grass, is covered with a white hoarfeast, which is easily rubbed off.

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A. integer of Linnæus has gills white, mostly uniform; pileus of various tints, crimson, pink, blue, or tawny brown, changing to dirty yellow or to lead colour; stem solid, cylindrical and white. It is very common and beautiful; found in woods and pastures, under trees, and fields are very fond of it. Dr. Witherings enumerates nine varieties. A. orcadus has loose gills, with the part attached to the pileus jutting up very close to the stem, so as to give them almost the appearance of being fixed, watery brownish white, two or four in a set, the smallest ones very minute, and the large ones sometimes splitting at the outer end; not numerous, rather broad for the size of the plant; frequently connected to the pileus by ligaments; pileus pale buffy brown, convex, irregular, with a sudden depression of the border at some distance from the center, often giving the appearance of a large rounded bole in the middle; stem colour generally deeper; from one to one and three quarters inch over; and the edge turning up with age; stem fleshy, white, changing to watery brown, cylindrical, but thicker and flattened just under the pileus, very tough, wiry crooked, twisted when dry, rarely central, one and half inch high and thick as a crow-quill. This is the 21st fungus of Ray's Synopsis, ed. 3. p. 677. p. post anne of Hudson, and corylas of Lighthart. There are two varieties; one with cream-coloured gills, buff pileus, and nearly stem, and another with yellow brown, more flat, and more regularly convex pileus, found in groves. Mr. Woodward says, that this species has a much higher flavour than the common mushroom, but he suggests, that from its leathery nature it is indigestible, except in the form of powder, in which it is admirable. Dr. Withering, however, observes, that he has seen the pileus and gills of this agaric very brittle and tender, when fully saturated with moisture in rainy seasons, and in that state it is sufficiently digestible. Professor Martyr informs us, that he has eaten these mushrooms for 40 years without injury, and without perceiving that toughtness like leather, of which others have complained, except in very dry weather, or when they are in too advanced a state. They should be gathered young and early in a morning, and properly dressed. They are found in hedge banks, upland pastures, and steep commons, particularly in those patches called Fairy rings. Those that are found in woods and hedges are of inferior flavour to such as are gathered in dry pastures, which have a very pleasant smell and luxuriant flavour, either when stewed alone, or in ragouts, &c. This fruit makes excellent ketchup, and is much valued in the form of powder. It is in season during September and October, but may be dried so as to be in use for table all the winter. Mr. Lightfoot supposes that this species is the mousseron of the French, who use it in ragouts, instead of that, and acknowledge it to be equal in flavour, but more tough. The mousseron, however, has a very thick and fleshy pileus, its gills are very narrow and numerous, and fixed to the stem, and the stem is thick and short. Dr. Withering has carefully distinguished several other species from this fairy-ring agaric, or Scotch bonnets, as it is called by Mr. Ray. A. chautarellus of Linnæus, is the Merulus cantharellus of Dr. Withering, and may be eaten with safety; but it is more tough and less highly flavoured than either the A. orcadus or A. campylinus. Airborne enumerates the following species as edible, viz. A. candidus—bulbosus—corylas—nient—deliciosus—metzelsius—brunen—escrenios—georgii—erchiae—coriaceus—vulcanus. But he has omitted A. campylinus. In many parts of Europe other fruits are eaten, which are thought with us to be poisonous. Of this number we may reckon the A. piperatus, which, though it be the most acid and pungent of all the agarics, is eaten in great quantity by the Russians. They kill large vessels with these mushrooms in the autumn, cut them into pieces, and eat them in the ensuing Lent. The A. piperatus of Linnæus has gills, pale pinkly red, numerous, in pairs; pileus dirty yellow white, woody, depressed in the centre; and stem pale yellow. This is the A. turundus of Schaeffer. The A. piperatus of Bolten, and A. laetarius of Bulliard is referred by Dr. W. to the A. nigricans which has gills whitish, numerous and narrow; pileus smooth, irregular, flatish, depressed in the centre; stem white, excipulaceous, and juice like milk. Esler first found it in England. This plant, with its varieties, is met with in plantations of wood. It is much eaten by insects and birds. A. piperatus is described by Dr. W. as having gills fixed lightly to the stem, greyish white brown, four or eight in a set; pileus brown, convex, biform, bordered, scored, very viscid, so that flies lighting upon it cannot escape; paler in colour when divested of this viscid matter, one to one inch and half over; stem hollow, white, viscid, tender, easily broken, splitting, three or four inches high, and thick as a crown quill. This species is found in woodland pastures in September. Dr. Percival, in the last vol. of his Effects, p. 267., relates the case of a man, who was poisoned by eating a mushroom, of which Mr. HUDSON thinks was one of this species. A. mycenarius, or red-flowerd mushroom, has a large pileus, varying much in colour, white, red or crimson, convex, spotted with downy warts, which are raised, compact and angular, or thin, flat, and ragged, turning up with age, from two to seven inches over; flesh white, reddish in decay; gills fixed, white, yellowish with age, mostly uniform, but a shorter one sometimes intervening; the shorter gills varying much in length, but rarely less than one third the length of the long ones; the stem solid and cylindrical, but the internal substance shrivelling with age, leaves irregular hollows; seamy, bollows at the base, from three to five inches high, and from three quarters to one and a half inch in diameter; ring, broad, permanent, and turned down upon the stem. This plant rises out of the ground included within its brown fluted wrapper. It is found in pastures. The juice rubbed on the walls and bed-rolls destroys bugs; and in the north of Europe the inhabitants infuse it in milk, and let it in their windows, in order to poison the flies who take it. This is the moucho-more of the Russians, Kamtschadales, and Koriars, who use it for intoxication. They sometimes eat it dry, and sometimes immerse it in a liquor made with the epilobium; and when they drink this liquor, they are seized with convulsions in all their limbs, followed with that kind of raving which attends a burning fever. They perfumise this mushroom; and if they are urged by its effects to suicide, or any dreadful crime, they pretend to obey its commands. To fit themselves for premeditated affimation, they recur to the use of the moucho-more. A powder of the root, or of that part of the stem which is covered by the earth, is recommended in epileptic cafes, and externally applied for dissipating hard globular felings, and for healing ulcers. The dose is from half a scruple to one, taken thrice a day in water; and a dram administered once a day in vinegar, has been thought more efficacious. Murray, App. Med. vol. v. p. 560. Dr. Withering enumerates ten varieties of this species. The agarics, with lateral items, and those without items, are chiefly found on rotted wood, or stumps and fragments of decayed trees. Of the latter sort we shall mention only the A. quercicus, or agaric of the oak: the gills are brown, very much branched and anatomizing, thick, forming oblong angular, and nearly circular cavities, especially towards the edges; the pileus brown, woody, nearly fimbriate,
AGARACE, in Pharmacy, a kind of fungous excrement, growing on the trunks and large branches of several trees; but, chiefly on the larch-trees and upon some kinds of oak, when old and decayed. Three-fourths of it consist of a gelatinous substance, and the remainder is a flaky mucilaginous earthy matter, so tenacious, as scarcely, by any method, to be dissolved by water. It comes forth on the tree in the beginning of the spring, and continues to increase till autumn. The bell is easily cut with a knife, frayed between the fingers, and has no hard, or gritty, or coloured veins. It has no pedicle, and is internally of a simple uniform structure throughout its whole substance. Agaric is brought from different places; the bell comes from the Levant; that which comes from Savoy and Dauphiny being least esteemed. Holland also supplies some, but that is reckoned the worst; because it is grated, and whitened at top with chalk. By a chemical solution it passes almost wholly into oil; it yields no volatile salt, but abounds with a sort of flaky earth, and acid phlegm; as to texture, it seems much to resemble colocynthia. Agaric is an ingredient in the therica Andromed, where it is admitted in quality of a cordial; though its medicinal virtue is excepted to as much as its purgative. Agaric was a purge in much esteem among the ancients, but has deferredly fallen into disrepute of later years, as it occasions unprofitable nauseas; and as no preparations of it appear to be equal to the more common and experienced cathartics. The druggists consider only that which grows upon the larch-tree to be the right kind. For its chemical history, see Neumann's Works, p. 349. The Agaric of the oak, so denominated, because the bell is supposed to be produced on the oak, sometimes also called faile or faifor Agaric, is the Boletus Ignarius of Linnaeus. This fungus has been specifically named Ignarius, and also touchwood or spunk, from its readily catching fire, and from its being used in some places as tinder. For this purpose the Germans boil it in strong tea, dry it, and boil it again in a solution of salt-petre. It is externally of an aul-colour, and internally dusty-coloured, soft and tough. In Franceon pieces of the inner substance are beaten so as to resemble leather, and wove together for making garments: this agaric has been much used by surgeons as an external affptic. The mode of preparing this substance is as follows: Take a piece of fresh agaric, which has been removed from the oak or larch-tree in autumn, and pare off its external rind; the coat underneath, being of a compact texture, is then to be separated from the porous part, and well beaten with a hammer until it becomes extremely pliable. The outer hard part, and the inner loose surface, are of very little use; but the middle portion, thus prepared, must be kept dry in pieces of a convenient size. A small piece is to be laid exactly over the bleeding artery, and over that a second, or even a third, somewhat larger; and lastly a compress, to retain the whole in its place. Its application to this purpose was derived from the French, and it was successively recommended, first by Broffer in 1750, afterwards by Morand, Bouquet, Faget, Rochard, and De Mey, who employed it not only to restrain the bleeding of wounds, but to prevent hemorrages after amputations, which it is reported to have done as effectually as the ligature. Several English surgeons have also published

cases in which the agaric was successfully used, as Sharp, Warner, Goode and others. Some have remarked that, where it seemed to succeed, the subjects were brought to low before the operation, that little danger was to be apprehended from the haemorrhage, though no other application had been made than that of dry lint and flour. Neale's Observations on the use of agaric, &c. It has now lost its reputation both in France and England; nor does it appear, from its febile qualities, to be puffed of any truly affptic power, at least to any considerable degree. This fungus probably acts no otherwise than as a pliable soft substance, adhering to the orifices of the vessels, till they have contracted spontaneously. Some other fungi have been employed with the same intention; such as the lycoperdon, or dully mushroom, and the fungus vinifus, found on the walls and vaults of wine-vaults. Lewis's Med. and Woodville Med. Bot. vol. iv. p. 160. Since it pusses no efficacy without a firm compré, we believe the ligature will generally be preferred, as more secure, and less troublesome to the patient. See HEMORRHAGE.

AGARIC, Female. See Boletus.

AGARIC MINERAL, Bergunic, Bergottch Germ. Greta furcians.—This mineral substance is always found in a loose or semi-solid state in the fissures of rocks or at the bottom of lakes; it almost floats on water, is entirely soluble in nitric acid with effervescence, and probably contains wholly of carbon of lime: it is not applied to any particular use. There are two varieties of this species, of which the following are the essential characters.

Var. I. Bergunic of Werner.

Dully—colour whitish red or yellow; very friable; of a dry feel, does not adhere to the tongue, and gives no gloss to the skin when rubbed on it.

Var. II. Colour white, composed of feidy particles, very friable; of a greasy feel, and communicates a gloss to the skin; fails to pieces in water, and adheres to the tongue.

Mr. Kirwan (Elem. Miner, vol. i. p. 76) mentions a third variety, of a silvery white colour, resembling mica in its structure, of a soft feel and somewhat unctuous like tale, almost entirely soluble in nitric acid; and the solution has all the properties of a solution of calcareous earth. This substance was formerly used internally against hemorrhages, strangury, gravel, and especially in diabeties; and externally to dry and heal old ulcers, stop effusions of the eyes, &c. See Silvery Chalk.

AGARICITES, in Natural History, a species of Madrepora, from the andes, and furrows, with carinated furrows and coronated stars. It is found in the sea, between the islands of America.

AGARICUM, a species of Alcyonium, with a filiform stem, and a kidney-shaped cap. This is the kidney-shaped purple Sea-Pen of Ellis, found in the sea that washes the coast of South Carolina. Its body is about an inch long, and half an inch across the narrowest part, with a small roundish tail, an inch in length, proceeding from the middle of the body, full of rings from end to end, the other, like an earth-worm, with a small groove running along the middle of the upper and under part, from one end to the other. The upper part of the body is convex, and near a quarter of an inch thick; the whole surface is covered with minute yellow lirary openings, through which are protruded little suckers, like polypus, each furnished with six tentacles or filaments, which seem to be the proper mouths of the animal. The under part of the body is flat, and the surface is full of the ramifications of feidy fibres, which, proceeding from the intestine of the tail, as their common centre, branch out so as to communicate with the lirary openings on the exterior edge and upper surface of the animal. See
AGARICUS Sine, in Ancient Geography, a gulf of India, on this side the Garusc, according to Ptolemy.

AGARON, in Natural History, a name given by Adam to a species of Voluta; the officina of Catalogue edition of the Lemann System.

AGARIA, in Ancient Geography, a town of Susana, in Asia; placed by Ptolemy in long. 85° 40' and lat. 38° 20'.

AGARUS, a promontory of Azatlic Sarthia, near the river Aganus, which ran from north to south, and discharged itself into the Pelus Mecan. According to Ptolemy, it was situated in long. 69° and lat. 49° 40'. Oval. (Pont. iv. 10.) calls the river, Sagarian, and it is now Sarjed.

AGASUS, a port mentioned by Pliny, situate between the promontory of Gargania and the river Celerus, and supposed to be the same with Porta Græca. Agata, or Agala, was also a town of Macedonia in Europe.

AGASYLLIS, in the Materi Media, a name given by some of the ancient Greek writers to gum ammoniac, and by Dioscorides, to the tree which produces that gum. By their description of this medicine, it appears not to have been the same which we know by this name.

AGATA, in Ancient Geography, a small town and bishop's see of Naples in the Principality Ulbrar.

AGATE, Agazis, Atchus, of Theophrastus and Pliny; Agath, Fr. echt, Germ. Agater, Swed. This word is used by modern mineralogists not as denoting any particular species of stone, but a siliceous mixture of quartz, hornblende, flint, caledecny, amethyst, jasper, carnelian, or heliotrope, aggregated into binary or more complex combinations. It has nevertheless several peculiar characters by which it may readily be distinguished from other minerals. Although it consists of parts differing in colour and transparency, yet these parts is a certain uniformity of arrangement, and slide into each other by such nice gradations as show them to have been all of simultaneous formation; and hence it differs from siliceous Brecia, in which angular fragments of siliceous pebbles are cemented by a siliceous paste; for in all these the cement, whether quartz, caledecny, or flint, is wholly distinct from the fragments that it unites, and the arrangement of the whole is merely casual. As it differs in the colour of its constituent parts, so does its transparency: it is never wholly opaque like jasper, nor transparent as quartz crystal: it takes a very high polish, and its opaque parts usually present the appearance of dots, eyes, veins, zones, bands, or ramifications. Its colours are yellowish, reddish, bluish, or milk white, honey-orange, or ochre yellow, flesh blood, or brick red, reddish brown, violet blue, and brownish green. Specific gravity from 2.55 to 2.7. It gives fire with steel very plentifully.

It is found in the form of irregular rounded nodules, from the size of a pin's head, to more than a foot in diameter; or in strata, and sometimes, though rarely, foliated. Several varieties of agate are distinguished by the lapidaries: the finer semi-transparent kinds, consisting principally of caledecny, are called oriental: in the banded agates the colours are diffused in strait parallel lines or bands; while in the fortification agate, the most beautiful of all the varieties, they are arranged in waved and angular concentric zones: the landscape agate, by the name alone, sufficiently declares its irregular appearance: the mofs agate, or Mocha stone, is filled with dendritical crystalizations of iron ore, so nearly resembling some kinds of moss, as to have been actually mistaken for real vegetation by Daubenton.

Agates are found, for the most part, in argillaceous porphyry, occasionally in gypsum, near the river Wolga; they occur between the strata of secondary limestone, and certain rocky tracts in Siberia consist almost entirely of a pudding stone, of which agates and caledecny form an essential constituent part. The argillaceous porphyry being a rock that is easily disintegrated by the action of the air and moisture, the agates and other siliceous pebbles that it contains fall out and are washed by the rains into the beds of rivers; here, by leaching upon each other, the asperities on their surface are worn off, and in this state they are generally found on the seashore and in gravel beds. The most beautiful agates that this island produces, are commonly known by the name of Scotch pebbles, these are met with in various parts of Scotland, but principally in the vicinity of Dunbar. These stones of Germany are the largest, especially those from Münchendorf in Saxony. The Dutch of Deuxponts, the Basitnatis, Helft, Thuringia, Wurtemburg, Bavaria, Bohemia, and Silesia also furnish them in great abundance. The river Achat in Sicily was of old celebrated for these pebbles, and hence they have acquired their name: the other parts of Europe, where they are found, are principally Tuscany, Candia, and Iceland.

Some exquisite fine specimens have been brought from Siberia, and the island of Gotland; and these appear to be lately have discovered in great plenty in the bed of a river at the eastern extremity of the settlement at the Cape of Good Hope.

The use of agate are principally for ornamental works: the engraved gems, those precious remains of ancient art are principally agate, and much ingenuity has been shown in the accommodation of the natural veins and marks to the figures engraved upon them; it is also much effected by modern lapidaries for seals. Small mortars are made of agate, and are used by the enamebler, and in the laboratory for grinding substances that are too hard to be triturated any other way.

A dark tinge approaching to red, or red purple, may be communicated to agate, by heating it in warm ashes, and then moistening its surface with nitro-muriat of gold, or nitrat of silver; when the stone is become dry, it must be set for a day or two in a dark moist place, and then exposed to the full sun: by this method the most delicate zones and ramifications, which are not visible in the natural state of the stone, are made to appear in a very beautiful manner: this tinge is, however, destroyed by nitrous acid, or a moderate heat: and thus artificial stains may be distinguished from the native colours. A deep black is given to agate by foaking it when heated, in boiling nitrat of copper, and then heating it nearly to redness in a covered crucible. Mocha stones are imitated by spreading a solution of nitrated copper over the surface of a plain agate, and then setting a small iron nail on its head in the middle; the nitrous acid unites with the iron, and deposits the copper in beautiful arborescent radiations from the centre; the nail must then be removed, and the surface carefully washed, by dipping the stone in warm water; afterwards on the application of a moderate heat, the copper becomes black.

This deposition, however, being merely superficial, requires to be covered with a plate of polished crystal, in the manner of a doublet. If the ramifications are required to be very fine, the agate should be moistened with a little nitrat of silver superfused with the metal, or a solution of lunar caustic in water, a small piece of zinc is to be placed in the middle till the ramifications are sufficiently far advanced; the stone must then be washed carefully in warm water, and afterwards exposed to sulphurated hydrogen gas, till the silver is become black.

Agate is said to be imitated very successfully in glafs; and Neris, in his "Art de la Verrierie," gives three different receipts for this purpose: of thefe the following is recommended:
mended both by the author and by Kunkel, as producing a composition for splendour and vividness of colour often superior to real agate. Take seven ounces of granulated silver, and five ounces of mercury, four drams of minium, one ounce of verdigris, and scales of copper, crude antimony, and black manganese, of each half an ounce; diffusive the silver by itself in nitrous acid, and having ground the rest of the materials together, add first two pounds of nitrous acid, and then the nitrate of silver, mixing both liquors evenly and intimately with the other substances; then diffuse two drams of gold in nitro-muriatic acid, and grind together the following ingredients: v. cinnabar, twelve drams; sulphurized oxyd of copper, twenty drams; sulphurized oxyd of iron, four drams, and white oxyd of tin, oxyd of iron, scales, zaffire, opyrmont, and white arsenic, of each half an ounce; mix the solution of gold with this compound powder, and then add three of its weight of nitromuriatic acid; digest in separate glasses vessels for twenty-four hours in a sand-bath the above nitrous and nitro-muriatic mixtures, then add them together, and diffus to dryness; there will remain a powder of a reddish green colour. Also take twenty pounds of clear flint glass, and reduce it to a fine powder, in a clean firelock mortar, add to this two ounces and a half of the above colouring composition, and flush them together; when the whole is in clear fusion, stir it up from the bottom and let it continue melted for twenty-four hours, then stir it again, and allow it to cool very gradually; its colour will then be a middle tint between yellow and blue. Place the crucible again in the furnace, and when the glass is melted, add, at five or six different times, the following mixture; calculated tartar, eight ounces, vitrified wood foot, two ounces, and half an ounce of perfect oxyd of iron; this will make the glass swell considerably, and therefore requires much care to prevent it from flowing over: when all is quiet, heat it well for twenty-four hours longer without touching it, and it will then be fit for use.


Some writers have distributed agates, with regard to the objects that are represented upon them, into arborescent, as Dendrachites and Dendrites; horned or Cerachites; aphrodian, a term given by Velschius to an agate in his cullody, of a flesh colour, with a half moon on one side represented by a milky semeicircle, and on the other, the phases of Vesper, or the evening-star; cordoid, with human hair; arithmetical, with the numbers 4191, 191 (Settala. Muf. 81.); astronomic, with the hemisphere and its several orbs, and the earth in the middle; anthropomorphous, with the figures of men or women, one of which, mentioned by Kircher, represents a heroic armed man; and another, in the library of Francefort, exhibiting the heart, lungs, and part of the veins of a man; but the most celebrated of this kind is that of Pyrrha, representing the nine Muses with their attributes, and Apollo in the middle, playing upon the harp (see Plin. l. xxxviiil. c. 3: Hard. Not.) leucophthalmed, bearing the figures of eyes, as of birds, fishes, and wolves, called by Cardan and others lycophthalmed, of goats denominated cycophthalmed, of oxen buophtalmi, &c.; the Tiberian agate in the treasury of the French king’s chapel, representing the apotheosis of Augustus, and the figures and portraits of the family of Tiberius and Julia, with divers foreign nations subdued in war, concerning which, many different conjectures and explications have been advanced by the learned; and the Fine agate, a curious antique at Rome, so called, because it represents the head of Ivis, and distinguished by the epithet annularis, as being set in a ring. However, in this kind of distribution, and in the denominations to which it has given occasion, the imagination has often misled the judgment.

Becarina observes, that the electric sparks will not be conducted by the surface of polished agates; and M. Bofe has shewn, that the agate was very early known to possess electrical powers.

AGATE, among Antiquaries, denotes a stone of this kind, engraven by art.

In which fench agates make a species of antique gems; in the workmanship whereof, we find eminent proofs of the greatest skill and dexterity of the ancient sculptors. Several agates of exquisite beauty are preferred in the cabinets of the curious. The facts, or histories, repreented in antique agates, with how much address ever so conducted, are become, at this distance of time, many of them obscure and dubious, and their explication difficult enough; whence divers mistakes have been committed, and numerous conjectures and disputes raised. Hil. Acad. R. Inler. tom. i.

AGATE, is also the name of an instrument used by gold-"wire drawers; so called from the agate in the middle of it, which forms its principal part.

AGATHA. See AGATHES.

AGATHA, St. in Geography, a small town of Naples, in the farther principality, on the confines of Terra di Labora, between Capua and Beneventum, eight leagues, north-east of Naples. N. lat. 40° 55′. E. long. 14° 22′.

AGATHA, in Ancient Geography, a city of Gallia Narbonensis, built by the Mazilians, mentioned by Pliny, (lib. iii. c. 4.) and by Strabo, (tom. i. p. 272. 276.) See AGDE.

AGATHA, in Natural History, a species of the Papilio nymphalis, with dentated wings, the upper part yellow, the under grey; and the posterior wings have one black spot above, and three spots beneath. It is found in India.

AGATHARCHIDES, or AGATHARCHUS OF Cnidus, in Biography, a Greek historian, grammarian and rhetorician, mentioned by Josephus, (antiq. l. xiii. c. 1. tom. i. p. 585. Coxt. Appion. i. tom ii. p. 457. Ed. Hard.) Diodorus Sicculus, (Bibl. Hist. tomt. i. p. 50. p. 181. Ed. Wess.) Strabo, (tom. ii. p. 969. p. 1125. Ed. Caenab.) Lucian, (tom. iii. p. 222. Ed. Reitz.) and other ancient writers, was contemporary with Eratothenes, though younger than him, and flourished under Ptolemy Philometor, about 177 years before Christ. He was reader to Heracidus, and president of the Alexandrian Library, and wrote several historical treatises of which Photius mentions 49 books, concerning the affairs of Europe, 10 of Asia, five of the Red Sea, and an epitome of what had been written on this subject in one book. Some fragments of his writings may be found in Josephus (sub super.), and Photius in his Bibliotheca, 213-256. Fabric. Bibl. Græc. tom. ii. p. 207. The testimony of Agatharchides is allayed by a learned writer to prove, that in the reign of Ptolemy Philometor, 146 years after the death of Alexander, the Greek sovereigns of Egypt had not yet trade directly to India, but imported the commodities of India from Saba, the capital of Yemen. This ancient writer’s description of the western coast of the Red Sea cloes to Ptolemais, as if there were no regular commerce beyond that point. See Vincent’s Periplus of the Erythraean Sea, part i. p. 31. 

AGATHEREMER Orthothes, a geographer, who lived, as some say, near the time of Septimius Severus, and according to others, in the 15th century. He wrote in Greek two books of a compendium of Geography for the use of his pupil Philo, which is commended by J. Vossius, L. Holsteinius and G. Wendelinus, and which was first published in 8vo. with a translation and notes, by Tenuulus, at Amsterdam, in 1671; afterwards by Gronovius in 4to. at Leyden, 1679; and
and by Hudson in the 24 vol. of the Geographi Minores

AGATHIAS, one of the Byzantine historians, was
born at Myrina, a city of Æolis; and having studied the
law at Alexandria, exercised the profession of an advoca
te at Smyrna, and acquired the appellation of Scholasticus, from
the schools in which lawyers were instructed. Although in
the introduction to his history, he speaks favourably of
the Christians, it does not appear that he himself was of
this number; Volfinus and others believe that he was a Pagan;
Pagi and Fabricius maintain, that he was a Christian. It is
certain that no invectives against Christianity have escaped
him, or Procopius. He was undoubtedly a man of
and the Saracens. In speaking of the Germand, who
had a multitude of deities, and offered cruel sacrifices, he
says, they who are in error are rather objects of commiser-
tation, than of contempt and hatred; for all men aim at truth:
if they are in error, it is not the fault of their will but of
their judgment, as they are attached to opinions once
embraced by them. He also laments, in the introduction to
his history, that wars and battles are so much the subjects
of poems and histories; which, as he says, he cannot
ascend to the stars, nor to fate, as some do: for if the
world were governed by fate, there would be an end of
choice; and there would be no longer virtue among men,
nor any room for instruction or improvement in arts and
sciences. Nor are wars and contentions, he adds, agreeable
to the mind of God, who is supremely good: they must
therefore be ascribed to the avarice and ambition of men.
His history was written after the year 565, when Julian
and, and published after the year 593. It was undertaken
at the desire of Eutychianus, secretary of state, who is
supposed to have furnished materials; commences with the
26th year of the emperor's reign, A. D. 525; where
Procopius ends, and closes with the death of the Hun
in 559. He investigates the causes of the events which he
records, and often gives his opinion of them without dif-
guise. His style is easy and florid, though Sigerius has re
presented him as a low and unpublishable writer. He also
wrote 80 Epigrams, which are preferred in the Antholo
gia; and, as Suidas informs us, other pieces, partly in prose
and partly in verse, intitled, "Daphniaca." Agathias's
history was published by Vulcanius, with a translation and
notes, at Leyden, in 410. A. D. 1594; and elegantly

AGATHIAS, a very famous Greek flautist, born at
Ephesus. According to some accounts, this was the
sculptor who executed the celebrated Apollo Belvidere;
and the Gladiator Repelleus: but other accounts, more
to be relied upon, state, that the artists who produced those
works are certainly unknown.

AGATHO, the Athenian, a tragic and comic poet,
was the disciple of Prodicus and Socrates, applauded by
Plato, in his Protagoras, (Oper. tom. i. p. 315. Ed. Ser
rani) for his beauty and virtue, and described by Areti
phanes in his comedy of the Frigs, (p. 124. Ed. Küteri) as
a good poet and the darling of his friends; but severely
censured for his morals in the comedy, intitled Thespopho
rizule, (p. 484.) He is represented as the favourite of
Euripides, and also of Paeanias the Ceramian, whom he
accompanies, as Ælian informs us (Var. Hist. l. ii. c. 21.
tom. i. p. 120. Ed. Gronov.), to the court of Archelaus,
king of Macedon, where he continued till his death. Ælian
says, that he often quarrelled with Paeanias for the sake of
enjoying the exquisite pleasure which a reconciliation affor
ded him. His first tragedy obtained the prize; and he was
crowned in the presence of 30,000 persons, in the 4th year
of the 96th olympiad, B. C. 417. There is nothing now
extant of Agatho, except a few quotations preserved by
Ariotle, Athenæus, Ælian and others. His compo
sitions abounded so much with antitheses, as to give him oc
sion for saying to a person, who wished him to expunge
them, "you do not consider that you would rend Agatho
from himself?" See Ælian (Var. Hist. l. xiv. c. 13. tom. ii.
p. 454.) Athenæus (Deipnosophist. l. v. p. 211. Ed. Ca
fani.) cites the following antitheses: "If I tell you the truth,
I shall not please you; and if I please you, I shall not tell you
the truth." The antitheses recorded by Ariotle, (Endemi
orum. l. v. c. 2. et c. 4. tom. ii. p. 243. 244. and Rheter.
l. xii. c. 246. tom. ii. p. 581. Ed. Du Val.) are the three
following: "The only thing impossible to God, is to cauc
that not to be made that has been made:" "fortune loves
art, and art loves fortune:" "it is probable, that a great
many improbable things may happen to mortals."

AGATHO, Pope, a native of Palermo, who was ad
vanced from a monastery to the papal see, in 679. At this
time the controversy occasioned by the Monothelitists agi
tated the Christian church, and the first exercise of Aga
tho's pontifical authority was that of convening synods in
the western provinces, to decide concerning their doctrine.
These synods having declared the Monothelistic doctrine to
be heretical, Agatho sent legates on behalf of the western
church to the general council held at Constantinople in 680.
At this council the Monothelites were solemnly condemned.
Thus Agatho, by his legates, renounced a doctrine which
had been confirmed by the edict of a former council, and
functioned by the approbation of his predecessor, Pope Ho
norus; and he concurred in the condemnation of Honorius,
and enforced by penal laws the sentence of the council.
In this advance the infallibility of Honorius, and that of Aga
tho and the fifth council, are in direct opposition. It is
observed, likewise, as a fact worthy of notice in the history
of the papal power, that this council was summoned by the
emperor; that no appeal was made to the decision of former
popes; and that no peculiar deference was manifested to
the authority of the bishop of Rome. After the dissolution
of this council, Agatho directed his attention to the temporal
interest of his see, and particularly to the remission of the
fine paid to the emperors on the election of a new pope.
He died, A.D. 682. His faculty was held in such veneration
that, if we credit the account of Plutarch, his kits
was an infant cure for the leprous. His letters against the
Monothelites, addressed to the emperors Constantine, He
rachus, and Tiberius, Gr. and Lat.; and to Ethelred, king
of the Mercians, and Theodore, archbishop of Canterbury,
Lat.; and the abbot Sexulfus, which hit is said to be sup
posititious and written by some English monk, are prefered
in the records of the sixth council, A.D. 680. Harduin's
Concilia. tom. iii. Another letter, granting peculiar privile
ges to the monastery of Weremouth, may be seen in
Dugdale's Monasticon Anglicanum. Dupin's Hist. Seventh

AGATHOCLES, king, or tyrant of Sicily, was the
son of Carinus, a potter, of Rhegium, and born at Thermae
in Sicily. In consequence of strange dreams of his mother,
whilst she was pregnant, to which the father paid a super
stitious regard, the infant was exposed in the fields, as soon
as it was born, and committed to the care of a person who
was to watch it till it died. The mother, hearing of his
condition, took the child and entrusted it with her brother
Heracleis, and called it, after her father's name, Agatho
cles. At the age of seven years, he was introduced to the
father, and the secret of his preservation was communicated
to him by the mother. The dieters occasioned by self-re
proach in the recollection of his conduct, was soon succeeded
by
by the joy of having a son, who was singularly beautiful, referred to him. Soon after the discovery, Carthage, with his family, removed to Syracuse, and brought up his son to his own trade. Having joined Timoleon, who had routed the Carthaginians both the father and son were enrolled among the Syracusans citizens. Upon the death of Carthage, Agathocles was recommended to Demas, a rich citizen, by whose favour and interest he was liberally supplied, and, in due time, advanced to the dignity of a chalirc, an office which gave him the command of a thousand men. Agathocles, having distinguished himself by his military talents, married the widow of his patron, Demas, and thus became the most wealthy citizen of Syracuse. When the supreme power in this city was usurped by Sophistratus, Agathocles retired to Italy; but aspiring to the sovereignty, rift of Crete, and afterwards of Taras, he became an object of general hatred and terror; and being expelled from these cities, and finding no admission into any other, he assembled a band of exiles and robbers, and plundered the country. At Rhegium, he unexpectedly attacked Sophistratus, and compelled him to abandon his enterprise. When this usurper was forced to abdicate the sovereignty of Syracuse, and to quit the city, he and the exiles who accompanied him, had recourse to the Carthaginians, who espoused their cause. The Syracusans recalled Agathocles, and appointed him to the chief command of the forces that were raised for repelling the attack of Sophistratus and the Carthaginians. Having successfully discharged the trust that was repose in him, he assumed a sovereign power, and by the measure he purposed convinced his fellow-citizens that he was aspiring to the monarchy. The Syracusans, in these circumstances of alarm and danger, applied to the Corinthians for a commander; and they deputed Accociari des to this office. Agathocles favored his life by a stratagem; and having made his escape, he proceeded to raise troops in different parts of Sicily, and was soon in a condition to approach the city at the head of a considerable army. The Syracusans, dreading a civil war, sent ambassadors to treat with Agathocles, who disbanded his forces; and being conducted by the citizens to the temple of Ceres, took a solemn oath, according to the established custom, that he would do nothing to the prejudice of the democracy. Being again referred to the chief command of the army, he indulged his ambitious views without regard to his oath, courted the favour of the populace, and massacred the nobles and chief citizens, so that in a few hours, more than 4000 of them were killed, and the streets were covered with dead bodies. Although he pretended to resign the command and to retire, he conducted his artifice with so much skill and secrecy, that he was unanimously proclaimed king, and appointed to govern with an absolute and uncontrollable power. In order to render himself popular, the first law he enacted was, that all former debts should be cancelled, and the lands equally divided among the rich and the poor; and such was his behaviour, that he gained the attachment and confidence of his subjects. With their cordial concurrence he reduced, in two years, the whole island; a few cities held by the Carthaginians excepted. His progress alarmed the Carthaginians, and they proceeded Hamilcar, with a powerful fleet and army, to restrain it. The first encounter, near the river Himera, terminated in favour of Agathocles; but the loss which Hamilcar had sustained by a storm in his voyage, and by the full engagement, being repaired by a powerful reinforcement, the attack on the part of the Carthaginians was renewed, and Agathocles was compelled to save himself, first in Gela, and afterwards within the walls of his metropolis, to which they laid close siege; proposing by the reduction of this city to gain possession of the whole island. Thus pressed by the Carthaginians, and abandoned, on account of his former cruelties, by all his allies in Sicily, Agathocles formed the bold design of transferring the war into Africa, and besieging Carthage, when he himself was besieged in the metropolis, which was the only city of Sicily in his possession. Without communicating his design to any confidential person, he informed the Syracusans in general terms, that he had conceived a plan which would be effectual for their refuge: and collecting together the most intrepid of the soldiers and citizens, and incorporating the slaves, whom he emancipated, among his troops, he embarked all his forces on board 60 galleys, sailed directly for Africa, and landed on the coast, in the third year of the 117th Olympiad, B.C. 310. Here he dislodged the views of the army, and animated them to vigorous efforts by assurances of success. The soldiers received his addresses with loud acclamations. He then determined to burn all his galleys, except one or two, which he reserved for carrying dispatches. When he communicated this daring resolution to the army, he told them, that when they left Syracuse and were pursued by the enemy, he applied in the moment of danger to Cereus and Proserpine, the tutelary goddesses of Sicily, and promised to burn all the vessels of his fleet, if they delivered his men from the enemy, and enabled them to land safe in Africa. “Aid me, therefore, 0 fellow soldiers!” said he, “to discharge this vow; for the goddesses can easily make us amends for this sacrifice.” When these words were uttered, he allowed no time for deliberation; but taking a torch in his hand, he set fire to his own ship; the officers imitated his example, and were cheerfully followed by the soldiers. He next led them against an important place, called the Great City, that was subject to Carthage, which they took by storm; they then proceeded to Tunis and took it. Having enriched themselves with the plunder, he caused both cities to be levelled with the ground, that there might be no place of retreat, and no hope of safety but in victory; and encamped in the open fields. He next proceeded towards Carthage, and charging the Carthaginian army, he made an unexpected sally and routed his army, confining of 120,000 men, and put to a cruel death. His head was sent to Africa, as an acceptable present to Agathocles. Whilst Agathocles was preparing for the siege of Carthage, he was joined by Ophellus, prince of the Cyreneans, who had been one of Alexander’s captains, but the deposed prince was perjuredly murdered. The savage tyrant, being now at the head of a numerous army, assumed the title of the king of Africa; and invested Carthage, with a view of reducing it by famine. During this interval, he passed over into Sicily with a detachment of 2000 men, in order to reduce those inhabitants of the cities, who had taken up arms and associated in defence of their liberties. His purpose was speedily accomplished; and he hastened his return to Africa. He found his army in great dillets; and in an attempt for obtaining relief, he was defeated, and then defeated by the Africans, so that he was under a necessity of leaving the country. Upon his return to Sicily, he perpetuated the most horrid acts of cruelty. He first marched against the Egelines, who had revoluted in his absence, and having taken their town by storm, he put all the inhabitants to death, without distinction of age or sex, and with circumstances of the most savage barbarity. He also ordered all those to be massacred who were related to the Syracusans, who attended him in the Carthaginian expedition,
AGATHONIS, in Ancient Geography, an island of Africa, in the Arabian gulf; according to Ptolemy, in long. 65° 15', and lat. 23° 20'.

AGATHONISI, a small island of the Grecian Archipelago, about a league south of Samos.

AGATHODÆMON, in Mythology, a beneficent Genius, or Demon. The word is compounded of agath, good, and dæmon, demon. This name was given to the divinity, which the Egyptians called Cneph, by the Greek writers who travelled into Egypt; and Vulcan was the emblem under which the Greeks represented Cneph in their temples. The Egyptians gave also the same name to the Nile and to its symbols.

Among ancient writers, agathodæmon is a denomination given to a kind of serpents, bred up and revered by the Egyptians, from an opinion of some futility residing in them. They are also called dragons, Dracontes, or draconculi, and fabulously deformed as having wings. They appear to be the same with those otherwise called serpentes. Lamprid. in Helig. cap. xxviii. Cæs. Not. in Suet. ed. 2. Bochart, Hier. p. ii. lib. iii. cap. 14. We find upon the abraxas and some medals of Adrian the representation of a serpent, bearing the head of Serapis instead of its own; which is an evident allusion to the Serapis of the Nile, or divinity of Canopus, and a second emblem of that river which was first represented by Agathodæmon. The head of the Agathodæmon is often covered with rays on the abraxas. The appendages to the head of the agathodæmons remind us of the oothæcæ serpentes of Linnaeus.

AGATHODÆMON, in Biography, an artist of Alexandria, prepared a series of maps for the illustration of Ptolemy's Geography, in which the position of all the places mentioned by this eminent geographer, with their latitude and longitude, is laid down precisely according to his ideas. Fabr. Bib. Graec. tom. ii. p. 412.

AGATHYRSIANS, in Ancient History, the inhabitants of a district of Scythia, or European Sammtia, mentioned by Herodotus (lib. iv. c. 104. p. 328. Ed. Weiseling.) who were very rich, and who had their women in common, for the sake of binding the men more intimately to one another, and preventing jealousies and other ill effects of monadity. In other respects they conformed to the usages of the Thracians. From Virgil (Æneid. iv. v. 146.) who calls them "—pici Agathyrsi," it appears, that they had the common practice of painting their bodies. They also are said to have used gold in their ornaments. They pretended to be descended from Agathyrsis, the son of Heracles the Libyan.

AGATTON, in Geography, a town of the kingdom of Beain, in Africa, situated on a small eminence, forming an island, at the entrance of the river Formosa, near the sea. It is more healthy than any other part of the country, and surrounded with fruit trees. It has several circumjacent villages, whose inhabitants resort to it at every principal market, which is held for five days. It was formerly very considerable, but has suffered much from wars. N. lat. 6° 30'. E. long. 5° 44'.

AGATU, one of the Fox islands, in the Northern Pacific Ocean.

AGATY, the name of a Malabar tree, bearing a fruit in taste and shape like the kidney-bean. Ray's Hist.

AGAU, or AGAW, in Geography, a small kingdom of Africa, dependent upon Abyssinia. It lies between the lake Dumea and the Nile.

AGAVA, in Ancient Geography, a town of Africa, placed by Ptolemy in the Pentapolis, or Syris.

AGAVE, formed from aquac, admirable, in Botany, a genus of the hexandria monogynia class and order, of the natural order of coronarize, and of the tribe of Juficus. Its characters are, that it has no calyx; that the corolla is one-petalled, and funnel-shaped, with a fix-parted equal border, and lanceolate erect parts; the lamina are filiform, erect filaments, longer than the corolla; the anthers linear, shorter than the filaments and veriscal; the pistil is an oblong germen, growing thinner towards both ends, inferior; the style filiform, of the length of the lamina, and three-cornered; the stigma headed and three-cornered; the pericarpium is an oblong, three-cornered, three-celled, three-valved capsule; and the seeds are numerous. The species enumerated...
enumerated by Martyn are six, and in the Linnaean system by Gmelin seven. The first is the A. Americana, or Great American aloe, whose stems, when vigorous, rise upwards of twenty feet high, (one in the king of Trujilla's garden rose to 40 feet,) and branch out on every side, so as to form a kind of pyramid, composed of greenish yellow flowers, which blend crefil and come out in thick clusters at every joint. The seeds do not come to maturity in England. When this plant flowers, it makes a beautiful appearance; and if it be protected from the cold in autumn, a succession of new flowers will be produced for near three months, in favourable seasons. It has been a common error, that this plant does not flower till it is 100 years old: the truth is, that the flowering depends on its growth; so that in hot countries it will flower in a few years; but in colder climates the growth is slower, and it will be much longer before it flowers up a stem. The first European who possessed an American aloe, is said to have been Cortusius, who had one in 1561; and Parkinson reports that it was first brought into Spain. The first that flowered in England is said to have been Mr. Cowell's, at Hoxton, in 1729, but they have occurred fo since that time, that they are now fearlessly considered as rarities. Few of the varieties with yellow-edged leaves have yet bloomed. There are hedges of the common agave in Spain, Portugal, Sicily and Calabria; it flourishes also about Naples, and in other parts of Italy. The juice of the leaves, strained, and reduced to a thick confistency by being exposed to the sun, may be made up into balls, by means of yce-shees. It will lather with salt-water as well as fresh. The leaves, instead of passing between the rollers of a mill, may be pounded in a wooden mortar, and the juice brought to a confistency by the fun or by boiling. A gallon of juice will yield about a pound of soft extract. The leaves are also used for scouring pewter, or other kitchen utensils, and floors. In Algarvia, where pailure is scarce, they are cut in thin transverse slices, and given to cattle. The inward substance of the decayed stalk will serve for tinder. The fibres of the leaves, separated by bruising and steeping in water, and afterwards beating them, will make a thread for common ufs. The process for this purpose at Loule, in Portugal is as follows: Having plucked the largest and best leaves, one of them is laid on a square board which a person presses obliquely between his breast and the ground, and he separates it with a square iron bar held in both hands; thus all the juices and pulp are pressed out, and the nerves of the leaf only remain, which may then be divided into very fine threads. Threc are hung over a thin cord to dry. This thread is not strong, and easily rots in water, but it consists of straight fibres, and is applicable to many purposes.

Linck's Travels in Portugal by Hinckley, p. 345. Varieties of the common American agave, with gold and silver-striped leaves, are not now uncommon in the English gardens. The Karatto agave is a variety brought from St. Christopher's, and the name is given to other species of this genus, and has leaves from 2½ feet to 3 long, and about 3 inches broad, ending in a black spine, and more erect than those of the others. This variety has not flowered in England.

2. A. visipara, or chilting agave or aloe, is a plant with toothed leaves, never grows to a large size; as it produces no suckers from the root, it cannot be increased till it flowers. This plant grows in St. Domingo and Jamaica, and its juicy juice forms a part of the caballine aloes of the thorns. It was first cultivated by Mr. Miller, in 1731.

3. A. virginica resembles the first so much as not to be distinguishable from it, except by good judges. The leaves are narrower and of a paler colour; the flmes are not so high, nor do they branch in the same manner; but the flowers are collected into a close head at the top. It was introduced in 1755, into the Kew garden, by Mr. J. Cree. 4. A. brida has two varieties, viz. the Vera-Cruz agave, which resembles the first, with thinner leaves, indented at the edges much closer and not so deep, and blunter spines; and the rigid or narrow-leaved agave, with long, narrow, stiff leaves, cut at and terminated by a stiff black spine. It was cultivated in 1731, by Mr. Miller. 5. A. tuberosa, or tuberous-rooted agave, has the leaves indented at their edges, and each indenter terminates in a spine; the root is thick, and swells close above the surface of the ground; in other respects it agrees with the last species; it has two varieties, viz. the angle-leaved and double-leaved agave. It grows in the Antilles, and has been cultivated at Paris under the name of A. anfibus. 6. A. foetida has long, narrow, stiff leaves, of a pale green colour, waved on their edges, thoro on the side spread open, and those in the centre closely folded over each other, and encompassing the bud. The juice of the leaves has a bad smell. It is seldom more than 3 feet high, but the flower stems rise near 20, and branches out in the manner of the fruit, but more horizontally, and the flowers are smaller and of a greener colour. This species grows in the woods of St. Domingo. A plant of this species, which flowered in 1755, and then died, was cultivated in 1690 in the Royal garden at Hampton Court. Of the leaves are formed ropes and various kinds of cloth, which serve for garments and other purposes.

The fourth and fifth, with the Karatto and rigid agaves, are more tender than the others, and cannot be preferred in winter, unless they are placed in a warm house, nor will they thrive if set abroad in the summer. They require a light sandy earth, and should have little wet in winter, unless they are placed in a warm house; but in hot summer they may be gently watered twice a week. They must be shifted every summer into fresh pots; but the pots should be small, that their roots may be confined; otherwise the plants will not thrive. Limenius has separated this genus from the alae, because the flowering and style are extended much longer than the corolla, and the corolla falls upon the germ. Besides, all the agaves have their central leaves, closely folded over each other, and embracing the flower-stem in the centre; so that these never flower till all the leaves are expanded, and when the flower is full, the plants die. Whereas the flower-stem of the aloe is produced on one side of the stem, annually from the same plant, and the leaves are more expanded than in this genus, Martyn's Miller's Dice.

A. cavi, in Mythology, the name of one of the 50 Nereids. A. cavi, in Natural History, a species of Papilio Demanus, with roundish yellow wings; the anterior black above and brown below. It is found in Cayenne.
AGAVI, in Ancient Geography, a people of Mæria, or of Thrace.

AGAUNA, now St. Maurice, a burgh of the Valtain, in the valley of Pennine, celebrated on account of the martyrdom of the Theban legion, who suffered decimation rather than renounce Christianity. Sigismund, king of Burgundy, erected a monastic here in 515. AGAULPE, in Belamy, a name used by some authors for the common white water-cress.

AGAZZI, in Geography, an ancient people near the mouth of the Vittula.

AGBIENSIUM municipium, Breisens, a municipal town of Africa, built upon a hill, about half a league from Thueca. Here are found the ruins of ancient temples.

AGDAMI, a town of Arabia Felix, placed by Ptolemy in long. 3° 30', and lat. 21° 30'.

AGE, anciently Agatha, a small but populous city in the department of Herault, and late province of Languedoc in France, in a diocese of the same name, situated on the river Hérault, at the distance of about half a league from the sea. The diocese is one of the richest districts of the country; it is within the province of Narbonne, and contains 18 parishes. The ancient Agatha was a small island, but the accumulation of sand at the mouth of the Hérault has now joined it to the continent. It produces fine wool, wine, oil, corn, and silk. The town has a harbour for small vessels, defended by a little fort at the mouth of the river. Most of the inhabitants are traders or seamen. The houses are mean, the cathedral small, and the bishop's palace an old building. The bishop is lord of the city, and files Count of Agde. The chapels of Notre Dame de Grace, in the vicinity of the town, attract a great number of pilgrims and devotees. The Capuchin convent is also much referred to an account of the image of the Virgin Mary, which is placed in a distinct chapel adjoining it: the convent has apartments for the accommodation of the pilgrims, who repair hither to perform their nine days' devotion. The vicinity of Agde abounds with extinguished volcanoes. Cap d'Agde is one of them; and the rock of Agde is nothing but a hard lava, so that the town is built and paved with this lava, which is very black. Buffon's Nat. Hist. by Smellie, v. ix. p. 201. N. lat. 43° 18' 57". E. long. 3° 28' 11''.

AGDENAS Bay, is a part of that of DRONTHEIM, in Norway; in the neighbourhood the soil produces plenty of grain.

AGDENITES, a name given to a people of Carmania.

AGDERUINE, a small town in the island of Minorea, situated near a mountain south-east of Cape Bajobes. N. lat. 45° 15'. E. long. 4° 14'.

AGDISTIS, a mountain of Asia Minor, near the town of Pefinus.

AGDU: a rock on the frontiers of Asia Minor, famous in ancient mythology.

AGE, in Antiquity, a word which was proclaimed by a public crier whilst the Roman magistrates were taking the augurice, or whilst they were sacrificing, in order to command the attention of the people. The word was also an order to the priest or other person, for immolating a victim, as age, or bac age, in reply to his question, ageon? or agone? shall I strike? Thus Ovid Fast. i. 321. tom. iii. p. 33. Ed. Burm. "Quât profè sìt virum tumidum tenuisse figna luctos Semper agone? rogas; nee nisi Julius agis."

See Acon.

Age, in the most general sense of the term, denotes the duration of any substance, animate or inanimate; and is applied either to the whole period of its existence, or to that portion of it which precedes the time to which the description of it refers. In this sense it is used to signify either the whole natural duration of the life of man, or any interval of it that has elapsed before the period to which we refer. The ordinary age of mankind has been observed to vary in such a manner as to afford an instructive and pleasing display of the wisdom of divine Providence. When age is understood of a certain portion of the life of man, its whole duration is divided into four different ages, viz. infancy, youth, manhood, and old age: the first extending to the 14th year; the second, denominated youth, idleness, or the age of puberty, commencing at 14, and terminating at about 25; manhood, or the virile age, concluding at 50; and the last ending at the close of life. Some divide the first period into infancy and childhood, and the last likewise into two stages, calling that which precedes the age of 75, decrepit old age. Shakespeare has admirably described these different stages in his comedy of "As you like it."

——— "His acts being seven ages. At first, the infant, Mewling and puking in the nurse's arms; And then, the whining school-boy, with his satchel, And shining morning face, creeping like snail Unwillingly to school: And then, the lover; Sighing like furnace, with a woful ballad Made to his mistress' eye brow: Then, a soldier; Full of strange oaths, and bearded like the pard, Jealous in honour, sudden and quick in quarrell, Seeking the bubble reputation.

Even in the cannon's mouth: And then, the justice; In fair round belly, with good capon lin'd, With eyes severe, and beard of formal cut, Full of wise saws and modern instances, And so he plays his part: The sixth age shifts Into the lean and slipper'd pantaloon; With spectacles on nose, and pouch on side; His youthful hose, well sav'd, a world too wide For his shrunk hand, and big manly voice, Turning again toward childish treble, pipes, And whistles in hisfound: Laat scene of all, That ends this strange evenfentful history, Is second childishness, and mere oblivion; Sans teeth, sans eyes, sans taste, sans everything.

See Longevity.

Age is applicable to the duration of things inanimate or factitious; and in this use of the term we speak of the age of a house, of a country, of a state or kingdom, &c. It is likewise used in reference to vegetable substances, as of roots, leaves, corn, wine, &c. Trees are said, after a certain age, to waste and decay. An oak, at 100 years old, ceases to grow. The usual rule for judging of the age of wood, is by the number of circles which appear in the substance of a trunk or stake cut perpendicularly, each circle being supposed to be the growth of a year; though some reject this method as precarious, alluding, that a simple circle is sometimes the product of several years; besides that, after a certain age, no new circles are formed. Phil. Trans. N. S. 43. Act. Emd. Illip. 1713.

Age, in Chronology, is used for a century, or a period of 100 years, in which sense it is the same with sexa, and differs from generation. It is also used in speaking of the time past since the creation of the world.

The several ages of the world may be reduced to three grand epochs, viz. the age of the law of nature, called by the Jews the void age, from Adam to Moses.—The age of
AGE

the Jewish law, from Moses to Christ, called by the Jews the present age.—And the age of grace, from Christ to the present year. The Jews call the third age, the age to come, or future age; denoting by it the time from the advent of the Messiah to the end of the world. See Incarnation and Epoche.

The Romans distinguished the time that preceded them into three ages: the obscure or uncertain age, which reached down as low as Ogyges king of Attica; in whose reign the deluge happened in Greece.—The fabulous, or heroic age, which ended at the first Olympiad; and the historical age, which commenced at the building of Rome. Varro calls the period preceding the deluge, an age entirely unknown. The second he calls fabulous, on account of the numerous fables, with which the accounts of it, that have been transmitted to posterity, are interwoven. Diodorus Siculus, (tom. i. p. 8.) extends the fabulous age no farther than the Trojan war; from which time the multitude which had overcast the preceding periods begins to clear up, and some rays of truth to break out. The commencement of the historical age is usually referred to the first Olympiad, in the year of the world 3228, and still continues. This division, it is to be observed, only holds good with regard to the Greeks and Romans, who had no histories earlier than the first Olympiad. The Jews, Egyptians, Phœnicians, and Chaldees, not to add the Indians and Chinese, pretend to much higher antiquity.

Among the poets, the four ages of the world are, the golden, the silver, the brazen, and the iron age. See the Metamorphoses of Ovid, lib. i. or rather Hesiod, in his poem, Epya aei Τηςειν, Opera et Dies, ver. 108, &c. He is the first that has described these four ages.

During the golden age Saturn reigned, and universal harmony and plenty prevailed. See Saturn. The silver age commenced when men began to deviate from the paths of virtue, and their lives became less happy. The brazen and iron ages denote periods of greater degeneracy. A late author, however, inverts the order of the poets: and thinks the first, which was a period of ignorance and barbarism, might be more properly denominated an iron than a golden age; when cities and states were founded, the silver age commenced; and since arts and sciences, navigation and commerce, have been cultivated, the golden age has taken place.

Bochart (Geog. Sac. i. v. 12. t. i. col. 226. Ed. Villem.) has described these four ages of the poets in the following manner. The first, or golden age, lasted under the government of Saturn, or Noah, 100 years from the flood to Phægæ, in which period there was no division of the land. Thus Tibullus represents it, (lib. i. eleg. iii.)

"Non fixus in agris,
Qui regeret certis flibus arva, lapis."

And Virgil (Geog. i. v. 126.)

"Nec signare quidem aut partiri limite campum
Fas erat."

In the silver age, the lands were divided and cultivated, housetops were built, and the tower of Babel was erected.

"Tum primum subiecit domos, &c."

The third, or brazen age, was marked by the inscription of Nimrod, the Bacchus of the ancients, frat a hunter and afterwards a warrior, who transferred his power from wild beasts to men, and established a tyrannical government. Thus described by Virgil, (ubi supra. v. 139.)

"Tum laqueis captare feras, et fallere vident,
Inventum: et magnos caelibus circumdare faltus."

And by Ovid: Metam. lib. i. v. 125.

"Tertia post illis succeddit aenea proles,
Sevior ingenii, et ad horrida prontior arma."

And also by Hesiod, (Op. and Dies. v. 143. p. 134. Ed. Robin.) thus translated:

"Tertia deinde ætas summi Jovis edita nutu,
Villor argento, de duro conßlitit ærc.
Fraxina et vehementibus rubibus quo,
Martiis amore
In pugnis et bella mues."

This was succeeded by the iron age in which we live. On some ancient northern monuments we find the rocky or iron age, which corresponds to the brazen age of Hesiod, and the Greeks; being called rocky, on account of Noah's ark, which rested on mount Ararat. The northern poets also denominate the fourth age the athen age, from a Gothic king, Madenis or Mannus, who, on account of his great strength, was said to be made of steel; or because in his time people began to make use of weapons made of that wood. Phil. Trans. N° 301.

Age is sometimes used among the ancient poets in the same sense with Generation, for a period of 30 years. Thus Nefor is said to have lived three ages, when he was 90 years old.

The East Indians also reckon four ages since the beginning.—The first, which they represent as a fort of golden age, lasted according to them, 178000 years: in this the god Brahma was born, and the men were all giants; their manners were innocent: they were exempt from diseases, and lived 400 years.—In the second age, which lasted 1296000 years, their rajas were born; vice now crept into the world: men lives were fallen to 300 years, and their size retrenched proportionally.—Under the third age, which lasted 8064000 years, vice being more increased, men only attained to 200 years.—The last age is that wherein we now live, of which 4027213 years are already gone; and the life of man sunk to one fourth of its original duration.

The period preceding the birth of Jesus Christ has been generally divided into six ages. The first extends from the creation to the deluge, and comprehends 1656 years. The second age, from the deluge to Abraham's entering the land of Promise, A. M. 2082, comprehends 426 years. The third age, from Abraham's entrance into the promised land to the Exodus A. M. 2512, includes 430 years. The fourth age, from the Exodus to the building of the temple by Solomon, A. M. 2992, contains 480 years. The fifth age, from the foundation of Solomon's temple to the Babylonian captivity, A. M. 3316, comprehends 424 years. The sixth age, from the Babylonian captivity to the birth of Jesus Christ, A. M. 4000, the fourth year before the vulgar æra, includes 584 years. Those who follow the Septuagint, or Greek version, divide this period into seven ages, viz. 1. From the creation to the deluge, 2262 years. 2. From the deluge to the confusion of tongues, 738 years. 3. From this confusion to the calling of Abraham, 460 years. 4. From this period to Jacob's descent into Egypt, 215 years. 5. From this event to the Exodus, 430 years, making the whole 645 years. 6. From the Exodus to Saul, 774 years. 7. From Saul to Cyrus, 583 years. From Cyrus to the vulgar æra of Christians, 538 years; the whole period from the creation to this period, containing 6000 years. See Chronology.

The Sibyl line oracles divide the duration of the world into
ten ages; and, according to Josephus, each age contained 600 years; and it appears by Virgil's 4th eclogue, and by other testimonies, that the age of Augultus was reputed the end of those ten ages; and, consequently, as the period of the world's duration. The age of Augultus was appropriated by the senators in a peculiar manner to the time in which this emperor lived.

Other historians reckon from the creation to the taking of Troy, 2836 years; and to the foundation of Rome, 3250; from the conquest of Carthage, by Scipio, to Jesus Christ, 2003; from Jesus Christ to Constantine, 512; and to the re-establishment of the empire of the West, 826 years.

The denomination of middle age is applied by some to the space of time, which commenced from Constantine, and ended with the taking of Constantinople by the Turks, in the 15th century; or, to the interval that elapsed between the fall of the western or Latin empire, near the close of the fourth century, and that of the eastern or Grecian about the middle of the fifteenth, comprehending near 1000 years. Others date the middle age from the division of the empire by Theodosius, at the close of the fourth century, and extend it to the time of the emperor Maximilian 1. at the beginning of the 16th century, when the empire was first divided into circles. But this seems more accommodated to the state of Germany in particular, than to that of Europe in general. The middle is by some denominated the barbarous age, and the latter part of it the lowest age. Some divide it into the non-academic and academic. The former comprehends the interval from the 6th to the 9th century, during which schools or academies were lost in Europe. The latter denotes the period from the 9th century, when schools were restored, and universities established, chiefly by the care of Charlemagne.

Age, in the History of Literature and the Arts, is applied to a period peculiarly distinguished by the cultivation of learning, and the extraordinary productions of genius. Accordingly learned men have marked out four of these happy ages. The first is the Grecian age, which commenced near the time of the Peloponnesian war, and extended till the time of Alexander the Great; within which period we have Herodotus, Thucydides, Xenophon, Sophocles, Plato, Aristotle, Democritus, Aeschines, Lycurgus, Isocrates, Pindar, Aeschyus, Euripides, Sophocles, Aristophanes, Menander, Anacreon, Theocritus, Lylyus, Apelles, Phidias, Praxiteles. The second is the Roman age, included nearly within the days of Julius Cesar and Augustus; affording us, Catullus, Lucretius, Terence, Virgil, Horace, Tibullus, Propertius, Ovid, Phaedrus, Cesar, Cicero, Livy, Sallust, Strabo, Dionysius of Halicarnassus, Varro, and Vitruvius. This period, or at least a considerable portion of it, has been denominated by way of eminence the Augustan age, or the age of Augustus, which has been regarded as the age of genius, elegance and polite ness. The third age is that which followed the taking of Constantinople by Mahomet II., or that of the restoration of learning, under the popes Julius II. and Leo X., which produced the following eminent characters, &c. Ariosto, Tasso, Sanzio, Vida, Machiavel, Guicciardini, Davila, Erasmus, Paul Jovius, Michael Angelo, Raphael, Titian. The fourth age comprehends that of Louis XIV. and Queen Anne, when France was distinguished by Corneille, Racine, De Retz, Moliere, Boileau, Fontaine, Rousseau, Boileau, Piron, Bourdaloue, Pascal, Malebranche, Malfi, Braye, Bayle, Fontenelle, Vertot; and when England exhibitcd Dryden, Pope, Addison, Prior, Swift, Parnell, Arbuthnot, Congreve, Otway, Young, Rowe, Atterbury, Shaftsbury, Bolingbroke, Tilletson, Temple, Boyle, Locke, Newton, Clarke. Those who lived in the two first of these periods are generally distinguished by the appellation of the ancients, when a companion is instituted between the ancients and the moderns, including also under the first class one or two who lived in a more early age, as Homer in particular; and the moderns comprehend those who flourished in the two last of the ages above-mentioned, including also the eminent writers down to our own times. Voltaire's Age of Louis XIV. vol. i. p. 1, &c. Blair's Lectures on Rhetoric and Belles Lettres, vol. iii. p. 4.

There are other periods, which, on account of the extreme ignorance that prevailed, have been denominated ages of ignorance. Such are the 9th, 10th, and 11th centuries, in the modern history of Europe; when few kings and nobles, much less the common people, were able to write or read. These were ages of slavery, civil and religious, as well as ignorance.

Age of Medals. See Medal.

Age, in Horsemanship, forms a very important branch of knowledge, and confinés in being enabled to judge of the progress of a horse's years from correspondent alterations in his body. The teeth are usually examined for this purpose, as they exhibit in almost all horses the same changes in appearance and form at stated periods. This becomes necessary, as there are but few whose knowledge is sufficiently extensive to enable them to judge of the age by any other means; but where it can be done it is more useful than by this ordinary mode; for in this country, where horses are ridden very hard, and consequently early ruined, it is not uncommon to find a horse at five years old, feeble, debilitated, and exhibiting all the marks of old age, except in his mouth; on the contrary, when the animal falls into other hands, at 10 or 12 he has all the vigour of youth, and his teeth are the only parts that present an indication of age: it is therefore more useful to examine the general appearance of the animal, than to be guided altogether by the marks in the teeth; for, provided the horse has not been too early worked, nor too hard rode, and has no natural nor accidental defects, his nominal age should be but a secondary consideration. It is the custom of some excellent horsemens never to hunt their horses, till they are eight or nine years old, a period at which other horses are usually refuted as aged, and unfit for fatigue. Horfes, when aged, usually become hollow above the eyes, the hoofs become rugged, the under lip falls, and if grey, they become white. La Poffe, the younger, recapitulates the appearances of the teeth nearly in the following manner. The horse is foaled with six molar or grinding teeth in each jaw; the tenth or twelfth day after the two front nippers appear above and below, and in fourteen or fifteen days from this, the two intermediate are pushed out; the corner ones are not cut till three months after. At ten months the incive or nippers are on a level with each other, the front lefs than the middle, and these again lefs than the corners; they at this time have a very sensible cavity. At twelve months this cavity becomes smaller, and the animal appears with four molar teeth on each side, above and below, three of the temperance or colts, and one permanent or horse tooth; at eighteen the cavity in the nippers is filled up, and there are five grinders, two of the horse, and three temperancen; at two years, the first of the colts molar teeth in each jaw, above and below, are displaced. At two years and a half, or three years, the front nippers fall and give place to the permanent ones; at three and a half the middle nippers are likewise removed, at which period the second molar falls; at four years the horse is found with fix molar teeth, five of his new fet, and one of his half; at four years and a half the corner nippers of the colt fall and give place
place to the permanent set, and the last temporary grinder disappears. At five years old the tusks in the horse usually appear; at five and a half they are completely out, and the internal wall of the corner nippers, which before was incompletely formed, is now on a level with the tooth; at this period the incisors or nippers have all of them a cavity formed in the substance between the inner and outer wall, and it is the disappearance of this that marks the age. At six years those in the front nippers below are filled up, the tusks are likewise slightly blunted; at seven years the mark or cavity in the middle nippers is filled up, and the tusks a little more worn. At eight years old the corner nippers are likewise plain, and the tusks are round and shortened. At this period the horse is said to be aged, and to have lost his mark; but among good judges the teeth still exhibit sufficient indications. At nine the groove in the tusks is worn away nearly, and the nippers become rather rounded; at ten these appearances are still stronger; at twelve the tusks only exhibit a rounded stump, the nippers push forward, become yellow; and as the age advances, appear triangular and usually uneven.

Moniteur St. Bél, the late professor of the English Veterinary College, used to affirm, that after eight years the cavities in the anterior or upper incisive teeth filled up with equal regularity; thus from eight to ten the front ones were filled in, from ten to twelve the middle, and from twelve to fourteen; those of the central; but though some pains have been taken to ascertain this, it does not appear that the disappearance of the cavities in these teeth is attended with sufficient regularity to warrant confidence. It is a custom with dishonest dealers to draw the colts nippers, particularly the corner ones, by which means the permanent set which are underneath, immediately appear, and the horse is considered much older than he is; but if the other appearances detailed here are attended to, this may be readily detected. See Plate where the age from the appearance of the teeth is accurately represented. See also Teeth, and Anatomy of the Horse.

Age, in Hunting, is an article of consequence.—Deer, and other heads of game, have different denominations according to their age.

The age of a hart, &c. is chiefly judged of by the furniture of his head, which is annually enlarged both in height and thickness, from the second to the eighth year, and then continues nearly in equal beauty during the vigour of life. But, when he grows old, i.e. from eight years forward, his horns decline.

The first head, called, in fallow deer, broches; and, in red deer, pricks, does not come till the second year of their age: the next year, they bear four or six small branches; the fourth year, eight or ten; the fifth, ten or twelve; the sixth, fourteen or sixteen; the seventh year they bear their heads bended, branched and fumed, as much as ever they will be. The number of antlers or palms is by no means constant, when the animal is in the highest degree of vigour and perfection; for it varies according to the quantity of nourishment and repose the animal has enjoyed, and the size of the horns depends upon the fame cause. The huntsmen have several other marks, whereby to know an old hart without seeing him; as, the slit, entries, abatures, foils, fewmets, gate, and fraying pitts. See slot, &c.

The age of other heads that are chased, is estimated by their appearance; as a fox and a hare by their colour. In birds of the game kind, it is usually distinguished by the colour of the legs and wing-feathers.

Age of meat cattle, viz. the ox, cow, and bull, is known by their teeth and horns; but from long habit and the greater convenience, the horns are more usually fluided; but in that breed without horns, the teeth must be nearly the sole criterion. The ox has no upper incisive teeth, but a few days after calving eight nippers appear in the lower jaw, which remain till ten months, when the second dentition commences by the displacement of the two front teeth, to which succeed two permanent ones, larger but not so white.—At twelve months, the grinders are some of them changed; at 15 or 16 months, the incisors on each side of the front face is changed; at two years the third incisors on each side; and at three years the corners are replaced by the permanent, which complete the set. These are the first years of the animal’s life, even, long, and white; but in advanced age become yellow, or black, and uneven: between these periods all the grinders are changed.

The horns are likewise a permanent, and a temporary pair. The temporal pair are changed at the end of three years, and the permanent pair appear small, smooth, and terminated at the end with a small tubercle or button. In the following year this button grows from the head, and the line of growth is marked by a horny circle; the horns continue growing through life, and ever succeeding year adds a circle, so that the age may be readily gained by counting three years for the first button, and an additional one for every remaining circle.

Age of sheep is learned likewise from the horns in those which have them, in others from the teeth. M. Buffon says they have, in the third year, four broad teeth before, in the fourth year six broad teeth, and in their fifth year eight of the same kind: but our farmers reckon, that when a sheep is one shear, or year, it has two broad teeth before, when two shear, it will have four; when three shear, fix; and when four shear, or years, it will have eight. The age of the horned sheep is most conveniently learned by the horns, which shew themselves in the first year, soon after birth, and are not changed, but continue to protrude a ring or circle annually, as long as they live, so that as many circles as their horns present, so many years are they old. In goats, the teeth and horns follow the same laws; and therefore their age may be learned in the same way.

Age of the moon, in Astronomy, is understood of the number of days elapsed since the last conjunction, or new moon; called also her Quarter. The method for discovering her age is mentioned under the article Moon.

Age, in Law, is particularly understood of a certain state or time in life, wherein a person is qualified for certain offices of civil society, of which before, for want of years and discretion, he was incapable.

By the Roman law we find different ages ascertained for different purposes; as, confular age, or that wherein a person might regularly hold the confulsiphip, which was the 43rd year, so that he might sue for it in the 42d. Where it is to be observed, that it was not necessary either of those years should be expired, but only begun; besides, that men of extraordinary merit towards the republic, were in this matter exempt from the ordinary laws. Hence Corvinus was consul at 23 years. Seipio Emilianus at 36, and Pompey at 35; others broke through the laws by violence, as Caius Marius the younger, and Octavius Caesar, who procured themselves to be made consuls, before 20 years of age. Machiav. Dic. in Liv. lib. i. c. 60. p. 210.

Judiciary age, or that wherein a person was capable of sitting as judge, was not always the same; for by the Law
Lex Servius Glanis, none were allowed to be chosen under 30 years of age, or above 60. By some other laws that age seems to have been limited to 35, but reduced afterwards by Augustus to 30; though Plutarch supposes a mistake here in the text; and that, instead of 35 and 30, it ought to be read 25 and 20. Lex. Ant. tom. 1. Military age, or wherein the Romans were obliged to enter themselves in the army, was at 17 years; at 45 they might demand their dismission. Aquin. Lex. Milit. tom. 1.

This age was subject to considerable variation. The ancient practice, as Vegetius informs us, was to arm young men when they attained the age of puberty; and this subsisted before and under the first kings. Servius Tullius (about the year of Rome 178) fixed the period of military service from 17 to 46 years; those who had not reached this last term were called juniors, and those who had passed it seniors. Manlius, however, who saved the capitol, had served from the age of 16 years. Adriam commenced his military service at the age of 15 years; and influences occur, in the Roman history, of persons who were called forth to military service within the age of 50 years. But the age established by Servius Tullius was confirmed by Caius Gracchus, A. U. C. 652. The Gauls and Germans served from the age of puberty to extreme old age. The Perseans fixed the period of military service from 20 to 50 years. The Scythians and Laekedemonians extended it from the age of puberty to 60 years. The Athenians commenced at 18 years to guard the city and frontiers, and at 20 they engaged in foreign service, and continued to the age of 40 years. Aristotle fixed the military age at 17 years; (Polit. lib. viii.) and Plato in his Republic determines it from 20 to 60 years. Among the Lombards, the age of entry was between 18 and 19 years; among the Saxons at 13 years.

The age for holding offices in the city, as quaestor, edile, tribune of the people, &c. is not determined by the annual laws of Villius, but appears to have been the 22d. year. For it was necessary that the person who claimed any urban employment, had first served ten years without interruption in the army; commencing from the 17th year. Though some think the quaequatior might have been held at 25 years. Polyb. lib. vi. cap. 17. The pretorian age, or that wherein a person might solicit for the pretorship, was at 40; two years earlier than the age required for consul. But M. Brutus was pretor with Cassius, two years before his death; 2. 7. at the age of 35 years; and Dion (lib. p. 477) fixes this age at 30 years. Legitimen age, denotes the age of 25; so called, as some imagine, because youth were then by law allowed to take the direction of their affairs into their own hands. Briff. Select. Ant. ex Jur. Civ. lib. iii. c. 2. Diffination of age, statio venia, is a right which a person obtained from the prince, or sovereign, of setting aside a tutor or curator; and taking the administration of his affairs into his own hands, before the legitimate age. Calv. Lex. Jur. The adoptive age, called also plena substantia, requires the adopter to be eight years elder than the person adopted, that there may appear a probability of his being a natural child. Pitic. Lex. Ant. See Adoption.

By the common law, there are two principal ages in a man; at 14, he is at the age of discretion; at 21 years, at full age.

With respect to a woman, there were anciently fix ages observed; at seven years, her father might disfain the tenants of his manor for aid to marry her; for at those years she may consent to marriage. — At nine years old she is dowerable; for then, or within half a year after, she is said to be able promoveri dotes, & virum fuitissimum. At twelve years, she is able finally to ratify and confirm, or annul her former consent to matrimony; and, if proved to have sufficient discretion, may bequest her personal estate. At 14, she may take her lands into her own hands; and should be out of ward, if the were at this age at her ancestor's death; at this period she is at 21 years of legal discretion, and may choose a guardian. — At 16, she should be out of ward, though at the death of her ancestor she was under 14; the reason is, that she might make a husband able to perform knight's service; she may be executrix at 17. At 21 years, she may dispose of herself and alienate lands and tenements.

As for a man: the age of 12 years binds to appearance before the sheriff and coroner for inquiry after robberies, and impowers taking the oath of allegiance; 52 Hen. III. 14. At the age of 14, he may chuse his own guardian, and claim his lands held in foenge; though Bradton limits this to 15 years; with whom Glanville agrees. — At 14, a man may consent or disagree to marriage. — At that age, likewise, he may dispose of personal estate by will, if his discretion he actually proved, though not of lands until 21; at 14 also, persons may be witnesses, though in some cafes they have been admitted much younger. 2 Hawk. 434. Persons under 14 are not; in general, punishable for crimes; but they must answer for any trespas. 1 Inst. 237. — At 15, he ought to be sworn to the peace, and 24 Edw. I. flat. 3. — At 17, he may be an executor. — At the age of 21, a man was obliged to be a knight, if he had 20 pounds land per annum feu, or for term of life, anno 1 Edw. II. flat. 1. But this statute is repeated, 16 Car. 1. cap. 20. The same age also enables him to make contracts and manage his own estate; which, till that time, he cannot do with security to those who deal with him; so that at this age he is at his own disposal, and may claim his lands, goods, and chattels. Full age, in male or female, is 21 years; and this age is completed on the day preceding the anniversary of a person’s birth. (Salk. 44. 625, Lord Raym. 480.) who, till that time, is an infant, and is filed in law. Among the ancients Greeks and Romans women were never of age, but subject to perpetual guardianship, unless when married; and when that perpetual tutelage was away in process of time, we find, that, in females as well as males, full age was not till 25 years. By the constitution of different kingdoms, this period is fixed at different times. Scotland agrees with England in this point; but in Naples they are of full age at 18; in Holland at 25; and formerly in France, with regard to marriage, not till 30.

With regard to capital crimes, the age of 12 years was established, by the ancient Saxon laws, for the age of punishable discretion; and from thence till the offender was 14, it was stait pueri etiunti proxima, in which he might, or might not be guilty of a crime, according to his natural capacity or incapacity. Under 12 it was held, that he could not be guilty in will, neither after 14, could he be supposed innocent of any capital crime which he committed. But by the law, as it now stands, and has stood, at least ever since the time of Edw. III., the capacity of doing ill, or contracting guilt, is not so much estimated by age, as by the delinquent’s maturity of understanding, to that natural sapientia atatem. Under seven years of age, an infant cannot be guilty of felony; but at eight years old he may be guilty. Under 14, though an infant shall be prima facie adjudged, to doli incapax, yet, if it appear to the court and jury, that
that he was dolus capax, and could differ between good and evil, he may be convicted and suffer death. Thus, a girl of 13 has been burnt for killing her mistress; and one boy of ten, and another of nine years of age, who had killed their companions, have been sentenced to death, and the boy of ten years of age was actually hanged; because it appeared upon their trial, that the one hid himself, and the other hid the body of the person he had killed. An infamoc occurred in the 17th century of a boy eight years old, who was tried for firing two barns; and it appearing that he had malice and cunning, he was found guilty, condemned and hanged. In later times a boy, ten years old, was convicted on his own confession of murdering his benefic, and by the unanimous opinion of all the judges he was capitally punished. In such cases, however, the evidence of that malice, which is to supply age, ought to be clear and strong beyond all doubt and contradiction.

The age of 24 years enabled a man to enter into an order of religion, without consent of parents, anno 4 Hen. IV. cap. 17. At 24, he may be ordained a priest; and at 30, he may be a bishop. No person can be a member of parliament under the age of 21 years. Though the age of 21 is the full age of either man or woman, yet they may under that age contract for necessities suitable to their quality and proper instruction, and the contract shall bind them. An infant, who has an advowson, may present to the benefice when it becomes void. He may also purchase lands, though the purchase be incomplete; and when he is of age, he may agree or disaffee to it, without assigning any reason; and so may his heirs after him, if he should die before the completion of the agreement. In some cases, he may bind himself apprentice, by indenture, for seven years. 5 Eliz. c. 4;—43 Eliz. c. 2, and he may, by deed or will, appoint a guardian to his children, if he has any, 12 Car. II. c. 24. If either man or woman do any act before the time preferred by law, they may retract it when they come to the proper age; but if they do not, they are supposed to ratify it, and it shall be deemed valid. Thus, if a man marry before fourteen, or a woman before twelve, they may either agree or disaffee to the marriage, when they attain those respective ages. See Marriage. But the age of marriage has undergone divers modifications: in princes, it is allowed earlier than in private persons; in some countries than in others. In Persia, girls are married at nine, boys only at thirteen: in Holland, males are not allowed to marry without consent of parents or curators, before twenty-five; girls not before twenty: the Romans chose to marry their wives young, for the advantage of having them innocent and tractable. Others declaim against premature marriages. Some have pretended to limit the other extreme of marryable age to forty-five; but this too will be variable in different constitutions. We meet with instances of generation from 60 to 104, or even 121 years of age. Plott. Nat. Hist. Staff. chap. viii. § 3.

Various methods have been in use for determining this age. One sect of ancient Roman lawyers, called Casiliani, fixed it by the state of the body, which Jullianin and others after him, suppose to have been done by search, or inspection of the genital parts, at least in the male sex; for as to the female, it is pretended the twelfth year was the only guide, though others allude that the eruption of the menies served instead of it. The Proculiani, on the contrary, determined the puberty of males by the expiration of the fourteenth year. Jaukenius took a middle course, and made use of both methods.

The Canon or Ecclesiastical Law also denotes divers ages, viz. of baptism; of ordination to priesthood, and confirmation to episcopacy.

The Civil Law distinguished the age of minors, or those under 25 years old, into three stages: infansitia, from the birth to seven years of age; juvenilita, from seven to 14; and pauperitas, from fourteen upwards. The period of juvenilita, was again subdivided into etas infantilis proxima, from seven years to 10; and etas pauperitatis proxima, from 10 to 14 years. During the first stage of infancy, and the next half stage of childhood, infansitia proxima, they were not punishable for any crime. During the other half stage of childhood, approaching to puberty, from 10 to 14, they were indeed punishable, if found to be dolus capax, or capable of mischief; but with many mitigations, and not with the utmost rigour of the law. During the last stage (at the age of puberty, and upwards) minors were liable to be punished, as well capitally, as otherwise. Blacklt. Com. vol. i. 465, vol. iv. 22.

Age prior, attinent precati, a petition, or motion made in court, by one in his minority, having an action brought against him for lands coming to him by descent; requesting that the action may rest till he come to full age.—This the court, in most cases, ought to grant. But minors, as purchasers, shall not have it: nor intent of adultery, desert, or partition; though they may in debt. Hob. 342. D. Alr. 159.

It is otherwise in the Civil Laws, which obliges children in their minority to answer to their tutors or curators. See Parol Demurrer.

AGEA, in Geography, a town of Persia, in Persia, 35 leagues east of Itphah.
AGEE, a small island on the coast of the Red Sea, N. lat. 18° 5'; E. long. 38° 30', which gives name to a nation inhabiting the adjoining district of the country.

AGELASTA, in Antiquity, formed of a priv. and ἀγγαλεῖος, to laugh, and denoting forsworn, a famous stone in Attica, near the well called Callitrichos, upon which Ceres reeled, when she was fatigued in the search for her daughter. Here, according to Pausanias, (Attic. p. 93) they commenced the Eleusinian feasts.

AGELNOTH, or AEGELNOTH, Achelnotus, in Biography, succeeded Livingus, in the fee of Canterbury, in the reign of Canute the Great, A. D. 1020; he was the son of earl Agilmer, and obtained the appellation of good, for his acts of piety and benevolence. By his interced and influence with Canute, he restrained some of his excesses, and induced him to bestow large sums of money for the support of the foreign churches. In his way to Rome, for receiving his pall from pope Benedict VIII, he purchased at Pavia, with a large sum, a relic, which was the arm of St. Augustin, and transmitted it to England as a present to Leofric, earl of Coventry. By other more important services he is said to have given luftre to the Archiepiscopal fee. Upon Canute's death, he refused to crown his son Harold; alleging a promise which he made to the late king, that he would place the crown only upon one of the line of queen Emma. Neither threats nor promises could prevail with him to violate his engagement; and he laid the crown upon the altar, with an imprecation against those bishops who should dare to perform the ceremony. He died in the year 1038. His writings were "a Panegyric on the Blessed Virgin Mary,"—"a Letter to earl Leofric, concerning St. Augustin,"—and "Letters to several persons." Biog. Brit.

AGEM, in Botany, is a name given to the Persian liliac.

AGEMA, in the Ancient Military Art, a kind of soldiery, chiefly in the Macedonian armies.

The word is Greek, and literally denotes vehemence; to express the strength and eagerness of this corps; or it may be derived from ἄγειμι, to lead; because it consisted of elephants, horse and foot, which preceded the king, and formed, as it were, the royal guard.

Some will rather have agema to have denoted a certain number of picked men, answering to a legion among the Romans, which is authorized by a passage in Livy, (I. xiii. c. 51. e. 58. tom. v. p. 673. 682. Ed. Drakenb. Not.) Arran (De Exped. Alex. I. xvi. p. 287. Ed. Gronov.) on the contrary, speaks of the agema as a wing of horse; but the term is also applied to foot. This body of troops is also mentioned by Q. Curtius, (I. iv. c. 13. tom. i. p. 271. Ed. Drakenb.) and by Polyb. (I. v. p. 372. 408. Ed. Caub.) vid. Suidas in voc.

AGEMOGLANS, or AZEMOGLANS, children of tribute, raised every third year by the Grand Seignior, among the Chirilians whom he tolerates in his dominions.

The word, in its original, signifies a barbarian's child; that is, a child not a Turk.—It is compounded of two Arabic words, 1. ἀγήμ, agem, which among the Turks signifies as much as barbarous among the Greeks; the former people dividing the world into Arabs or Turks, and agem, as the latter divided it into Grecians and barbarians. 2. ἀγήμ, child.

The commissioners appointed for this levy take them by force even out of the houses of Chirilians; always claiming one in three, and pitching upon such as seem the handomest, and promise to be the most serviceable. They are immediately conveyed to Gallipoli, or Constantinople; where they are first circumcised, then instructed in the Mahometan faith, taught the Turkish language, and the exercises of war, till such time as they become of age to bear arms: and out of these the order of Janizaries is formed.

Such as are not judged proper for the army, they employ in the lawfult and most servile offices of the seraglio; as in the kitchen, stables, &c.

The agemoglans only differ from the ichlogians, as the former are bred up for the lower, and the latter referred for the higher offices of the empire. Their pay does not amount to more than seven aspers and a half, or threepence halfpenny, a day.

AGEN, in Geography, an ancient large and well inhabited, but ill built, city of France, the capital of Agenois, in the late province of Guienne, and new department of the Lot and Garonne, and the episcopal fee of the department of Averon. Its situation in a fertile country on the banks of the Garonne, is favourable for trade; but the indolence of its inhabitants deprives them in a degree of the advantage of it. Prunes are a considerable article of commerce; and the hemp which grows in the neighbourhood is manufactured into table linen, and sent from hence to Cadiz, and afterwards exported to the Spanish islands. Here are also manufacturies of camblets, ferges, and failcloth. The gates and old walls, which remain, mark the antiquity and extent of this town. The palace, which was formerly the castle of Montraval, and where the feissions are held, is situated without the walls of the old city; and there is another castle, called La Sagne, of which the ruins only exist. Agen is 108 miles south-east of Bourdeaux. N. lat. 44° 12' 7. E. long. 35° 40'.

AGENBAT, a town of Transylvania, ten miles north-east of Hermanstadt, N. lat. 46° 32'. E. long. 24° 50'.

AGENDA, in a general sense, denotes things to be done or performed, in consequence of a man's duty.

The word is Latin, formed from agere, to do; and signifies the agenda of a Christian, meaning the things to be practised, by way of contradistinction from credenda, or the things to be believed; the former imports the articles of obedience, the latter of faith.

Agenda is also used for a book containing notes or memorandums of things necessary to be done; in which fenfe agenda amounts to much the same with table-book, &c.

An anonymous French author has published the agenda of a man of the world, containing maxims, or rules, proper for the conduct of life. Tablettes de l'Homme de Commerce. 1715.

Agenda is more particularly used, among Ecclesiastical Writers, for the service or office of the church. We meet with agenda matutina & vesperina, morning and evening prayers; agenda diei, the office of the day, whether feast or fast day; agenda mortuum, called also simply agenda, the service for the dead.

Agenda is also applied to certain church-books, compiled by public authority, prescribing the order and manner to be observed by the ministers and people, in the principal ceremonies and devotions of the church.

In which fenfe agenda amounts to the same with what is otherwise called ritual, liturgy, acclamation, will, formulary, directory, &c.

AGENDICUM, in Ancient Geography, the chief city of the Senones beyond the Alps, thus written by Caesar, but called Ageodicum by Ptolemy, and by others Ageludicum. See Sens.

AGENFRIDA, in Ancient Customs, denotes own lord, or one who has the absolute property and dominion of a thing.
The word is also written agenfriga, and agentsfrie. It is derived from the Saxon agen, own, and fire, lord.

AGENHINE, in our Old Writers, signifies a gael that has lodged at an inn for three nights, after which time he is accounted one of the family; and if he offended the king's peace, his host was answerable for him. It is also written bogenhine and bogenhun.

AGENOIS, in Geography, a country of France, in the late province of Guinée, (now department of the Lot and Garonne) comprehending about 120 square leagues. It is a very fertile and healthy country, and was formerly inhabited by the Nitriobriges, mentioned by Cesar. It formed a part of the kingdom of Aquitania, and was afterwards possessed by the counts of Toulouse, and successively by the English and French. See AGEN.

AGENOR, in Fabulous History, was the son of Neptune and Libya, and the father of Cadmus. He reigned in Phoenicia and married Tholepaffa, by whom he had three sons, Cadmus, Phœnix and Cilix, and a daughter called Europa. Jupiter carried away the daughter, and Agenor ordered his three sons to seek for her, forbidding them to return to his court without her. Their search was fruitless, and they were banished, and settled in different countries.

AGENOR, in Natural History, a species of Papilio Euplex, with black wings, fanguineous at their base; the posterior having a white disc with black spots. It is found in China.

AGENORIA, formed of sofa, strong, in Mythology, the goddess of industry and courage, as Vacuna was of indolence.

AGENT, Agents, in Physics, that whereby a thing is done, or effected; or that which has a power whereby it acts on another; or by its action induces some change in it. The word agent is used promiscuously with efficient, and in contradistinction to patient.

The schools divide agents into natural and free.

Agents, natural or physical, are those immediately determined by the Author of nature, to produce one sort of effect; with an incapacity to produce the contrary.

Agents, natural, are again subdivided into universal, which are such as produce effects of the same kind and denomination with the agents themselves; and equivocal, whose effects are of a different kind, &c. from the agents.

The schoolmen reckon the following circumstances necessary to the being of an agent: viz. that it be contiguous to the object, distinct from it, have a power over it, a sphere of activity, and a proportion or rate of acting.

Agent, free or voluntary, is that which may equally do any thing, or its opposite; as acting not from any predetermination, but from choice.—Such is the mind supposed to be, which has a spontaneous power of choosing or refusing.

It is a celebrated question among philosophers and divines, whether man be a free, or a necessary agent? It may be thus stated: man is a necessary agent, if all his actions are so determined by the cause preceding each action, that no one past action could possibly not have come to pass, or have been otherwise than it was; nor one future action can possibly not come to pass, or be otherwise than it shall be. On the contrary, man is a free agent, if he be able at any time, in certain circumstances, to do different things; or, in other words, if he is not ever unavoidably determined in every point of time, by the circumstances he is in, to do that one thing he does, and not possibly to do any other.

Which of these two definitions agrees to man, is a question of fact to be determined by what we experience in ourselves, with regard to the operations of our own minds. See Liberty, Necessity, and Will.

Vol. i.

The term agent evidently implies a power of self-determination; and the epithet necessary, applied to agent, forms a solecism both in sense and language. Price's Review, &c. p. 315, &c.

Agent is more particularly used for the minister of a prince, or state, at another court.

In which sense agents are commonly reputed a species of public ministers, or Ambassadors: but they differ essentially, as agents are not invested with any representative character, although entrusted with the affairs and interests of their princes. See Envoy.

Agent is also used for a person intrusted with the management of affairs, either of a corporation, or private person. In which sense the word coincides with deputy, procurator, syndic,factor, &c.

Among the officers in the Exchequer, there are four agents for taxes.

Agents of bank and exchange, are public officers, established in the trading cities of France, to negotiate matters between merchants relating to bills of exchange, and the buying and selling of goods: the same with those who, among us, are called Exchange-brokers.

Agents of the Victualling Office, are officers under the commissioners, appointed to buy and contract for provisions, &c. Some of these are settled in the ports, where they have much the same office and authority as the commissioners in London.

Agent-vitualler, is used in the same sense.

Agent and patient, in Common Law, is where a person does, or gives, something to himself; so that he is at the same time both the doer and giver, and the receiver or party it is done to.—Such is a woman, when the occasion itself, with part of her husband's inheritance.

Agent, in Chemistry. According to the ancient chemists, substances were composed of active and passive principles; the latter of which received impressions from and were modified by the former, without exerting any reciprocal action. Spirit, oil and salt, were considered as the active, and earth and water, as the passive principles. This distinction evidently arose from the phenomena of solution, and the apparent energy which acids and other fluids exhibit in their combination with metals and solids in general. It is now however universally allowed, and indeed necessarily follows from the doctrine of affinity, that whenever two substances combine together, it is in consequence of a mutual attraction, which belongs as much to one element as to the other of a compound; this definition therefore of chemical agent is no longer adhered to, and though we still continue to use the expression of one body having a powerful action on another, it is by no means intended to deny the equal reciprocity of chemical attraction.

The general term agent signifies, therefore, in strictness, any substance capable of producing chemical action; and when, in explaining a process, the quality of agent is attributed to a body, it is only used as a designation of the substance whose presence determines the combination or decomposition. In which sense it is sometimes attributed to mensura, or such bodies as in mixture have the greatest share of activity and motion; and it is sometimes also used for what we more usually call instrument. Thus fire, water, air, earth, and mensura, are chemical agents.

That internal agent in man, whereby all the vital motions necessary to the preservation and restoration of the body are managed, is by some called nature; by others archetypum, calidum invatum, animal soul, vital spirit, or principle, &c.

AGENTE, in Myth., a term which, in the infancy of counterpart, was given, by the Italians, to the note of percussion, that
that occasions and accompanies a prepared disorder upon a
binding note; which note was termed the patient.

AGM

In the preceding example, C is the patient, E prepares the
difficult, D is the moving note or agent, and B its resolu-
tion.

AGENTES in rebus, one of the ranks of officers, in the
court of the Confiatipolitan emperors, whose business was
to collect and convey the corn, both for the army and house-
hold; carry letters and messages from court to all parts of
the empire; regulate couriers, and their vehicles; to
make frequent journeys and expeditions through the pro-
vinces; inspect any motions, disturbances, machinations
affecting that way, and give early notice thereof to the

The agents in rebus, are by some made synonymous with
our post-masters, but their function was of great extent.
They correspond to what the Greeks call τραπεζας, and
the Latinus serviator.

There were divers orders or degrees of agents in rebus,
as tribuni, primicrii, senatores, ducesmarii, biarchi, circefrizes,
equeites, tyrannet, &c. through all which they rose gradatim.
Their chief was denominated princeps, which was a po1t
of great dignity, being reckoned on a level with that of pro-
consul.

The princeps agens in rebus resided at Constantinople,
others of them were settled in every part of the empire; and
are also said to have served as interpreters.

AGEOMETRIA, a defect in point of geometry, or
a deviation from the strict principles and conclusions of
that science.

This is otherwise called ageometria.

Some have complained of the ageometria of the Scrip-
tures, in respect of the proportions of the brown sea, ark,
&c.

AGER setigalis privatus, in Roman Antiquity, that whose
property was granted to private persons on the reserve of
a certain rent, or tribute.

AGER setigalis publicus, that whose property was referred to
the public, and being let out to farm, the rents or profits
accurred to the public treasury.

Ager is also used for a certain portion or measure of
land, antiently allowed in the division of grounds to each
citizen.

In the early days of the Roman state, the ager was only
two jugera, amounting to 14 English acre. After the ex-
pulsion of the kings, seven jugera were allowed a plebeian.

Under the tribunate of C. Licinius Stolo, in the year
of Rome 379, a law was made to limit citates to 500 jugera, or
350 English acres, and to decree the distribution of the sur-
plus in the possession of any individual amongst those
who had no land. Under Julius Cesar another agrarian law
was published, by which those who enlarged their plantation
of land were to pay 50 acres to the public.

Ager is also used in Middle Age Writers, for what we
now call an acre.

AGER, or AGRER, in Geography, a small town of Ca-
tabala, in Spain, near the river Segura, north of Lerida,
and 25 leagues west of Barcelona. N. lat. 41° 55'. E.
long. 0° 34'.

Ager, a river of Aufrria, which runs into the Traun,
about a league north from Schwannauft.

AGE

Ager is also a district in a hex of Aggerheus, in
Norway, called Agerheus-Herrad.

AGEERIUS. See Piceriun.

AGERATUM, compounded of the privative a and
gea, old age, and denoting never-old or ever-green, in Botany,
a genus of plants, of the fyngea honeysacca equals class and
order, of the natural order of compoeta diffusiflora, and corny-
choose of Juffieu; the characters of which are, that the com-
mon calyx is oblong, with many, lanceolate, sub-leafed leaves:
the compound corolla is uniform, corollis hermaphrodite, tubu-
lus, numerous, equal, scarcely longer than the calyx
proper monopetalous, fringed, shaped, border quadrifid and
spreading; the flammae are capillary filiforme, very short,
the anthera cylinw and tubular; the piliferum is an oblong
bome, style filiform, of the length of the flamma, the frigida
are two, very slender and erect; no pericarpium, calyx un-
changed; the seed solitary, oblong, angular, crowned with a
chaffy, five-leaved, upright awned calycell; the receptacle
naked, convex, and very small. It differs from Eupatorium
in the crown of the seeds; and from Bids in the naked-
ness of the receptacle. Martyn enumerates two species,
—1. A. corymbosus, hairy ageratum, with ovate leaves
and hairy firm, which flowers in July and August, and is a
native of Africa, the islands of America, and the ilee
of Tana, in the South Seas. This species is propagated by
owing the seeds on a hot bed in the Spring; and when the
plants are strong enough to bear removing, transplanting
them into another moderate hot-bed; where they should be
watered, and shaded till they have taken root. In June they
should be inured to the open air, and transplanted towards
the middle of the month into the open ground, where they
will continue flowering from July till the frosts in Autumn
destroy them. The seeds ripen in September and October.
2. A. ciliare, with leaves ovate, crenate, oblong, and smooth
stem, which is a native of the East Indies, and of China,
neat Canton. The A. Haybroucher of Miller, found wild at
Las Vega Cruz, bj Dr. Houltou, does not differ from the
first sort. In Gmelin's edition of Linnaeus, we have three
species, viz. A. Guianensis, with cordate, serrated, and
petiolated leaves. See Achillea, Athenasia, Conyzza,
Erinus, Eupatorium and Senecio.

AGERATUM, in the Materia Medica, is a species of
Achillea, with numerous, small, oblong, narrow leaves, called
in English feet milfoil and maustin. It bears a near resen-
blance to the comfrey, and is denominated billiflora lineata,
as that is called billiflora com. It is also called eupatorium
millier, on account of its supposed virtue in disperse and ob-
structions of the liver. It is a native of Italy, the South
of France, and of Spain; and is found by the road sides,
where it flowers from August till October. As it is seldom
used with us for medicinal purposes, it is not cultivated in
the gardens for sale. There are two varieties of it, one
having longer and more compact corollas, the other with
broader leaves and smaller flowers. It is sweet to the snell,
and of a bitter taste, and aromatic. Linnaeus reckons it
obsolete and superfluous. Allione, on the contrary, thinks
it an efficacious plant, and recommends it in all disorders
arising from a debility of the nerves. Dr. Lewis says of
this and the comfrey, that these herbs have been used as
mild corromrots and aperients, in weaknesses of the stomach,
obstructions of the vennora, and rheumatic dispositions; and
though at present disregarded, they promise, from their
femile qualities, to be medicines of some utility. Riverius
recommends ageratum, on account of its astringent quality,
as an antidote to incontinence of urine; and Gellner has dis-
covered a brilk purgative quality in its roots.

AGERATUS lapis, in the Materia Medica of the An-
cients.
AGE

Ant, the name of a flute mentioned by Galen and other writers; and said to be of the nature of the Phrygian flute, but more astringent; and as that was used in dying, this was in dressing of leather. We have no account of its external appearance, but probably it contained vitriol, and perhaps alum.

The great use of vitriol or copperas in the management of leather is well known; and the flutes which contain it, or pyrites, are very where common. The method used also in the preparation of the Phrygian Lapis, was the wetting and slightly calcining it, must be very proper to make the vitriol contained in this appear, and exert itself in the working with it. This flute is used by shoemakers to polish women’s shoes.

AGERIUM. See Agistment.

AGERSOE, in Geography, a small island of Denmark, in the Greater Belt; two leagues south of Corsoer.

AGES, signifies the palm or hollow of the hand.

AGESANDER, in Biography, one of the three sculptors, who jointly executed the famous antique group of Laocoön, was born at Rhodes, and flourished about the 86th Olympiad. His name stands first upon the plinth of the group.

AGESILAUS, in Ancient History, one of the most illustrious kings of Sparta, succeeded his brother Agis against the competition of his nephew Leotychides, to whom by the laws the crown would have regularly descended. As he was a younger son of Archidamus II. he could have no view to the kingdom; and he was therefore educated in all the rigour of the Spartan discipline, and in the habits of self-denial, labour and obedience, from which those who were heirs to the throne were exempted. He thus acquired a degree of popularity, which, notwithstanding his low stature, and his being lame in one leg, secured his succession; more especially as he was patronized and supported by Lyfander, whose influence in the state was very considerable, and his rival was suspected of being the son of Alcibiades, who was said to have corrupted the queen of Agis, by a present of a thousand drachmas. His disposition and manners, which combined resolution and activity, with condensation and gentleness, more than counterbalanced his natural defects; and though the oracle had warned the Spartans against a lame reign, Lyfander contrived to interpret the warning as a caution against the illegitimacy of Leotychides, and thus to facilitate the establishment of Agesilaus. By his subsequent conduct he ingratiated himself with perfons of all ranks and parties to such a degree, that the Ephors are said to have checked his ambition by imposing a fine upon him, because he attached the affections of the citizens to himself alone, and thus alienated them from the republic to which they rightfully belonged. Such, however, were the attention and deference which he manifested towards the Ephors and the senate, that he obtained their entire confidence; and his authority was superior to that of any other king of Sparta. Soon after he ascended the throne, ante Cbril. 396, the king of Persia fitted out a powerful fleet, in order to deprive the Lacedemonians of their empire at sea. Agesilaus, at the instigation of Lyfander, was appointed general of the forces that were destined to an expedition against Artaxerxes; and he accepted the office on condition, that a council of 30 Spartan commanders should accompany him, and that Lyfander should be the chief of this council. During his delay at Aulis, he had a quarrel with the Boeotians about a fisher, which occasioned a war, that terminated in the subversion of the Spartan dominion. When he arrived at Ephesus, a message was addressed to him by Tissaphernes, the lieutenant of the Persian king, demanding his reason for coming into Asia with an armed force: to which he replied, that his purpose was to aid the Greeks, who inhabited there, in recovering their ancient liberty. Tissaphernes, in order to gain time, promised in behalf of his master to grant liberty to the Greek cities of Asia. Agesilaus acquiesced, and a truce was settled between them. In the mean while the Persian general, regardless of his oath, took advantage of the delay, assembled troops and prepared for war. Agesilaus, though apprized of this treachery, adhered to his engagement; and this religious observance of a solemn treaty gained him, as Xenophon informs us, the universal esteem of the cities, whilst Tissaphernes, by a different conduct, entirely lost their favour. This interval afforded the Lacedemonian general an opportunity for acquiring an accurate knowledge of the state of the country and of the disposition of the inhabitants. In the course of his enquiry he found that Lyfander arrogated a degree of power, which encroached on his authority and obstructed his influence. Agesilaus did not dissemble his difficulty. Having given the most considerable commands and built governments to private officers, he appointed Lyfander commissary of the stores and distributer of provisions, and for the purpose of further mortifying him and deriding the Ionians, he directed them “to consult their matter-butcher.” Lyfander, afterwards returning to Greece, projected a variety of schemes for overturning the constitution of Sparta, but his death prevented their accomplishment.

When Tissaphernes had collected his forces, he commanded Agesilaus to retire from Asia, and upon his refusal declared war against him. The subordinate officers of the Spartan general were alarmed, but Agesilaus himself was composed and cheerful; and having transmitted his thanks to Tissaphernes “for having made the Gods, by his perjury, the enemies of Persia, and the friends of Greece,” he made a feint of marching his army into Caria, the residence of the Persian lieutenant, but actually overran Phrygia, where he took many towns and amassed immense treasures, which he distributed among his officers and soldiers. Having wintered at Ephesus, he devoted the ensuing spring to the exercise and discipline of his army, which he encouraged by the distribution of prizes; and at the same time he inspired his soldiers with a contempt of their enemies, by stripping the prisoners and exposing them and their garments to fate. The latter were eagerly purchased; but the prisoners themselves were so delicate and feeble, that they were deemed of no service or value: “see there,” says Agesilaus to his soldiers, “the perils against whom you fight,” and pointing to their rich spoils, “behold there for what you fight.” As the season advanced, the Lacedemonian army marched into Lydia, defeated the Persians near Sardis, and ravaged the whole country. This success terminated in the death of Tissaphernes; his command devolved on Tithraustes, who attempted to conciliate Agesilaus by rich presents, and to induce him to withdraw his troops and to return into Greece by the promise of liberty to the cities of Asia, upon their payment of the customary tribute. The Spartan king, however, deferred the proposed accommodation till he had submitted it to the consideration of the state, and received orders for this purpose. In the mean while he marched into Phrygia, which was the province of Pharnabazes, and the expence of his expedition thither was defrayed by Tithraustes. During his progress he received new powers from home, by which he was constituted sole commander both by sea and land; and an honour which Sparta had never before conferred on any of its generals. From Phrygia, where he amassed large sums of money, he advanced as far as Paphlagonia, and formed an alliance with Cotys, the prince of that country.
During the two years of Ageillus's command in Asia, he exhibited all the talents of a warrior and statesman, and all the virtues of a Lacedemonian. The remote provinces trembled at his name, and refused with the fame of his wisdom, disinterestedness, moderation, intrepid valour in the most pressing dangers, and invincible patience and firmness in enduring toil and fatigue. Such was the respect which his conduct and character commanded, that deputies were sent from all parts in order to form alliances with him; and his army increased continually by the accession of Barbarians that enlisted under his standard. Whil'st he allowed his soldiery the advantage of pillage, he himself was not chargeable with any act of cruelty or injustice. His prudence and authority were so much esteemed, that he restored order and tranquillity to all the cities of Asia, and reinstated them in the possession of their liberties, not only without shedding of blood, but without even harrying a single person. Ambitions of extending the glory of his country, and of Greece in general, he had formed the design of attacking the king of Persia in the heart of his dominions, and of fo occupying his time and attention, that he might have no leisure for directing his hostile views and schemes to distant provinces. But before he could execute his purpose, he was recalled by the Ephori to the defence of his own country. As soon as he received the order for returning, he instantly obeyed; alleging, that he received the command not for himself, but for his country and its allies. "I know," says he, "that a general does not deceive, or perplex, that name really, but as he submits to the laws and the Ephori, and obeys the magistrates." On his departure, however, he said, "that 30,000 of the king's archers drove him out of Asia;" alluding in these words to a species of Persian coin, which had on one side the figure of an archer, 30,000 of which pieces of money had been dispersed in Greece to corrupt the orators and persons of greater power in the cities.

Ageillus, when he quitted Asia, was accompanied by Xenophon; and at Ephesus he committed half the gold he had brought with him from his expedition into Persia with Cyrus to the custody of Megabyzus, the guardian of Diana's temple, with an order, in case of his death, to confide it to the goddess. On his return through Thrace, he only demanded, "whether he should pass as a friend or an enemy of the Persians," and when the king of Macedon replied, "that he would consider of it," "Let him consider," says Ageillus, "in the mean time we will march." Before he arrived at Sparta, he received an order from the Ephori to invade Brutia, with which he complied, though the measure was not such as he approved. On the plain of Cheronea, a very severe engagement took place, in which Ageillus received several wounds, and his life was exposed to great danger. Some of the enemy had taken refuge in a temple of Minerva, near the field of battle; and these Ageillus ordered to be dismissed, and appointed a guard to escort them in safety wherever they chose to go. After this battle he returned to Sparta, and was received with admiration and joy. Unceremoniously by the customs and manners of foreign countries, as other generals had been, he made no alteration in his diet, furniture, or equipage. His enterprise against Corinth did not succeed; but his expedition against the Acanthians compelled them to sue for peace. In the year before Christ, 387, the sovereignty of Greece was guaranteed to Sparta by the peace with the Persian king, negotiated by Anticleus, on the dishonourable condition of abandoning the Greek cities of Asia to the Persians. After this event, the Spartans treated some of the smaller states in a tyrannical manner, and unjustly feized the citadel of Thbes, in which aet Ageillus disgracefully concurred. Sparta was thus involved in a new war with Athens, in which the Thebans, under the illustrious Epaminondas, became formidable to their oppressors; and it was alleged against Ageillus, that he had taught them the art of war, by his expeditions against them, so that they were able to encounter the Lacedemonians in the field, as was the case in the battle of Leuctra, when Archidamus, the son of Ageillus, and Cleombrotus, the other Spartan king, were defeated with great loss, and Cleombrotus left dead on the spot. In consequence of this disaster, Ageillus was invested with a dictatoral power, for the purpose of saving the fugitives from the severity of the Spartan laws, without prejudice to the state; and on this occasion he decreed—"let the laws sleep to-day, but to-morrow let them reanimate their full vigour." After this battle, Ageillus exerted himself in levying a new army, in defending Sparta from the hostile attacks of Epaminondas, and in suppressing a conspiracy which took place among the Spartans themselves. In the year before Christ 362, some new commotions broke out in Peloponnesus; and Ageillus was defeated, at the head of the Spartans and their allies, in the battle of Mantinea, by Epaminondas, who died in the moment of victory. When a general peace was established, the Lacedemonians were excepted, by the culpable obstinacy of Ageillus, who refused to concur, because the Methenians were comprehended in it as a separate state.

Ageillus, in the decline of life, accepted the command of a band of mercenary troops in the service of Tachos, who aspired to the throne of Egypt. This commissioii reflected no great honour on the character of this illustrious Spartan, who, at the age of 80 years, degraded himself by receiving the pay of an Egyptian, and serving a barbarian, who had revolted against his master. The Egyptians refrained in great multitudes to see a man, whose name and character had been so long and so generally applauded; but connecting splendour and magnificence with their ideas, they were disappointed when they saw an old man, of a mean aspect and low stature; they applied to him the figure of the mountain in labour, and could scarce refrain from laughter and ridicule. His conduct, however, soon produced a change of opinion.
opinion. When he found that Tachos did not assign him the command of the whole army, but restricted his authority merely to the foreign troops, he was surprized and mortified; and he was the more incensed by the contempt with which his counsell was received, and by various instances of neglect which he experienced. Thus provoked, he joined those Egyptians who took part with Nectanebos, the other competitor for the crown, and assembled them in establishing the rival of Tachos on the throne. Ageclus pleaded public utility as an apology for his verdictable conduct in this instance: Xenophon attempts to palliate it; but Plutarch charges it with the infamy of perfidy and treachery.

The following winter, in the year before Christ 301, he embarked to Lacedemon; but was driven by a storm upon the coast of Africa, into a place called the Port of Menelaus; where he fell sick and died, at the age of 84 years, after a reign of 41 years, during 30 of which he maintained the most distinguished reputation. His latter years, after the battle of Leuctra, were honourable; and Xenophon, in his eulogium of this prince, has been thought too much to exaggarate his virtues, and to extenuate his faults. His body was carried to Sparta, and embalmed with wax instead of honey, which was usually employed for this purpose. His son Archidamus succeeded to the throne, which continued in his house to Agis, who was the fifth king of the line of Ageclus. His life and actions have been recorded, not only by Xenophon, his intimate friend and panegyrist, but by Diodorus Siculus, Plutarch, and Nepos. Many anecdotes are related concerning him, which sufficiently mark his character, and evince the high estimation in which he was held by his contemporaries. Hearing the great king, an appellation affirmed by the kings of Perlia, spoken of in terms of extraordinary commendation; he is reported to have said—"I cannot conceive wherein he is greater than I, unless he be more just." His regard to justice, however, was sometimes sacrificed to his attachment to his country, and to the bias of private friendship and affection. In recommending a friend to a judge, he says—"If Nicias be not guilty, acquit him for his innocence; if he be, acquit him for my sake; but, however it be, acquit him." His contempt of unmerited praise, and his superiority to ostentation and vain-glory were prominent features in his character. Accordingly, he would never permit, during his life, that his picture should be drawn; and at his death, he expressly forbid any image to be made of him, either in colours or relief. "Let my actions," he would say, "if deferving, be my monument."


**AGESILAUS**, in Mythology, the surname of Pluto, which was given to him, because he conducted all mankind into his empire; παῖς τοῦ ἄγεις τοῦ ἡλίου.

**AGESINATES**, in Ancient Geography, a people of Gaul, placed by M. d'Anville in the territory of the Pictones or Prétai.

**AGESSSUS**, a town of Thrace, called by Pliny (l. iii. c. 11.) Aegatus, and by Livy, (l. xlv. c. 7.) Aegatus, but assigned to Macedonia in the confines of Thrace. Stephan. Byz. Hardouin mentions imperial Greek medals belonging to this city.

**AGETORIA**, in Antiquity, faults mentioned by Heby-chius, which were probably instituted in honour of Apollo, and the same that were observed by the Lacedemonians, under the appellation of Karnelia. Venus was also honoured at these faults, as we may conclude from the name of αὐτόπε, which was given in the island of Cyprus to the priest of this goddess.

**AGESUSTIA, or AGHEUSTIA**, formed of άπριτ, and αἱστήρια, in Medicine, a defect in the sense of taste. This disease may arise from an organic affection, or an atonic state, of the organs. The taste may be diminished or impaired by hus, mucus, ἀπήθηρις, ulcers, &c. on the tongue; or by a diseased secretion of saliva. It may be entirely abolished by injuries done to the nerves of the tongue and palate.

This constitutes one of the general diseases in the arrangement of Dr. Cullen; and he divides it into A. org.registry, arising from a disease in the membrane of the tongue, keeping off from the nerves those substances which ought to produce taste; and A. atonic, which occurs without any evident disease of the tongue.

**Cure.**—When the taste is diminished or deprived by fur or mucus, as usually happens in Fevers, it is rarely possible to restore it by any other means than those which subdue the fever. The tongue, teeth, and saucce, should be washed with detergent gargles, of which the aqua ammonize, or common sal volatile, properly diluted with water, is the most effectual in dissolving the mucus. The tongue may be gently scraped when moist, and the teeth brushed. When the taste is deprived by a diseased secretion of saliva, the cure depends on restoring the natural secretion. If bile, or any sarabba in the stomat, disorder the natural taste, recourse must be had to emetics or the proper correctors of the offending cause; acidity is removed by alkalies, chalk, magnesia, and even by other acids.

**AGGADA**, in Hebrew, an ingenious tale or story; of which kind there are many in the Talmud.

There are several books extant among the Jews under this title. R. San Israel Ben Juda has published Novellae Aggarum, or new explanations of the stories and relations in the Talmud, discovering the hidden meanings thereof.

**AGGAS, ROBERT**, in Biography, commonly called Augustus, a good English landscape painter, who was also skilled in architecture, lived in the reign of Charles II. He painted both in oil and temper, but few of his pictures are extant. The belt is a landscape presented to the company of paper-hangers, and preferred in their hall. He died in London, in 1679, at the age of about 60 years. Biog. Dict.

**AGGAS, RALPH**, an engraver, published the plan of Oxford and Cambridge, in 1578, and a map of Dunwich in 1589. He engraved, on wooden blocks, the plan of London, afterwards engraved on copper by Vertue. Strutt.

**AGGER, in Ancient Writers**, denotes the middle part of a military road, raised into a ridge, with a gentle slope on either side, to make a drain for the water, and keep the way dry. The appellation is also used for the whole road, or military way.

Where high-ways were to be made in low grounds, as between two hills, the Romans used to raise them above the adjacent land, so as to make them on a level with the hills. These banks they called aggera. Bergier mentions several in the Gallia Belgica, which were thus raised, ten, fifteen, or twenty feet above ground, and five or six leagues long.

They are sometimes also called aggera calceata, and now generally known by the name chausses, or causeways.

**AGGER** also denotes a work of fortification, used both for the
the defence and attack of towns, camps, &c. In which sense it is the same with what was otherwise called 
walum, and in later times aggelum, and among the moderns love; sometimes cavXlers, terraces, &c.

The agger was usually a bank, or elevation of earth, or other matter, bound and supported with timber; having sometimes turrets on the top, wherein the workmen, engineers, and soldiers were placed. It was also accompanied with a ditch, which served as its chief defence.

The usual materials of which it was made, were earth, boughs, faloons, &c., and even trunks of trees, ropes, &c. variously crossed, and interwoven somewhat in the figure of flowers; whence they were called flettati axen. See Latin in i. 155, 501. Silius Ital. iii. 109. Where these were wanting, stones, bricks, tiles, supplied the office: on some occasions, arms, utensils, pack-saddles, were thrown in to fill up. What is more, we read of aggers formed of the carecases of the slain; sometimes of dead bones mixed with lime, and even with the heads of slaughtered citizens. For want of due binding, or solid materials, aggers have sometimes tumbled down, with infinite mischief to the men.

The besiegers used to carry on a work of this kind nearer and nearer towards the place, till at length they even reached the wall. The methods taken, on the other side, to defeat them, were by fire, especially if the agger were of wood; by fapping and undermining, if of earth: and, in some cases, by erecting a counter agger. Thus the inhabitants of Gaza defended themselves against Alexander. Q. Curt. i. 4. b. xxi.

The height of the agger was frequently equal to that of the wall of the place. Caesar tells us of one he made, which was 30 feet high, and 320 feet broad. Besides the use of aggers before towns, the generals used to fortify their camps with such works; for want of this precaution divers armies have been surprized and ruined.

There were wall aggers made in towns and places on the sea-side, fortified with towers, cails, &c. Those made by Cæsar and Pompey at Brandenburg, are famous. Sometimes aggers were even built across arms of the sea, lakes, and marshes, as was done by Alexander before Tyre, and by M. Antony and Callias.

The wall of Severus, in the north of England, may be considered as a grand agger, to which belong several lesser ones. Besides the principal agger or wallum, on the brink of the ditch, Mr. Horley describes another agger on the fourth side of the former, about five paces distant from it, which he calls the fourth agger; and another larger agger on the north side of the ditch, called the north agger. This latter he conjectures to have served as a military way; the former, probably, was made for an inner defence, in case the enemy should beat them from any part of the principal wallum, or to protect the soldiers against any sudden attack from the provincial Britons.

Ager Tarquinii. Tarquin's agger, was a famous fence built by Tarquinii Superbus, on the east side of Rome, to stop the incursions of the Latins, and other enemies, whereby the city might be inflected. See Plin. iii. 5. Criminals were thrown down from the top of this rampart. Juv. Sat. vi. 288. Sueton in Cal. c. 27. n. 3.

Ager is also used for the earth dug out of a trench, and thrown upon the brink of it. In which sense, the chevalier Folard thinks the word to be understood, when used in the plural number, since we can hardly suppose they would raise a number of cavXlers, or terraces.

Ager is also used for a bank, or wall, erected against the sea, or some great river, to confine or keep it within bounds.

In which sense, agger amounts to the same with what the ancients call tumulus and murus; the Dutch, dyfl; we, dun, sea-wall.

Ager also denotes a heap of earth, raised over the graves of the ancients.

In which sense, it amounts to the same with tumulus; and is sometimes also called aggelum.

Ager, in Geography, a river of the circle of Westphalia, which waters the country of Mark and the duchy of Berg, and falls into the Rhine.

Aggerhuus, or Christiana, the largest diocese or general government in the fourth part of Norway; and the richest, as well as most considerable, in the whole kingdom. It was formerly called Hammenfib, and afterwards known by the name of Opfelle. Aggerhuus is also the name of a fortress in this diocese, on the west side of the bay, near which lies the city of Christiana. It is not known when it was built. It has been repeatedly besieged by the Swedes, viz. in 1310, in 1567, and in 1717, by Charles XII. without success. The governor of Aggerhuus is the chief governor of Norway: he presides in the high court of justice, called Overhofet, which judges in the last resort, all civil causes above a certain value. In all causes surpassing that value, an appeal lies to the supreme court at Hamburg. N. lat. 53° 6'. E. long. 10° 20'. The oldest church in this diocese, said to have been built about 700 years ago, and called Agger, is situated about a quarter of a mile north of the castle. The population of this diocese is estimated at 215,043 persons.

Aggers-Herred, a field of Aggerhuus, which comprises three districts, with as many courts of judicature, viz. Aberby, East and West Barums, and Ager. Christiana is situated in this district.

Aggerout, or Agerouf, supposed to be the ancient Arsinob, is situated at the extremity of the Red Sea, about two leagues from the port of Suez. Here terminated the famous canal, begun by Necos and finished by Ptolemy Philadelphus, for joining the Nile to the Red Sea. Between the time of Ptolemy and our days, the Red Sea has retired two leagues, which is the distance of Agerouf from Suez.

AGG, a river of Persia, which runs into the Aras, near Chambé, in the province of Aderbdtian.

AGGILE, a town of Prusia; 13 leagues east-north-east of Königsberg.

Aggilestone, otherwise called Stone-Barrow, and vulgarly the Devil's Night Cap, is a remarkable monument of antiquity situated in the north-east extremity of the isle of Purbeck. Its dimensions are 60 feet in circumference at the bottom, in the middle 80, and at or near the top 90; and it is computed to contain 407 tons of stone. The name seems to have been derived from the Saxon hale, or hale, hale, and flan, flan, which expresses its ancient use; as it was probably a rock idol in the British age.

Agglutinants, in Pharmacy, a species of strengthening medicines, whose office and effect are to adhere to the solid parts of the body, and thus recruit and supply the place of what is worn off, and waited, in the animal actions.

Agglutinants are most of them of the glutinous kind, or such as easily form themselves into jellies, and gummy confidences; whence the name agglutinans, which is formed of ad, to, and glutin, glue.

For the operation and use of agglutinants, see Strengtheners.

The principal simples which come under this class, found in the shops, are, stilling, olbanum, gum arabic, dragon's blood,
blood, caffia, fago, vermicelli, pulse, comfrey, plantain, &c. If the term, says Dr. Cullen, has any foundation at all, it must have the same meaning with that of nutrient; and there is no propriety in using a doubtful theoretical term. Nor is the term less improperly applied to medicines that are suited to cement and reunite parts preternaturally separated, and therefore employed in wounds and ulcers. British surgeons neither know nor employ any such medicines: the bines is the work of nature; and their concern is to remove impediments to its operation. Cullen's Mat. Med. vol. i. 163.

**AGGLUTINATION PIlorum**, a healing or reducing the hairs of the eyelids, that grow inwards, to their natural order and situation. This may be done by mastic applied with a probe, which bends the hairs back into their proper order. Bittmen, the flame of a fuel taken off with a needle, the juice of hawks-weed, the liquor of agglutinants, or ammonio, produce the same effect.

**AGGLUTINATION**, literally denotes the act of joining or cementing two bodies together, by means of a proper glue or cement.

In Medicine, the term is peculiarly used for the apposition or adhesion of a new substanee, or for giving a greater confluence to the animal fluids, to fit them the more for nourishment.

Some assign a difference between agglutination and affination: in that species of leprosy called *ammoniac*, there is an adhesion, or agglutination of the nutrient, but no affination. In the amnios formy, or on the contrary, there is an affination, without any agglutination; i.e. there is an influx of new matter, or nourishment, but this is so thin, and watery, that it has no power to make it bind.

Some will have agglutination to be effected by a ferment: others assert, that by reason of the glutinous quality of the chyle, a mere contact suffices to make it adhere to the parts.

**AGGREGATION** is used by some astronomers to denote the meeting or combination of two or more stars in the fame part of the zodiac.

**AGGREGATION** is more peculiarly understood of the seeming condition of several stars, so as to form a nebulous star.

**AGGREGATION**, in Surgery, the same as adhesion. The reunion of wounds was formerly supposed to be effected by means of certain applications, named agglutinants; but these remedies are now known to act only by keeping the separated parts in exact apposition. The doctrine of adhesion is treated at large in the first volume of Mr. John Bell's "Principles of Surgery," See the article Wounds.

A preternatural agglutination of the eyelids constitutes the disease named *Anchylolopharon*.

**AGGRAVATION**, compounded of *ad*, *to*, and *grevis*, heavy, the act of augmenting a crime, or punishment thereof.

Aggravation, in the Romish Canon *Lacrym*., is particularly used for an ecclesiastical censure, threatening an excommunication, after three admonitions used in vain.

From aggravation they proceed to re-aggravation; which is the last excommunication.

**AGGREGATE**/e glandula, the small glands in the cellular, which is next to the villous coat of the intestines, are so called; but as these glands are not visible in an un.injected gut, many anatomists suspect them to be only little bits of separated wax.

**AGGREGATE** Terre, in the Linnean system of Mineralogy, denote the seventh order of earths, compre-
A receptacle, called an aggregate, in disposition partial, in the town or our coward, European the village pay, take some either commonly, Geography, a day's journey on one. in officer person as pay and Agilus, market.  

Aghrim, AGGSPACH, in Geography, a market town in the circle above the Manhartsberg, in Austria, seated on the Danube; 12 leagues west of Vienna. AGGYA, in Ancient Geography, a town of Africa, mentioned by St. Augustin. AGHADOE, a village of Ireland, anciently a bishop's see, now united with Ardfeich. AGHENSISH, an island of Ireland, in the river Shannon; 16 miles below Limerick. ACHER, or Augher, a town of Ireland, in the south of Ulster, not far from Clogher. AGHEUSTIA, in Medicine. See AEGETIA. AGHRIM, in Geography, a town of Ireland, in the county of Wicklow and province of Leinster, about 31 miles south-west of Wicklow. Aghrim, a village in the county of Galway, worthy of being recorded on account of a decisive battle fought there and at Kilcommodan hill, July 12th, 1691, between general Ginkel and M. St. Ruth, the two commanders under William III. and James II. when St. Ruth, with 7000 of his men, were slain, and of the English only 600. Aghris Point, a cape on the west coast of Ireland, and north coast of the county of Sligo; 11 miles west of Sligo. N. lat. 54° 17'. W. long. 0° 22'.

AGHUNALASHKA, or Unalaska, one of the Fox islands in the northern Archipelago.

AGIA, a river on the north of Penaeus, the capital of West Florida, which, running east-north-east, falls into the bay of Santa Maria Galves.

AGIA Laura, a town of European Turkey, in the province of Macedonia; 19 miles south-east of Saloniki.

AGIADES, a kind of Turkish foliery, employed in fortifying of camps, smoothing of roads, and the like offices. Du-Cange.

AGIHALID, the name of an Egyptian tree, called also lyco and lytieum; it resembles the wild pear.

AGIAMA, from mena, holy, among Ancient Writers, is sometimes used for the whole church, sometimes for the more sacred part, or bema, wherein masts was said. Du-Cange.

AGIASOLUK, in Geography, a town of Asiatic Turkey, in the province of Natoth; 31 miles south-south-east of Smyrna.

AGIDES, denoting jarglers, in Antiquity, a name given to the priests of Cybele.

AGIDUM, or NIGIDUM, in Ancient Geography, a town of Cyprus, situated between Aphrodium and Lapathus.

AGIGENASALON, a town of Asiatic Turkey, about one day's journey from Tocut, in the road to Ifpan from Constantinople.

AGILDE, or AGilde, from the privative a, and the Saxon geldon, to pay, in our Ancient Gultons, a perfon foile, that whoever killed him was to pay no mulct for his death.

AGILITY, a light and active habit, or disposition of the members and parts of the body designed for motion. Some define agility, the art or habit of directing our strength, i.e. of exerting, or remitting it to advantage.

The improving of agility was one of the chief objects of the institutions of games and exercises. The athlete made particular profusion of the science of cultivating and improving agility.

AGILLARIUS, in Ancient Law-books, a heyward, or keeper of a herd of cattle in a common field.

The agillarius, or heyward of a town, or village, was to supervise the greater cattle, or common herd of beasts, and keep them within their due bounds; and was otherwise called babulus, q.d. cow-wage, (whence the reproachful term warward). He was a cottager, or other fervile tenant, he was exempted from the culummary services, as being presumed to be always attending on his herd, as a herdsman on his flock, who had therefore the like privilege.

The agillarius of the lord of a monaster, or a religious house, was an officer appointed to take care of the tillage and harvest-work, to pay the labourers, and see there were no incroachments made, or trifles committed; the name in effect with what has been otherwise called field-man, and kithing-man; and among us sailiff.

AGILUS, in Ancient Geography, a village of Peloponnesus, near mount Ira, in Mælinia, where, according to Pausanias, (i. iv. Meffen. c. xix.) Aristomenes was rescued from custody by the aid of a young woman, who afforded him the means of killing five guards, who conducted him to Sparta.

AGIMERE, in Geography, a country of Hindostan, bounded on the east by Agra, on the north by Delhi, on the south by Guzerat, and on the west by the sandy deserts towards the Indus. Its extent is considerable, and it comprehends many smaller states, as Agimere proper, Rampour, the
A foodpou, Rantampour, Joinagur, Banwalch, Nagore, and Bickancer. The capital of this fabah, of the same name, 
is situated in a pleasant valley, and on 21 sides surrounded by 
mountains. Its circumference is six miles, and it is guarded 
by walls, towers, and a strong fort; 170 miles west-south-west 
from Agra, and 175 miles west from Delhi. N. lat. 
26° 24'. E. long. 75° 20'.

AGINTHA, a town of Asia in India, on the other 
side the Ganges. According to Ptolomy, it was situated in 
long. 175° 40'; and lat. 18° 45'.

AGINCOURT, in Geography and History, a village 
of the French Netherlands, situated in the county of St. Pol, 
ex-department of the Straits of Calais; N. lat. 50° 33' and 
E. long. 2° 10'; remarkable for a glorious victory which 
the English, commanded by king Henry V. obtained over 
the French, Oct. 25th, in 1415. The army of Henry was 
reduced by sickness and various accidents to 10,000 men; 
and the French had collected a force consisting of 100,000, 
or, as some say, of 140,000 men, to intercept the march of 
the English from Harleux towards Calais. The king had 
recourse to all the means in his power for encouraging 
the progres of his small army, amidst the difficulties and 
inconveniences of their route; and on the evening of October 24, 
they arrived at Agincourt, within fight of the French, and 
prepared for a battle, which it was impossible to avoid. 
Whilst the English soldiers were exhibiting one another to 
fight bravely in the approaching action, the king 
overhearing some of his nobles expressing a wish, that the many 
brave men who were idle in England were present to affi 
them, exclaimed—"No! I would not have one man more; 
if we are defeated, we are too many; if it shall please 
God to give us the victory, as I trust he will, the smaller 
our number, the greater our glory." Henry, with the ad 
vantage of moon-light, reconnoitred the ground, and pitched 
upon a field of battle, admirably adapted for preferring 
a small army from being surrounded by a great one. It was 
a gentle declivity, from the village of Agincourt, of suffi 
cient extent for his small army, defended on each side by 
hedges, trees, and brush-wood. Having determined upon 
the place of action, the king and his army betook them 
selves to rest; except those who, considering this as the last 
night of their lives, spent it in devotion. The French, 
exulting in their numbers, confident of victory, and sup 
plied with abundance of provisiouns, spent the night in riotous 
feaslity, and in forming schemes for the dispersal of their 
prisoners and booty. It was, in general, resolved to put all 
the English to the sword, except the king and the chief 
nobility, who were to be made prisoners for the sake of 
their ransom. On the next morning the hostile armies were ranged 
in order of battle; each of them forming three lines, with 
boodied of cavalry on each wing. The constable d'Albert, 
who commanded the French army, lost the advantage of his 
superior number by drawing up his troops in a narrow plain, 
between two woods; and this was observed to be the chief 
cause of all the disasters that followed. The king of Eng 
land employed various arts to supply his defect of numbers. 
His first line consisted wholly of archers, four in file; each 
of whom, besides his bow and arrows, had a battle-axe, a 
twoed, and a flake pointed with iron at both ends, which he 
fixed before him in the ground, with the point inclining 
outwards, to protect him from the cavalry. This was a 
new invention, and had a happy effect. He dismissed all his 
prisoners on their word of honour to surrender themselves 
at Calais, if he gained the victory; and lodged all his bag 
gage in the village of Agincourt, in his rear, under a flen 
der guard. The first line was commanded by Edward duke 
of York; the second by the king himself; and the third 
by the duke of Exeter, the king's uncle. When the lines 
were formed, the king, in shining armour, with a crown of 
gold, adorned with precious stones, on his helmet, mounted 
on a fine white horse, rode along them, and addressed each 
corps with a cheerful countenance and animating speeches. 
To inflame their resentment against their enemies, he told 
them that the French had determined to cut off three fingers 
of the right hand of every prisoner; and to refute their love 
of honour, he declared, that every soldier who behaved 
well, should from that time be deemed a gentleman, and 
toiled to bear coat-armour. The English thus incited to 
excretion, stripped themselves almost naked, that they might 
deal their blows with the greater rapidity and vigour. The 
two armies, prepared for action, stood for a considerable 
time gazing at each other in solemn silence. At 10 o'clock, 
however, Henry, fearing that the French would discover 
the danger of their situation, and decline a battle, com 
manded the charge to be founded. Upon this the English 
kneed down and kifted the ground, and then rising sud 
denly, discharged a flight of arrows, which did great execu 
tion among the crowded ranks of the French. This onfer 
was succeeded by the attack of a body of archers, who had 
been placed in ambush, and who discharged their arrows on 
the flank of the French line, and threw it into disorder. 
The battle now became general, and raged with uncommon 
fury. When the English archers had expended all their 
arrows, they threw away their bows, and, rushing forward, 
made dreadful havoc with their swords and battle-axes; the 
first line of the enemy was thus defeated; and its leaders 
either killed or taken prisoners. The second line, com 
manded by the duke d'Alençon, who had vowed either to 
kill the king or take him prisoner, or to peril in the at 
tempt, advanced to the charge, and was encountered by the 
second line of the English, conducted by the king. The 
conflict was very furious. The duke d'Alençon forced his 
way to the king, and assaulted him with great violence; but 
the king brought him to the ground, and he was instantly dis 
patched. Discouraged by this disaster, the second line made no 
farther resistance; and the third fled without striking a blow; 
and thus the English, after a violent struggle of three hours, 
obtained a complete and signal victory. Although the king 
did not permit his men to pursue the fugitives to any great 
distance, the number of his captives exceeded that of his 
soldiers; and many of these prisoners were persons of rank 
and fortune, who, encumbered with their heavy armour, 
could not make their escape. The French left dead on the 
field of battle, the constable d'Albert, three dukes, the 
archbishop of Sens, one marshal, 13 earls, 92 barons, 1500 
knight, and a far greater number of gentlemen, besides 
several thousands of common soldiers. The French hist 
rians acknowledge, that the loss of the English was incon 
siderable; and those of our own contemporary writers who 
make it the greatest, affirm that it did not exceed 100; and 
that the duke of York and the earl of Suffolk were the only 
great men who fell on that side in this memorable action. 
To the gross error committed by the constable d'Albert, as 
much as to the wise measures of Henry, and the heroic 
valor of the English, the disgrace and ruin of the French 
army may be imputed. Henry, after this battle, pursued 
his march to Calais, with his spoils and prisoners; embarked 
for England, Nov. 16, and arrived that evening at Dover, 
where he was received with transports of joy, many of the 
people plunging into the sea to meet his barge. At his tri 
umphant entry into London, Nov. 23, the shows and 
pagents exhibited by the citizens were so numerous that it 
would have required a volume to describe them. Henry's 
Hist. vol. ix. p. 46—54. 8vo.

AGINIS, a burgh or village of Asfa in Sufiana, situate 
on the salt bank of the Tigris, towards lat. 30° 15'.

AGINNA,
AGINNA, one of the towns of Iberia, mentioned by Ptolemy, at the boundary of Cretica, and placed in long. 73° and lat. 36° 30'.

AGINNATA, a people of India, on the other side of the Ganges.

AGINUS, a city of the Nitiobriges, in Gallia Aquitania, now Amiens, or Azay.

AGINSKÁ, a river of Siberia, which runs into the Uda.

N. lat. 52° 25'. E. long. 98° 14'.

AGIO, in Commercio, an Italian word, signifying aid, is a term used chiefly in Holland, and at Venice, for the difference between the value of bank money, and current money. So that if a merchant who sells his merchandise, stipulated to be paid either 100 livres bank money, or 105 cash, or current money, in such case the agio is paid to be 5 per cent.

The bank agio varies in almost every place, and is greater or smaller, according as the currency is supposed to be more or less degraded below the standard of the state. At Amsterdam it used to be generally about 5 per cent; and by a resolution adopted not long before the late period of confusion, the bank sold bank-money for currency, at 5 per cent. agio, and bought it again at 4 per cent. agio. In consequence of this resolution, the agio could never either rise above 5, or sink below 4 per cent.; and the proportion between the market price of bank, and that of current money, was kept at all times very near to the proportion between their intrinsic values. One part of the profit of the bank accrued from selling bank-money at 5 per cent. agio, and buying it in at four. At Venice, the agio was 20 per cent. fixed; at Genoa, from 15 to 16 per cent. The agio of the bank of Hamburg, which is paid to be commonly about 14 per cent. is the supposed difference between the good standard money of the state, and the chipt, worn, and diminished currency poured into it from all the neighbouring states. See Bank and Exchange.

Agio is also used for the profit arising from discounting a note, bill, or the like.

Agio is also used, though with some impropriety, for the rate of exchange of a sum negociated, whether to profit or loss. It is also sometimes called agail.

Agio of distaffance is used, by some, for what we more usually call policy of assurance.

AGIOI Saranta, in Geography, a town of the island of Crete; 16 miles south from Scitina.

AGIOSYMANDRUM, compounded of ayios, holy, and symander, I sword; a wooden instrument used by the Greek and other churches, under the dominion of the Turks, to call together assemblies of the people.

The agiosymandrum was introduced in the place of bells, which the Turks prohibited their Christian subjects the use of, lest they should make them subservient to taxation.

AGIRIA, in Ancient Geography, a district of Spain, south-east of Bilbilis, belonging to the Celtiberians.

AGIRUM. See Agurium.

AGIRU, in Geography, the western part of the island of Corfu, comprehending 20 villages, and about 8200 inhabitants; the only remarkable place in it is Callie St. Angelo, which lies on the south cape called Palacrum; and beneath it stands a fiery caille called Paleo Calitretza.

AGIS IV. In Ancient History, king of Sparta, was the son of Endamidas, and the 16th descendant from Agis, who made an expedition into Perlia. This prince was eminently distinguished by his virtue in a corrupt period of the Spartan state, and by his laudable efforts for the reformation of his country. Sparta was sunk by the influx of wealth into luxury and indolence; and the discipline effaced by the widows of Lycurgus, was neglected and continued. Agis, though brought up in influence and indulgence by his mother Agelinda, and his grandmother Archidamia, who, as Plutarch informs us, filled more gold and silver than all the other Lacedaemonians, lamented the degeneracy of his country; and at the age of 20 years, exhibited a signal example of self-denial and abstinence in his own conduct, and nobly attempted to restore the ancient discipline of Sparta. With this view he aspired to the royal power, and explicitly declared, "that he should not value being king, if it were not for the hopes of reviving the ancient laws and discipline of Sparta." A new law had been introduced, at the instigation of Epitades, one of the Ephori, in order to avenge himself on one of his foes, who had defiled him, for the alienation of hereditary estates. The consequence of this law was, that all patrimonial possessions were soon engrossed by a few persons; general poverty, and indolence prevailed; the inferior classes of the people envied their superiors; and those who were delinquent of revenues, and excluded from a participation of honour and wealth, were indifferent and reluctant in their efforts against a common enemy, and constantly waiting for an opportunity to ameliorate their object and depressed condition. In these circumstances of aggrandizement, on the one hand, and oppression and dissatisfaction on the other, Agis determined upon reformation. By the influence of Agelinda, his maternal uncle, who with similar views embarked in the design, he engaged the co-operation of his mother and grandmother. The young men generally concurred; but those in more advanced life, and also the women of rank and wealth, trembled at the name of Lycurgus and reformation; and induced Leonidas, the other king, to oppose the projects of Agis. Agis, however, succeeded in obtaining a decree for cancelling all debts, and for the equal division of all the lands. For this purpose, he made an offer to the community of his own large estate, with 600 talents in money; and he procured, by the interposition and assistance of Lyfander, the deposition and banishment of Leonidas, and the concurrence of Cleomotus, his successor. The first measure that was adopted was the cancelling of debts; and in the execution of this, Ageflus, who being much in debt, was likely to be greatly benefited by it, was very active. Accordingly, all bonds were brought to the market-place, and burned in one pile, which Agelinda called "a glorious flame." But he contrived to defer the accomplishment of the other part of the equalizing plan; and, as Agis was under a necessity of marching to the succour of the Achaeans, Agelinda, by his tyrannical conduct, induced a conspiracy for restoring Leonidas, which proved successful, and Cleomotus was sent into exile. Agis, upon his return, was obliged to recur for sanctuary to a temple; and being betrayed by some false friends, who were bribed for this purpose, he was arrested in the name of the Ephori, and hurried to prison. Leonidas with a band of mercenaries, surrounded the prison, and the Ephori, and members of the senate who were in his interest, went in to interrogate Agis concerning the motives of his proceedings. The king averred, that it was his purpose to rerove the inhumanities of Lycurgus; and that he would adhere to this purpose, even in the prospect of an immediate death. His enemies then proceeded to pass sentence of death upon him, and the officers were ordered to remove him into a room where malefactors were strangled. But they, and even the mercenary soldiers, were restrained by their respect for his character from doing him any injury. When it was known that he was in custody, his mother and grandmother, and a multitude of people, assembled round the prison, and requested that he might have a fair trial. This application
tion in his favour, merely served to soften his fate. As he was led to execution, he fell to an officer whom he embraced in tears—"Weep not for me, my friend, for as I am thus suffering contrary to all law and justice, I am much happier, and more to be envied, than those who have condemned me." He then offered his neck to the executioner, without the least sign of reluctance. The grandmother of Agis was next seized and executed; and half of all his mother was ordered to enter the dismal dungeon, where she beheld her fon lying dead on the ground, and her aged parent at a little distance, with the fatal cord about her neck. Having laid the corpse by that of her fon, and decently covered it with linen, she cast herself on the body of Agis, and tenderly saluting his cold lips, exclaimed—"O my fon, the excels of thy humanity and moderation has been fatal, both to us and thee." Upon which, Amphales, one of the senators, whose cruelty had been signally displayed in this tragic scene, addressed her with a savage aspect—"Since you know and approved the designs of your fon, you shall share his recompense." She instantly rose, and rushed to the fatal cord, crying out—"May this, at least, be useful to Sparta!"

Leonidas completed this tragedy, by forcing Agiatis, the comfort of Agis, who was very rich, and distinguished by her wisdom and virtue, as well as by her beauty, to marry his son Cleomenes, to whom she conducted herself with as much attention as was consistent with the tender regard the entertained for the memory of Agis, and who is said to have profited by the account she gave him of the designs which the murdered sovereign had formed for the regulation of the government. Plut. in Agis. apud oper. tom. i. p. 795. Rollin's Anc. Hist. vol. v. p. 425—442.

AGIST, in Laws, signifies to take in and feed the cattle of others in the king's forest, and to gather up the money due for the same. Chart. de Forelta, g. Henry III. cap. g. The officers appointed for this purpose are called agistors, or gisakers, and are made by the king's letters patent: there are four of them in every forest, wherein the king hath any pannage. Manw. For. Laws, 8vo.

The time for this is fifteen days before Michaelmas, and as many after, when the running of the cattle cannot prejudice the game.

AGISTMENT, is supposed to be formed of the French gisfa, a bed, or lying place; though Kemet excepts to this etymology, and chooses rather to derive it from aiger, the field, or feeding-place for cattle; imagining agitation to have originally been the same with agrarium, agerium, or agraticum, the profit of feeding cattle on such a piece of ground. The term is applied to taking other men's cattle into any ground, at a certain rate per week. It is so called, because the cattle are suffered gisfas, that is, to lie down and couch there; and many great farms are employed to this purpose. 2 Instl. 643. Our graziers call cattle, which they thus take in to keep, gismets; and to gisfa, or juice, the ground, is when the occupier thereof feeds it not with his own flock, but takes in the cattle of others, to gisfa or pasture it. Agistment is likewise the profit of such feeding in a ground or field: and extends to the depasturing of barren cattle of the owner, for which tythes shall be paid to the parson.

Agistment is also used metaphorically for a charge, or burden on any thing.

In this sense we meet with terra ad cyathos maris agitata, i.e., charged with a tribute to keep out the sea.—So terra agitata, are lands whose owners are bound to keep up the sea-banks.

Agistment denotes likewise the duty or levy for repairing the banks and walls in Romney-marsh, which was particularly called agistamentum; and the act of laying such a pro-

portion of this duty on the several estates, was called agis-
tator. See for, and Agistment.

AGISTOR, or Agistator. See Agist and Agistment.

AGISYMBLA, in Ancient Geography, now Zanguebar, a district of Libya interior, situated, according to Agathemerus, to the south and east of the Aethiopia Anthropophagi. The parallel passing through this country 16° south of the equator, bounded the knowledge of the ancients to the south.

AGISYMBLA, in Modern Geography, a town of Africa, in the kingdom of Congo.

AGITA, or Aguti, in Ancient Geography, a small island between Sicily and Africa.

AGITATION, Agitation, properly signifies shaking; or reciprocal motion of a body.

The prophets, quakers, Pythian priestesses, &c. were subject to violent agitations of body. See Inspiration.

Among physiologists, the term is sometimes appropriated to that species of earthquake, called tremor, or aristato.

Among the philosophers, it is chiefly used for an intense commotion of the parts of any natural body.

Thus, fire is said to agitate the minute particles of bodies.

—Fermentation and effervescence are attended with a brisk agitation of the particles.

Heat is supposed by some to confit in the agitation of the parts of the hot body; and sound is produced by a tremulous agitation, excited first in the nervous body, and communicated thence to the ambient air.

Agitation is likewise used for a violent hurry or perturbation of spirits, occasioned by some predominant passion.

Agitation is also used, in Medicine, for a species of exercife, popularly called swiaving; and, in general, for any exercife which shakes the body.

Bartholine mentions fits of the tooth-ach, deafness, &c. removed by vehement agitations of the body: and they have been found of especial use for preventing and dissolving concretions.

Dr. Sydenham attributes the great benefits of riding to agitation, which is very efficacious in removing obstructions of the oesofa. See Ædor.

Sanguification is in great measure effected by the agitation of the parts of the blood and chyle, in their continual circulation. Digestion itself is only supposed by some to be an inebulce kind of agitation.

Agitation of bealls in the forest, etc. Agitation of bees in the forest, etc. Agitation of bees in the forest, etc.

Agitante, something having power to agitate or shake another.

Agitative force of a pendulum, is that which produces motion in it.

The agitative force of the pendulum arises from three things: 1. The power of gravity. 2. The weight fastened at the end of the rod. 3. The distance of that weight from the point of fulnession; or, which amounts to the same thing, the length of the rod, or pendulum. Hilt. Acad. Soc. 1741.

AGITATO, in Mufet, a term which implies not only a quick movement but a character of expression arising from passion and perturbation. Piccinii's air, "Se il ciel mi divide," in the Alessandro of Metafallo, furnishes an admirable example of this kind of movement.

AGITATOR, in Antiquity, a charioteer; or he who drove or directed a chariot, or horser, in a race.

In which sense agitator amounts to the same with what the Romans called auriga; and we, a coachman, driver, &c.

Agitator was more peculiarly used for him who drove in the public course games in the circus.

The agitators were distinguished by their habits, into
AGLA, formed of the initial letters of the four following Hebrew words יקראל, which gave rise and designation to so many factions. Besides which, they had other marks or emblems of their family, corresponding to what we call arms.

The conquerors, besides the ordinary rewards, bravie, as crowns, &c. had flatlets erected to them in the circus: on the barks whereof, their titles, achievements, &c. were inscribed; several of which are still found among ancient inscriptions, drawn in the following formule: Vici seige, Peto, Constantia, &c.

It has been disputed, whether the agitators were on the footing of minions and pantomimes, and by law held infamous? Brillon. Select. Ex Jur. Civ. Ant. lib. i. cap. 10.

Agitators, militari. agitatores militari. were those who,裔 the model of the house of peers; and thus a military parliament was formed in opposition to the parliament at Westminster. Cromwell engaged himself with the agitators, whom he found to have a greater interest than the council of war; and who undertook to make propofals relating to the reformation of religion, and the state.

The agitators as well as the council of officers were altogether moved by his direction, and conveyed his will to the whole army. By means of theses instruments, he overawed the parliament, and reduced it to submission; and having gained possession of the king's person, to whom for some time he and his officers paid attention and respect, he contrived to terrify him by the menaces of the agitators, and thus induced him to make his escape from Hampton Court; and to take refuge at Carisbrooke Castle, in the Isle of Wight.

Cromwell, being entirely master of the parliament, and free from all anxiety with regard to the custody of the king's person, applied himself seriously to quell those disorders in the army, which he himself had artfully raised and successfully employed, against both king and parliament. With this view, besides other measures which he adopted, he issued orders for discontinuing the meetings of the agitators; and he pretended to pay entire obedience to the parliament, whom, being now fully reduced to submission, he proposed to make, for the future, the instruments of his authority. But the Levellers, for so that party was called, because they wished to abolish royalty and nobility, to level all ranks of men, to introduce an universal equality both of property and of power, and who maintained that the meanest senterial, if enlightened by the spirit, was entitled to equal regard with the greatest commander, having tafted the sweets of dominion, would not easily be deprived of it. They secretly continued their meetings; they asserted, that their officers, as much as any part of the church or state, needed reformation; and several regiments joined in sectarian renonances and petitions. Separate rendezvous were concerted; and every thing tended to anarchy and confusion. But this discontent was soon cured by the rough, but dextrous hand of Cromwell. He chose the opportunity of a review, that he might display the greater boldness, and spread the terror the more widely. He seized the ring-leaders before their companions; held in the field a council of war; shot one mutineer instantly, and struck such dread into the rest, that they presently threw down the symbols of sedition, which they had displayed, and thenforth returned to their discipline and obedience. Hume's Hist. vol. vii. p. 109. 8vo.
Atmanisphe, famous cogitation, the fix a situated fanaticism, marching a

The Roman armies, in their marches, were divided into primus agmen, answering to our vanguard; medium agmen, our main-battle; and posteriorum agmen, the rear-guard.

The order of their march was always after the first signal with the trumpets, &c. the tents were taken down, and the baggage packed up; at the second signal, the baggage was to be loaded on the horses and carriages; and at the third signal, they were to begin their march. First came the extraordinaris; then the auxiliaries of the first wing with their baggage; these were followed by the legions. The cavalry marched either on each side, or behind.

Also used for any number of persons, or even animals, moving or advancing in some regular order.

AGMET, or AGMAT, in Geography, was formerly the capital of Morocco, in Africa, situated on a declivity of a hill, which is part of Mount Atlas, and near a river of the same name; six leagues south of Morocco. It is at present reduced and inhabited by poor people. N. lat. 30° 50'; W. long. 7° 15'.

Agnathus, or Agnes, in Botany, the name given by Vaillant to a genus of plants, called afterwards cornutia by Plummer and Linnaeus.

AGNATI, in the Roman Law, the male descendants from the same father; and in the Scots law, cognates are understood to be those who are nearly related by the father, though females intervene.

AGNATION, formed from ad, to, and nasci, to be born, in the Civil Law, the kindred, or relation between the descendants of the same father, being males, and unfixed only from males.

Agnation differs from cognation, as the latter is an universal name, under which the whole family, and even the cognati themselves are contained; and agnation, a particular branch of cognation, which only includes the descendants in the male line. Again, agnation is properly only a civil name, as that of gens, or family; cognation, a natural name, or derived from blood.

By the law of the Twelve Tables, males and females succeed one another, according to the order of proximity, and without any regard to the sex; but the hues were afterwards changed in this respect, by the Lex Vinceta; and women were excluded from the privileges of agnation, excepting such as were within the degree of consanguinity; i.e. excepting the sisters of him who died intestate; and it was hence that the difference between cognati and cognati first took its rise.

But this difference was again abolished by Justinian (Inf. 3. 10), and the females were reinstated in the right of agnation; and all the descendants on the father's side, whether
AGNIEL, an ancient French gold coin, first struck under the reign of St. Louis, worth about twelve folis, or six deniers. The agnèl is also called sometimes mouton d’or, and agneal d’or. The denomination is supposed to have arisen from the figure of a lamb, or sheep, struck on one side. After the reign of St. Louis, they bore on the reverse the words, “Christus regnat, victor imperat.”

AGNIELT, an ancient French silver coin, first struck under Philip le Bel, worth about twenty folis.

AGNELLI, FRÉDÉRIC, in Biography, was an engraver of Milan in the beginning of the 17th century. His chief employment seems to have been portraits, though he sometimes engraved architecture and emblematical subjects. The dome of Milan was engraved by him. Strutt.

AGNEREINS, in Geography, a small place, which was once the residence of a Castellany, in the former principality of Dombes, and present department of Ain, in France.

AGNES, in Natural History, a name given by Cramer to a species of Papilio Dianus, the ZANGIS of Gmelin’s edition of the Linnaean system.

AGNES, St., in Geography, one of the SCILLY isles, which, though of small extent, is well cultivated, and fertile in corn and græs. The inhabitants, who are poor, form about 50 households, and yield the proprietor 40l. a year. The church is small and neat, and was built by the Godolphin family. But the principal ornament and support of this island is the light-house, whence St. Agnes is called the Light-house island. This stands on the most elevated ground, and is built with stone from the foundation to the lantern, which is 112 feet high; the gallery 4, the fall-lights 11½ feet high, 3 feet 2 inches wide, and 16 in number. The floor of the lantern is brick, upon which is placed a square iron grate, barred on every side, with one great chimney in the canopy roof, and several lesser ones, to let out the smoke; and a large pair of smith’s bellows is so fixed as to be used with ease when it is wanted. This noble structure is plaited white, and serves as a day mark to ships coming from the South. The keeper of this light-house has a salary of 40l. a year from the Trinity-houfe, with a dwelling-houfe and ground for a garden. His assistance is allowed 20l. a year. The light-house is annually supplied with coals, and the carriage of these from the sea-side to the building is a benefit to the poor inhabitants. The true latitude of the light-house is E. 49° 56’. long. 6° 46’. W.

AGNES, St., is also the name of a Cape on the coast of Patagonia, in South America. S. lat. 53° 55’. W. long. 66° 35’.

AGNETSON or AGNETEN, two contiguous towns of Transylvania, on the river Hopedeh, four leagues north of Hermannstadt. N. lat. 45° 45’. E. long. 25° 20’.

AGNI-CORNUS, a generic, a promontory of Egypt, to the north-east of the Böbitine gulf.

AGNIERS, the denomination of a tribe or canton of Iroquois Indians, who vigorously and repeatedly resisted the French in their attempts to settle in Canada. They appeared for a long time among the most determined enemies to the popish missionaries, who made various efforts for their conversion; however, in 1668, many of them were converted to the Catholic faith, more perhaps from a regard to convenience and interest than by conviction. Their converts, amongst whom were some distinguished females, removed to the Huron settlement of Lorette, where they were encouraged to reside, in hopes of their forming a barrier against the incursions of their savage countrymen. But no influence or address was sufficient to keep them steady in their attachment to the French nation. Frontenac, who, in 1680, was declared governor of Canada, though his previous conduct had been extremely offensive and irritating, planned an expedition against the Agniers, and refused utterly to extingush them. For this purpose he employed a large army of regulars, and of such Canadians and Indians as were attached to his interest; which entered into the country of the Agniers, destroyed three villages, and massacred most of the inhabitants. See CANADA and IROQUOIS.

AGNIFER is an appellation applied, by some Ecclesiastical Writers, to John the Baptist, and used in the name of a priest with presbyter, or fore-runner.

AGNINA membrana, in Anatomy, the name of the amnios.

AGNINA laetica, see LACTUCA.

AGNO, in Geography, a district of Lavis, in Switzerland, containing 41 parishes or villages, and bordering on a part of the Lugano lake, which is called the lago d’Agno, and receives into it a river of the same name.

AGNO, a river of Naples, which rises in the mountainous parts of Terra di Lavora, washes the town of Accerra, and, passing between Capua and Avera, falls into the Mediterranean, about seven miles north of Puzzoloni.

AGNODICE, in Biography, an Athenian lady, who in the disguise of a man, attended the lefions of Herophilus, and acquired so much knowledge of the treatment of diseases, as to be in great request among her own sex, to whom she discovered her contrivance. She was particularly expert in the practice of midwifery. At length the physicians, jealous of her success, was, and ignorant of her sex, accused her of introducing herself to the women under the pretence of affixing them in their labours and complaints, but in reality from views of incontinence. Being cited to the areopagus, the made herself known; and her judges were so well satisfied with her conduct, and perhaps with the women for patronizing her, that they repealed a law then existing, prohibiting women to practice any branch of medicine, and decreed that women of the rank of citizens might be allowed that liberty. A physician, Mr. Heeque, Eloy fays, published a volume in the year 1747, intitled, De l’Indépendance aux Hommes, d’accoudier des Femmes, written with much ingenuity; in which he attributes the looseness in the morals of the present age, to the custom of admitting men to the general practice of midwifery, for in particular cases he acknowledges their affiance to be necessary. His book has given birth to others in this country, written with the same view of endeavouring to excite a prejudice in the women against employing men, particularly by the late Mr. Philip Thicknes. But the virulence, and the indelicacy of his writings on the subject, must have defeated his end; as it would argue a greater degree of indecency to have been supposed capable of reading his book, than to permit the practice he pretends to confine. The strongest argument against admitting men into the general practice is, that in all ordinary cafes, women are perfectly competent; but as cafes do, and must for ever occur, in which a kind of affiance is required that women are incapable of giving, if the men were not to attend in ordinary cafes, they would not acquire the expertness that is necessary to enable them to deliver in difficult and extraordinary cafes.

AGNOETÆ, of agno, to be ignorant of, in Church History, a sect of Etuytians, whose founder is said to have been Themistius, a deacon of Alexandria, in the 6th century, who maintained that Christ, considered as to his human nature,
was ignorant of certain things, and particularly of the time of the day of judgment.

Eulogius, patriarch of Alexandria, ascribes this doctrine to certain solitaries in the neighbourhood of Jerusalem, who, in defence hereof, alleged divers texts of the New Testament, and, among others, this of St.Mark, chap. xiii. ver. 32. "Of that day and hour knoweth no man; no not the angels who are in heaven, neither the Son, but the Father only."

The ancient Arians, and the modern Unitarians, urge this and similar passages as arguments against the deity of Christ. To which it has been replied, by means of a distinction to which the others object, that Christ, as a man, did not know the day of judgment; or, that he was not commissioned to gratify the curiosity of his disciples in this respect, by revealing it to them. Accordingly Dr. Macknight (Harmony, p. 520) observes, that the word αὐτῷ (Mark xii. 32.) has the force of the Hebrew conjugation Hipril; and αὐτῷ, in the sense of this conjugation, signifies to make another to know, or to declare. And he reads the text, "But of that day, and hour, none maketh you to know; i.e. none hath power to make you know it. Neither man, nor angel, nor even the Son himself can reveal the day and hour of the destruction of Jerusalem to you; because the Father hath determined that it should not be revealed.

AGNOIA, a word used by Physicians, when a person in a fever does not know his acquaintance. When a rigor accompanies this symptom, Hippocrates says it is dangerous.

AGNOMEN, in Antiquity, an epithet given to a person, either by way of praise, or derision, or from some remarkable event, which became, as it were, an additional name, but peculiar to the person, and not deifiable to his office. Thus, one of the Scipios was named Africanus, and the other Africanius, from the brave achievements which the one performed in Africa, and the other in Asia.

The agnomen was the third in order of the three Roman names. Thus in Marcus Tullius Cicero, Marcus is the praenomen, Tullius the nomen, and Cicero the agnomen.

Others think the agnomen to have been the fourth or hononary name, superadded on account of some extraordinary action or virtue. Thus, in the case of Lucius Cornelius Scipio Africanus, Lucius was the praenomen, Cornelius the nomen, Scipio the surname or cognomen, and Africanus the agnomen. But many of the ancient authors, as Livy, Cicero, and Valerius Maximus, call the fourth name cognomen. Some imagine agnomen and cognomen to have been the same, as they generally are, except in cases of adoption.

It was a custom among the Romans, for a person, when adopted into another family to lay aside all his other names, and only retain his family-name, to which he added the praenomen, nomen, and cognomen of the adopter.

Thus P. Cornelius Scipio, being adopted by Q. Caecilius Metellus, had aside his praenomen Publius, and nomen Cornelius, and was called Q. Caecilius Metellus Scipio.

AGNON, in Ancient Geography, a fountain of Greece, in Arcadia, which derived its name from the nymph Agno, who had been the nurse of Jupiter. It is said that the water of this fountain rose in a cloud and then descended in rain.

AGNONE, or Anglona, in Geography, a town of Naples, in the Abruzzi citra; nine miles south-east of Civita Borella.

AGNONIA, a town of Thrace, near Amphipolis, founded by Agnon the Athenian, who conducted lither a colony. Steph. Byz.

AGNON, a borough of Attica, belonging, says Steph. Byz. to the tribe of Acarniades, but according to Suidas to the tribe of Acamantides, and assigned by others to the tribe of Attalides.

AGNos, in Ethnology, a name given by Athenaeus, and many of the other Greek writers, to that fish called callitonymus or uranoscopus.

AGNOTES, in Ancient Geography, a people of Gaul, whose situation is not precisely known. M. d'Anville places them in Britannia, north-west of the Osthin; and he says that the western part of the diocese of Leon has still preserved in one of the districts of the diocese the name of Ag.

AGNOUS Callis, the chafee tree, in Botany, a species of Vitis. This is a native of Sicily, where it affects humid and shady places; but has been so long ago as 1570, introduced into the gardens of this country, where it bears the cold of winter in the open ground. This plant was famous among the ancients as a specific for the preservation of chalybium, and the preventing of all venereal diseases, pollutions, &c.

The Greeks call it κέφαλη, κεφάλι; to which has since been added the reduplicatives κεφαλί, κεφάλι, κεφάλι.

The Athenian ladies, who made proficiency of chalybium, lay upon leaves of agnos callis, during the feast of Ceres. Pliny Hist. N. lib. xxi. c. 9. See Creta. Agnos. The feeds, which have long been medicinally used, and were formerly admitted as an article of the Medical Medical, are of a round figure, and about the size of pepper; they have a pungent acid tase, and an unpleasant aromatic smell; from the days of Dioscorides they have been much celebrated for their efficacy in subduing the inclination natural between the sexes; and from their usufulness to those that lead a monastic life, they have been called monks’ pepper. These feeds, so far from possessing an antiprophylactic virtue, have had an opposite quality ascribed to them by modern writers. Their aromatic puinance favours this opinion, which is confirmed by the statement of Bergius, who says that they are carminative and emmenagogue. In this island they do not promise much medical advantage.

The thumb is also called agnon, vixis, sometimes elegon, lygn, and lynx.

AGNUS Dei, in the Romish Church, denotes a cake of wax stamped with the figure of a lamb, supporting the banner of the cross, consecrated in the due form by the pope, to be distributed in presents among the people, and supposed to have great virtues annexed to it.

The name literally signifies Lamb of God: this being supposed an image or representation of the Lamb of God, who took away the sins of the world.

They cover it up with a piece of stuff, cut in form of a heart, and carry it very devoutly in their processions. — The Romish priests, and religious, derive considerable pecunary advantage from selling these Agnus Dei’s to home, and pretending to sell them to others. The pope provides a regular supply, by conferring once in seven years: they are distributed by the matter of the wardrobe; and received by the cardinals, and other prelates, with great reverence, in their caps and mitres. — This ceremony they pretend to derive from an ancient custom of the church, wherein part of the palfial taper, consecrated on Holy Thursday, was distributed among the people, to perfume their hands, fields, etc. in order to drive away devils, and to preserve them from storms and tempests.


Some
Some authors also speak of a kind of mettalline Agnus Dei, hung to chaplets, or pater-nottles.

The Agnus Dei is forbidden to be brought into England, under the pain of incurring a presument. 13 Eliz. cap. 2.

Agnus Dei is also a name popularly given to that part of the mass, wherein the priest, striking his breast three times, reiterates, with a loud voice, a prayer beginning with the words Agnus Dei. It is said to have been first brought into the mass by pope Sergius I.

Agnus Scythicus, in Natural History, a kind of opophyes, or plant-animal, said to grow in Tartary, resembling the figure and structure of a lamb.

The Scythian lamb is also called agnus vegetabilis, agnus Tartaricus, and by the people of the country, borometz, boromets, or boromote.

The usual account given of this extraordinary production is, that the Tartars throw in their ground a feed resembling that of melon, but less oblong; from whence arises a plant called by them boromets, i.e. lamb, growing almost to the height of three feet, and having feet, hoofs, ears, and the whole head, excepting horns, resembling that animal. In lieu of however, it has a peculiar fort of hair, not unlike horns; it is covered with a fine thin flax, which being pulled off, is worn by the natives as a cover for the head. The pulp within resembles that of the gummarus; and when wounded, a liquor oozes out like blood. It lives as long as there is grubs and herbage around it: but when these are consumed, it wastes and dies. They add, that wolves are fond of it, while no other beasts will feed on it.

De Eugenius seems to have been the first who suspected this account to be fabulous; and Kempter, when in the country, made diligent inquiry concerning it, but could hear of nothing like it.

As to the plants grown under this denomination, in some repositories of rarities, they appear to be originally the roots, or stalks, of certain vegetables, probably of the capillary or fern kind, and supposed by some to be the polyspermum aureum, covered with a wooley moss, which naturally bearing resemblance to the figure of a lamb, have been helped out and brought near to it by art, and the addition of new parts.

Sir Hans Sloane, and Breynius, give us the figures and descriptions of such boromets in their collections. It is from these plants that the Indian moss is gathered, famous for its use in staunching blood. Breynius and Libavius have written expressly on the Agnus Scythicus. Phil. Trans. N° 287, and N° 390. Abr. vol. ii. p. 646. vol. vi. pt. 2. p. 317. See Botany, pl. vi. fig. 7.

AGOAS Bellus, in Geography, a town of Portugal, in the province of Estramadura; three and a half leagues north-east from Thomar.

AGOAS de Moura, a town in the same kingdom and province; four and a half leagues north-east of Setuval.

AGOAS Ouentas, a town in the same province of Portugal, seven leagues call-north-east from Abrantes.

AGOARD, in Biography, archbishop of Lyons, was one of the most learned and celebrated prelates of the 9th century. He was born in the year 727, removed from Spain into France in 782, ordained priest in 804, and, having been nine years coadjutor to Liddende, archbishop of Lyons, was appointed his successor in 816, upon his retiring to a monastery, with the consent of the emperor and the whole synod of the French bishops. From this fee he was expelled by Lewis the Debonnaire, because he espoused the party of his son Lotharius, and was one of the chief intruments in depofing him in the assembly of bishops at Compiene in 833. But the sons of Lewis, having made their peace with him, restored Agobard to the favour of the emperor, and also to his see, in the possession of which he continued till his death in 840. As a scholar and a divine, Agobard was much more distinguished than as a politician. He zealously opposed the worship and use of images in a treatise "de Picturis et Imaginibus," he wrote another treatise to prove that Chriif was not merely the adopted, but the true and natural son of God; and a tract on the Priesthood, recommending attention to the character of those who were appointed to this office, affenting their privileges and inculcating their duty. His work concerning hail and thunder, was a direct attack upon superstition, and designed to expose a prevailing error, that it was in the power of foreseers to rade tempests. During an epidemic diseafe, which occasioned large donations to the church, in hopes of preventing the infection, he wrote a tract to expel the avarice of the clergy, who, in a feaon of public calamity, took advantage of the fears and credulity of the people.

He also opposed the practice of duelling, and wrote to the emperor soliciting the repeal of the law of Gondebald, which allowed the decision of disputes by single combat, or by the ordeal of fire and water. He also wrote several tracts against the Jews. His manner of writing was simple and easy; his reasoning was commonly juft; and he manifests an extensive acquaintance with the doctrines of the fathers and the discipline of the church; so that considering the period in which he lived, he deferves to be regarded as a man of talents and learning. His works, after having been long buried in obscurity, were published by Maffo in 1605; and a more correct edition of them by Buluze at Paris in 1666, in two volumes, 8vo. This edition has been reprinted in tom. xiv. of the Bibliotheca Patrum. Gen. Dict. Dupin. Cave's Hist. Liter. tom. ii. p. 11. Ed. Oxon.

AGOBEL, in Geography, a town of Africa, in the kingdom of Tremecen; four leagues from Oran. There is another town of the same name in the province of Hea, and empire of Morocco.

AGOGA, òvyan, duetus, of òvya, duco. I draw, in Natural History, a ditch or drain for carrying off the water from a mine.

AGOGA, in Geography, a town of Africa on the Sfax coast.

AGOCE, òvyan, in the Ancient Mythic, a species of modulation, wherein the sounds or notes proceed by continuous degrees of the scale, both rising and falling. As when we sing re, mi, fa, fol, la; la, fol, fa, mi, re.

Agoge answers to what the Latins call duetus, and the Italians conducimento, and di grado: it stands contraddistinguished from place, peteia, &c.

Agoge makes the first part of the melopoeia, or art of modulating.

There are three species and cafes of this modulation; first, when the sounds follow each other from grave to acute, i.e. rising as in singing, BCDE. This the Latins call duetus reves, and the Italians conducimento retto.

The second, when they go from acute to grave, i.e. falling, as in the notes E D C B, called by the ancients duetus rever- tensi, and by the modern Italians conducimento ritornante.

The third, when they rise by flats and fall by sharps, as in D, E, F, sharp, G, or, vice verfa, as in G, F, natural, E, flat, D. This the ancients call duetus cincumcurrens, and the Italians conducimento concorrente. Euclid. Introd. Harm. p. 22. Ariisid. Quintil. de Melop. lib. i. Mem. Acad. Incr. tom. viii. Malcolm on Mus. chap. xiv. sec. 4. In the ancient Greek muse, agoge is of similar import with the Italian word movimento, motro, and the English, movement; of which, in compositions of two parts, there are three kinds; viz. moto retto, moto contrario, and moto obliquo, i.e. equal, contrary and oblique.
AGOGI A, or AGUILLASTRO, in Geography, a small island in the Mediterranean; three miles north from cape Barbaroa in Sardinia.

AGOL, a town of Africa, in the upper Ethiopia.

AGOMISO, an island in Juno's bay, near its western coast, north north-west from Albany foal.

AGOMPHAISIS, or GOMPHAISIS, a definer of the teeth. It consists in their being loose in their sockets.

AGON, in Antiquity, a dispute or contest for the malletry, either in some exercise of the body or of the mind.

There were agonse on certain days, in most of the ancient faults, and other ceremonies in honour of the gods, or heroes.

There were also agones established expressly, and not attached to any other solemnity.—Such was the agon symmision, at Athens; the agon Romanus, instituted by the Argians in the 53d Olympiad; the agon Olympius, instituted by Hercules, 430 years before the first Olympiad; the agon Adrianiety, instituted at Athens, by the emperor Adriar, called ROMANUS, PAVLUS, and OLIMPIANUS.

The Romans had also agones instituted after the example of the Greeks; the emperor Aurelian established the ago sofis, agon of the fun; and Diocletian, the agon capitolinus, which was held every fourth year, after the manner of the Olympic games.—Hence the years, instead of letters, are sometimes numberd by agones. The agon salinarius, instituted at Ponzoli, by the emperor Antonius Pius, and held every fifth year, was a sacred combat, and the victors at it were called hierarches; they were to be received into the city, through a breach in the wall, made on purpose. The agon musicus was that wherein either poets, or musicians, disputed for the prize; such was that dedicated to Ptolemy to Apollo and the Muses, with rewards assigned to the writers who gained the victory. Of this kind were also found some in the Pythian, Nemean, and Iliumar games; also in the Olympic games, after Nero's time, when first introduced a musical agon here; others were founded by the emperor Domitian, and others at Rome, Naples, and others. The agon Romanus was a quinquennial combat, called also Neromian, from the name of its instillator, who here bore away the prize for playing on the harp, cithara.

AGO is also used for a place near the Tyber, otherwise called cirrus Flaminini, wherein curule games and combats were celebrated.

AGO is also used by Physicians for the struggle of death.

AGO was also a minifier of sacrifice, whose bufines was to strike the victim. The name is supposed to have been derived hence, that standing ready to give the stroke, he asked agon, or agon, shall I strike? The agon was also called popis, culturarins, and victimarius.

AGO, in Geography, an island in the north part of Haffingland, one of the provinces of Sweden, which has a good harbour and skilful mariners. It is in that part of the Baltic, called the Bothnia Gulf. N. lat. 61° 20'. E. long. 18° 10'.

AGOANALS, in Antiquity, an epitheget given to the Salii, consecrated by Numa Pompius to the god Mars, termed Graduers.

They were also called Quirinales, from the Mons Quirinales, where they officiated. Rosinius calls them Agonefes Salii.

AGOALIA, in Antiquity, feats celebrated by the Romans, in honour of Janus; or, as some would have it, in honour of the god Agonius, whom the Romans used to invoke upon their undertaking any business of importance. They appear to have been intituted by Numa, and held thrice in the year, viz. on the third of the ides of January, on the twelfth of the calends of June, and the third of the idea of December. Struv. Ant. Rom. c. 8.

AGONALIS CIRCUS, now the Piazza Navona, is one of the most magnificent arcs in Rome, near 80 common places in breadth, and about 350 in length, adorned with three lofty fountains, which serve to keep the air fresh and cool, and with noble statues. Neptune by Bernini, the Triton and Dolphin by Michael Angelo, the Divus by Claude, the Ganges by Bartola, the Nile by Bacchini, and Rio de la Plata by Raggi: all of which are of white marble, and also the obelisk of Caracalla of Egyptian marble, and covered with hieroglyphics, which was erected here by Innocent X. in 1651. The ruin of annexing the epitheget Agonalis to this Circus is not ascertained. Oilv seems to derive it from the Agona, or solemn games, supposed to have been the iudic Apollinaris, or Aequitas, instituted by Augustus, from which circumstance the Circus was called Apollinaris, and it was also denominated Alexandrinus, from Alexander Severus, who either included or repaired it.

AGONATA, in Antiquity, the fourth class of insects in the sylph of Fabricius; comprehending the cancer, the pagurus, the hippa, the scyllarum, the ailaeus, the equia, and the gammarus. Linnaeus has included the insects of this class under the genus cancer.

AGONE. See HERENNE.

AGONES, in Ancient Geography, a people who, according to Mela, inhabited that district of the Milanese, now called la val de Goffa. Polybius (i. ii. p. 105.) places them in the Celtic Gaul, near Sens. Acanum was their capital.

AGONES, an island near the mouth of the Anas.

AGONUS, in Mythology, a name given to Mercury, because he precluded over the Agonian games, of which he is said to have been the inventor. See AGLONAL.

AGONISMA, in Antiquity, the palm or prize given to the victor in a game or combat.

AGONISTARCHA, of agon, combat, and aigone, chief, in Antiquity, seems to have been much the same with agonoteta; though some suggest a difference, making it the office of the former to preside at, and direct the private exercizes of the athlete, which they went through by way of practice, before they made their appearance on the public theatres or amphitheatres.

AGONISTIC, agonisca, the science of what relates to the combats or agoncs of the ancients.

In which sense, agonicia amounts to much the same with athletic, and makes a branch of gymnastics.

AGONIST, agonistr, is also used among Ancient Physicians, for cold spring-water.

The reason of the denomination is taken from the plentiful use of that element in the rate of an acute erysipelaeous fever, wherein water was supposed to combat and struggle with the febrile heat.

AGONISTICI, in Ecclesiastical History, a name given by Donatus to those of his sect, whom he sent into the neighbouring places, fairs, markets, &c. to preach his doctrine; for which reason they are also called circuncrators, cir- cullinarii, circutes, cernentes, and, at Rome, montefest.

They were called agonists, from agon, combat; because they were fent, as it were, to fight, and subdue the people to their opinion.

AGONIMUS, in Roman Antiquity, was used for the day wherein the rex facrorum sacrificed a victim. The same name was also given to the place wherein the games were anciently celebrated.
AGONNA, in Geography, a kingdom of Africa, on the Gold Coast, extends from the Devil’s Mount, which separates it from Asen, and stretches along the sea coast to the village Anonfa, on the frontiers of Agomaro, through a space of sixteen miles, bounded on the North by Songuay, and on the South by the ocean. It abounds in towns and villages along the sea, the chief of which are Dajon, Polder, Mango, Winiba, and Simpa, besides several others. It is said to be rich in gold mines, the gold of which the Negroes gather in the land after a heavy fall of rain; but the natives have opposed opening the mines for fear of being disfranchised of their territory by the Europeans. Agonna surpasses Asen in extent and population; and is equal to it in fertility and beauty. It has the advantage of a large fresh-water river, well stocked with fish and eels. The English have built a fort in the middle of Agonna, at a village called Simpa or Winiba, but the fort is not of any great strength. The village is populous, and the inhabitants industrious in fishing and in agriculture; for they breed a great number of cattle, which they sell to their neighbours. At a small distance is Barku, a village once frequented by the French, where the language that is uniform along the Gold Coast changes into a different dialect, and a little farther it becomes altogether new.

This, according to Barbot, is the chief town in the kingdom of Agonna; and he says, that the surrounding country is fertile, pleasant, and well adapted for the embellishment of a factory. The English had formerly great influence here; but the Dutch have gained advantage, and built a triangular fort at Barku, mounted with 12 pieces of cannon. When dofman wrote, Agonna was governed by a queen, who was distinguished by extraordinary talents. But though the did not chuse to share her power with a husband, she was no stranger to the softer passions; and contrived means of indulging them, by a succession of flaves, and some fay, by a number of lovers at a time. N. lat. 5° 6′. W. long. 1°. Mod. Un. Hift. vol. xiii. p. 445.

AGONOSTHETA, compounded of αἰνίος, combat, and σφικτος, who strikes, in Antiquity, a magistrate chosen among the Greeks, to preside, and to be the superintendant of the sacred games, or combats; and whose province it was to register the name and country of each champion, to defray the expenses of the games, and to adjudge the prizes to the conquerors. Among the Romans, the like officer was denominated de- signator, and munificius. Middle-age writers usually confound agoniste, the combatants at the games, with the agonotheta, or presidents of them.

The agonostheta had also the immediate charge of the discipline and morals of the athletes. They examined, and admitted them into the society or order, or expelled them from it. During the combats, the agonostheta were clothed in purple, and rode in a triumphant manner through the circus, holding in their hands an ivory sceptre with an eagle on it. Juvenal. Sat. xi. 192.

Van Dale has an express defendant on the agonostheta.

The name agonostheta is still retained in schools and academias, for him who defrays the charge of the prizes distributed. The founders of prizes are perpetual agonostheta.

AGONOS, in Physia, a Greek word signifying bares. Hippocrates applies it to women who have no children, though they might have them, if the impediment were removed.

AGONUS, in Leibysology, a name used by authors, for the fish called by some faraxius, by others elaxis, and by others saracinus.

It is in many particulars very like the marea, or shad, called the mother of herrings, but smaller, never arriving at more than a foot in length: and is always lean and hank in spring, and fat in autumn. But the distinctions between it and the marea, if real, are so very small, that Mr Ray, and many of the most accurate naturalists, have suspected it the same fish, only in a different state.

AGONY. Agony, denotes the extremity of pain, or a disease, when nature makes her full effort, or struggle, to throw off the evil that oppresses her.

The word is formed from the Greek ἄγων, certain, combat; this being a kind of strife between life and death.

Much of the terror of death consists in the pangs and convulsions wherewith the agony seems attended; though we have reason to believe, that the pain in such cases is, ordinarily, not extremely acute; a course of pain and sickness having usually stupidised, and indisposed the nerves for any quick sensations. However, various means have been thought of for mitigating the agony of death. Lord Bacon considers this as part of the province of the physician, and that not only when such a mitigation may tend to a recovery, but also when there being no farther hopes of a recovery, it can only tend to make the passage out of life more calm and easy. Accordingly, he ranks euthanasia, or the art of dying calmly, among the defederata of science; and does not even seem to disapprove of the course Epicurus took for that end.—"Hinc Hygias eblus hautfit aquas." De Augm. Sc. lib. iv. c. 4.

Opium has been applied for this purpose, with the applause of some, but the condemnation of more.

Baglivi promised a treatise expresses, De Medicina Agonizantium, or the method of treating persins in the agonies of death. But perhaps one of the best receipts for this end, is that of Mr. Patin, viz. abstinence from all medicines. Our Saviour’s agony in the garden has perplexed several commentators; and some learned persons seem audiously to have avoided the term agony in their translations, as Beza, Le Clerc, and Lenfant; and in the translations of the Syriac version by Tremellius, Trottius and others, we have timor, or fear, for agony. Dr. Lardner (vol. vi. p. 86) suggests that θεραπευσαι την αγωνιαν (Luke xxii. 44) might be translated being under great concern. The effect of this agony has been differently explained. Many exporphists have thought with M. Le Clerc, that the expression αἰνιος ἐφ᾽ ἐμοί τοῦ ἐπικεφαλίου, only implies, that the drop of sweat were large and clammy, like drops of gore. Grotius understands the expression metaphorically, as denoting excessive sweat; but Dr. Whitby (in loc. obsever, that Arifotle (Hist. Anim. lib. iii. c. 19. Oper. tom. i. p. 899). De part. Anim. lib. iii. c 5. Oper. tom. i. p. 1098) and Diiodorus Siculus (lib. xvii. Oper. tom. ii. p. 230) mention bloody sweats, as attending some extraordinary agony of mind. Leti also, in his life of pope Sixtus V. p. 200, and Sir John Chardin, in his History of Persia, vol. i. p. 126, mention a similar phenomenon; to which Dr. Jackson (Works, vol. ii. p. 819) adds another from Thuanus, lib. x. p. 221. See Dodridge’s Family Expounder, vol. ii. p. 517.

Bartholinus (de Creece, p. 184. 193) produces examples of sweats that have been actually mixed with blood. So does MALDONAT in Matt. xxvi. 37. The possibility of this circumstance is ascertained by a fact well known in history, viz. that Charles IX. of France died of a malady, in which his blood gushed out of all the pores of his body. Voltaire (Univ. Hist. chap. 142) describes it thus; "Charles IX. died
in his 25th year. — The malady of which he died was very extraordinary; the blood gushed out of all his pores." This accident, of which there are some instances, was owing either to excessive fear, to violent passion, or to a warm and melancholy constitution.

AGONYLITE, or AGONYLITES, compounded of the privative α, γον, knee, and κενε, to bend, in Ecclesiastical History, a fact, in the seventh century, whose distinguing principle it was never to kneel, but to pray standing. See Genuflexion.

AGORAEUS, formed of αγοράς, market, in Antiquity, an appellation given to those deities who had stations in the public market-places, or fora. Mercury, whose statue was erected in almost every public place, was distinguished by this appellation.

AGORAEUS was also the name of a subordinate magistrate, in the cities of Asia, whose business it was to administer justice to artificers and the people.

AGORAH, Malagra, in Ancient Geography, a city of the Thracian Cherionesus, which stood on the gulf of Melas.

AGORAH, an ancient name of Egypt and Asia. See Gerah.

AGORANIS, in Ancient Geography, a river of India, mentioned by Arrian, Ind. cap. 4, which flowed into the Ganges.

AGORANOMUS, compounded of αγοράς, market, and ὀνόμα, name, in Antiquity, a magistrate of Athens, established for the maintenance of good order and policy in the markets, setting the prices of provisions, excepting corn, and deciding disputes relating to buying and selling, inspecting the weights, measures, and the like.

The agoranomus, among the Greeks, was much the same with the curule aedile among the Romans.

Aristotle distinguishes two kinds of magistrates, the agoranomous, who had the superintendence of the markets; and the affynomous, who inspected the buildings of the (αγορα) cities. The agoranomus, at Athens, were ten in number, five belonging to the city, and as many to the Piraeus: though others make them fifteen in all, of whom they assign ten to the city. To these a certain toll or tribute was paid, by all who brought any thing to sell in the market.

AGORITÆ, in Ancient Geography, a people of Asiatic Sarmatia.

AGORO, in Geography, a town of Italy, situate on the river Cordevol, on the frontiers of the Tyrolese; 21 miles west north-west from Belluno.

AGOSTA, a town of Sicily on the coast end of the island, to the south of Catania, with an excellent harbour. The greater part of it was destroyed by an earthquake in 1693; but has been since rebuilt. N. lat. 37° 20' E. long. 15° 15'.

AGOSTA island, in the Gulph of Venice, is nearly south from the west end of Carzola and Lefina islands, and west of Augusta. The island is of good road for ships, in N. lat. 42° 40'. E. long. 18' 52'.

AGOSTINO, Paolo, Da Valeron, in Biography, an eminent musical composer, was born in 1593, educated in the Roman school of music, under Bernardo Nanini, and succeeded Soriano, as master of the pontifical chapel at St. Peter's. He is represtented as one of the most scientific and inventive composers of his time in every species of music; and his productions for four, five, or eight choirs or choruses were the admiration of all Rome. Padre Martini has preserved an agnus dei, in eight parts, of this composer, which is a very extraordinary performance. He died in 1629, at the age of 36 years. Burney's Hist. of Music, vol. iii. Hawkins' Music, vol. iv.
much interrupted by the barbarity and fraud of both nations. Before what they fell, and what they pay to the governor of Damot, the Agows present a tribute to the king of 1000 daib of honey, each daib containing about 60 lbs. weight; 1500 men, and 1000 ounces of gold. The clothing of the Agows consists of hides, which they soften and manufacture in a manner peculiar to themselves. Of these they form a kind of skirt, which reaches down to their feet, and is guarded with a belt about their middle. The lower part resembles a large double petticoat, one fold of which they turn back over their shoulders, fastening it with a fewer across their breast before, and the married women carry their children in it behind. The younger fort are generally naked. The women are commonly thin, and, like the men, below the middle size. Barrenness is unknown among them. They are marriageable at nine years of age; at 11 they actually marry and bear children; and continue child-bearing to the age of 30, and in some instances beyond that period.

With regard to religion the Agows are grossly idolatrous and superstitious. The Nile, or the spirit residing in that river, is the object of their worship: whom they address under the titles of 'the everlasting God, light of the world, eye of the world, God of peace, their Saviour, and Father of the Universe.' To this Duty they present their supplications for seasonable rain, plenty of grass, and the preservation of a particular kind of serpents; at the same time deprecating thunder; and their prayers are pronounced very pathetically with a kind of tone or song. The flum or priest of the river, with whom Mr. Bruce conversed, pretended to have intercourse with a spirit, which occasionally appeared to him, and revealed to him future events. This spirit, he said, was of the river, God, the father of mankind. Thunder was deprecatcd, as the priest informed him, because it was hurtful to the bees, and their chief revenue was honey and wax. They prayed for serpents, because they taught the approach of good or evil. Serpents are kept in some of their houses; and they are fed with butter and milk before they undertake a journey, or any affair of consequence; and if they do not eat, this is considered as a bad omen. Before an invasion of the Gallais, they lay these serpents disappear, and are no where to be found. Taish, a fagacious governor of the country, who was addicted to this species of divination, would never mount his horse, or go from home, if an animal of this kind, which he had in his custody, refused to eat. Once a year, on the first appearance of the dog-star, or, as others say, 11 days after, their devotion is attended with circumstances of peculiar solemnity; on which occasion they sacrificing a black heifer, distribute parts of it to several clans, cut the carcase raw, and drink the water of the Nile. The bones are then burnt to ashes; and the head is carried into a cavern, which they say reaches below the foundations of the river, and there they perform their secret worship, which no one is allowed to divulge. The Agows of Damot worship the Nile; and those of Lahta pay nearly the same worship to the Siris or Tacazzé. These last have a separate language, and are Troglodytes, who live in caverns. Mr. Bruce apprehends that Agow is a compound of two words, Ag-sha, q.d. the Shepherds of the river; and that the species of idolatry introduced by them is a proof that they originally came from Carman, where they imbibed materialism instead of the pure Sabran worship of the Shepherds of Arazzi, which was at an early period, the only religion of this part of Africa. The mountains in all the districts or clans of Agows are perforated in caves of a very large size, which some suppose were their ancient habitations, when they were Tro-gleytes, or places of retreat when they were alarmed by the approach of their most formidable enemies, the Gallais. Others think it not improbable, that these caverns were used for religious purposes; that of Gress, in particular, was without a doubt a place of secret worship paid to the river, as it is still appropriated to that use, not only by the inhabitants of the village, but by the assembly of the clans in general, who retire for the celebration ofthose rites, to which none but the heads of families in the Agows country are ever admitted. Bruce's Trav. vol. i. 401, vol. iii. p. 527.

agra, a kind of sweet-scented wood, found in the island of Hainan, on the coast of China.

agra Carandiva, is another sweet-scented wood, which also comes from the island of Hainan.

agra, in Ancient Geography, the name of a district of Attica, near the source of the Illisus, where Diana hunted for the first time. Panantas (Attic, lib. i. p. 45.) says, that the had a temple in this place, dedicated to Diana Agreleus.

agra, was also a town of Attica — another of Arabia ; and another, an episcopal see of Numidia in Africa.

agra, called Agra by Ptolemy, in Geography, the capital of a Subah, or province of the same name, in Hindostan. It stands on the river Janna, about 50 miles above its confluence with the Tchantu, and 300 miles north-east of Surat; and from being an inconsiderable town with a small castle of earth, it became not only the capital of the province, but the first city in India for magnificence and commerce, during the long reign of the emperor Akbar, and of his son; and it even now exhibits more numerous monuments of former splendour than any city of Hindostan. Akbar, pleased with its situation, very much enlarged and adorned it, and in 1566 made it the seat of his court and empire; and hence it has been often called Akbarabad, or Akbar's habitation. The city is very long but not broad, in the form of a crecent; and surrounded by a wall of red stone, and a ditch 100 feet wide. The streets, with the exception of a few, are narrow and ill arranged; the houses are generally low and mean buildings; and the space within the wall is laid out in gardens and palaces, so that it is less populous than might be imagined, considering its extent. The castle and palace are structures of astonishing size and magnificence. The walls of the former consist of stone and brick, terraced in several places, and 20 cubits high. Between this and the river is a large space, designed for the exercise of the troops and other diversions in the emperor's view. The palace, which is within the castle, contains three courts, encompassed with porticos and galleries, all painted and gilt; and some pieces are said to have been plated with gold. Under the galleries of the first court are the lodgings for the imperial guards; those for the officers are in the second court; and the third contains the stately apartments of the emperor and his ladies. The completion of the palace occupied above 1000 labourers for 12 years, and cost nearly three millions of rupees. The emperor, for the execution of his plan, collected together, by the promise of ample rewards, the most skilful architects and the most celebrated artists in every branch, both of external ornament and domestic decoration. Besides the royal palace, there are several others ranged in a line, which belong to the princes and great lords of the court; and before it there is a very large square, and there are also 12 other squares in different parts of the city. The Caravanserais are more than 60 in number, and some of them have large courts with their porticos. There are at Agra above 800 public baths, and a great number of mosques, with very magnificent pulpets. Among the latter is the mausoleum of Akbar himself.
self, and another erected by the emperor Shah-jehan for his
eumpires Mahd-Alia, at the expense of 60 lacks of rupees,
or 750,000/. N. lat. 26° 43', E. long. 76° 44'.

Between this city and Lahore in the Punjab, which are
distant from each other 500 miles, there is planted on each
side of the road a continued row of shady trees, forming an
avenue, to which, whether we consider its extent, its
beauty, or its utility in a hot climate, there is nothing
similar in any country. Remmel's Memoir. p. 69. Traher's

The province, or Subah of Agra, is bounded on the north
by the province of Delhi, on the north by Oudh, on the south by Malwa,
and on the west by Agrimeer, and is about 175 miles long
and as many broad. According to the divisions of the emperor
Akbar, it contains 13 circars or counties, which are divided into
203 pargannahs or hundreds. The amount of the revenue is
16,156,257 Sicca rupees; and the number of the forces are
50,600 cavalry, 577,570 infantry, and 221 elephants.
It is, after many revolutions, says Mr. Mairim, in vol. i.
of his Indian Antiquities, published in 1793, at present possesed
by Madajee Sinda, one of the most formidable of the self-
created sovereigns of the Hindoostan. The indigo of this
province is deemed the most valuable in the East Indies.
Its productions are rice and cotton, oranges and lemons;
and its manufactures are white cloth, silkens stuffs, silver
and gold lace, &c.

Agra, or Erang, is the name given by Pliny (Nat.
Hist. tom. i. p. 339. Ed. Hard.) to the town of Hejaz,
in Arabia Felix, now called Hejr, or Al-Hebeg: situated,
in N. lat. 28° 30'. amidst a ridge of rocky mountains,
denominated Al-Athaleb, i. e. the fragments of itones; out
of which many houte have been cut, as some say, by the
Amalekites, or by their ancestors the Adites, Iramites, and
Thamudites. The Thamyden of the ancients are repre-
sented by Pliny as neighbours to this city.

AGRADO IIbea, a town of Africa, in Lower Guinea.

AGRÆA, a city of Arcadia, mentioned by Pliny, tom. i.
p. 195.

AGRÆA, a country of Greece, which extended itself
into Etolia and Acarnania.

AGRÆA, a people of Arabia Felix, who, according to
Pliny, were good warriors: and also a people of Etolia in
Greece, near the Acheles.

AGRAGA, an episcopal city of Spain.

AGRAGAS. See AGRIGENTUM. This was also a
river of Sicily, which joined the Hynpa, below Acri-
gentum.

AGRÆA, Agriae, and Agriani, a people of Pæonia,
between Haemus and Rhodope.

AGRAKOVA, a town of Russia, in the government of
Archangel, on the west of the White Sea; 17 German
miles west of Archangel.

AGRAM. See ZAGRAM.

GRAMON'T, a small town of Catalonia in Spain,
between Lerida and Solsona, on the river Segre, but the
capital of a jurisdiction. N. lat. 41° 50'. E. long. 58'.

AGRANÉ, a borough of Babylon, ruined by the Per-
fians.

AGRARIA, fiantemes, in the Ancient Military Art, corps
of guards posted in the fields, and in the open air.

AGRARIA, novae, was used for vehicles placed to keep watch,
or guard.

AGRARIAN, agrarian, formed of ager, a field, in a
general sense, signifying relating to fields or lands.

AGRARIAN, in the Roman jurisprudence, a denomination
given to such laws as relate to the partition or distribution
of lands.

There are 15 or 20 agrarian laws; whereof the principal
are, the Lex Caffi, in the year of Rome 258; the Lex
Iulia, in 396; the Lex Flaminia, in 255; two Sophron
laws, in the year 620; the Lex Apuleia, in the year
653; the Lex Edessa, the Lex Cornelia, in 673; the Lex
Servilia, in 690; the Lex Flavia; the Lex Julia, in the
year 913; the Lex Silva Liciniana, the Lex Livia, the
Lex Marcia, the Lex Rufina, made after the taking of Carthage;
the Lex Flavia, and the Lex Tilia. See AGRÆA.

AGRARIAN LAWS, Lex Agraria, absolutely, and by
way of culmination, so called, was a celebrated law, published
by Spartius Caffius, about the year 268, B. C. 486, for an equal
division of the conquered lands among all the citizens, and
for limiting the quantity of ground possessed by each person
to a certain number of acres. Those other two in the
Dipl. the one published by Cesar, and the other by Nerva,
only relate to the limits or boundaries of grounds; and have
no relation to that of Spartius Caffius. The Roman lands
were of divers kinds, some conquered from the enemies,
and not yet brought to the public account: others brought in
public favor; but clandestinely usurped by private
men: lastly, others purchased with the public money,
in order to be divided. Agrarian laws, either for dividing
lands taken from the enemy, or the public lands; or those
purchased with the public money, were easily passed
without disturbances; but those whereby private men were to
be ousted of their lands, and the common people put in posses-
sion of what had been held by the nobility, were never attempted
without great disturbances. This is the first time the Agrarian
law was mentioned; and the measure originated in the ambitious
views of Caffius, who thus intrigued for gaining the
favor of the people, and for attaining absolute power.
The law had the appearance of equity, and could not less
than be agreeable to the people, who mistutely it relieved.
But as the lands, which Caffius wished to have distributed
amongst the poorer citizens had been unjustly usurped by the
rich, the proposal alarmed the Senators, partly because they
were personally interested in it, and partly because they
apprehended its dangerous consequences. The people were
at first pleased; but when they understood that the Latins
were to partake with them of the advantage, they were
disgusted. To conciliate the Latins, and to engage their
concurrence in his favour, were the objects which Caffius had in
view; but the jealousy and dissatisfaction of the Roman
people disappointed his hopes, and terminated in his death.
As soon as he was found guilty of aspiring to the fo-
vereignty, and sentence was passed upon him, he was carried
by the Quellus to the Tarpeian rock, which fronted the
Forum, and thrown down from the top to the bottom in
the presence of the people; such was the customary punishment
of this crime amongst the Romans. His house was also
demolished and his estate sold by auction. With the money
arising from it a statue of brass was erected to Ceres. The
Plebeians, when they afterwards found that the decree of the Senate for the distribution of lands was not executed,
nor any measures adopted for this purpose, reproached them-
selves with the condemnation of Caffius, as an act of impru-
dence, and even of injustice. In the year of Rome
299, the subject of the agrarian laws, which had been sus-
pended for 30 years, was revived by the Tribunes; and
the people demanded, that as they shared with the Pa-
tricians in the labours and dangers of the commonwealth;
they might also share with them in the benefits accruing
from them. But a new partition would have been attended
with great difficulties; and it seemed impossible to proceed
in this business, without manifest injustice to many persons in
actual possession of the lands to be distributed, who had
really
really bought them, and without occasioning great and uni-
versal commotions in the commonwealth. For these reasons the Senate firmly opposed the establishment of the agrarian laws. About the year 577, C. Licinius Stilo, a rich plebeian, and tribune of the people, attempted to reform the overgrown power and wealth of the patricians, by propo-
sing a law, which should have distributed the citizens to the possession of 500 acres, and oblige him to surrender the surplus, in order to be divided among the poorer citizens. His motion, though enforced by the influence of his colleague in the tribunalship, L. Sextius, was overruled; and new commotions occasioned by the approach of the Gauls, having engaged the public attention, the business of the agrarian law was deferred for nine years; and about the end of that time it was again revived, and the law was established: this was called the Licinian law; and the mover of it was soon afterwards condemned by his own law. Having been found to possess more than 1000 acres, 500 of them were distributed among the poor citizens, and he was compelled to pay the fine, which he had annexed to the violation of the law. In consequence of this abuse, the law itself was abolished. In progress of time, however, the great and rich possessed themselves of almost all the lands that belonged originally to the state, either by purchase, or by paying a greater quit-rent, or by violence. Several regulations had been proposed for restraining these usurpations. At length other measures having been found ineffectual, (A. U. C. 610. Ante. Chrill. 134.) Tiberius Gracchus, urged by his mother Cornelia, proposed the revival of the Licinian law; and that the rich should quit the lands which they held contrary to the laws, after having received from the public the value of them; and that the citizens, whose circumstances required relief, should take possession of them. Many ob-
jections were urged against this mild and humane regulation, as Plutarch calls it: and the prosecution of it brought the commonwealth to the brink of destruction, and cost the two illustrious brothers, the Gracchi, their lives. Their efforts were of little avail, as the laws they laboured to introduce were gradually abolished after their death. Cicero, in speaking of the partition of lands and the remittance of debts, says (Offic. l. 2. n. 78.) "that to undertake to dis-
charge debtors by the authority of the magistrates, or to pafs the law so often proposed for the distribution of lands, is to fap the two principal foundations of the common-
wealth; of which the one is peace between the citizens, which could not subsist, if creditors were to lose their fortunes by the discharging of debtors; and the other justice, which is entirely subverted, from the infant no one can assume himself of continuing peaceable possessor of his right." The agrarian law of the tribune Saturninus, which was carried with violence A. U. C. 652, was of very short duration; and that of Rullus in the year 689, which was more exorbitant than any other, and gave up to a small number of citizens, under the pretext of relieving the poor, almost all the revenues of the commonwealth, afforded Cicero an admirable opportunity of displaying his eloquence in ex-
ploiting it, and inducing the people to reject it. The exordium of his oration on this occasion has been much ad-
mired. Cic. II. in Rull. The agrarian law of Cæfar was pre-
fented to the Senate in the beginning of his consulsiphip, A. U. 693; and he urged in its favour, that a distribu-
tion of lands among the poor citizens was altogether usefod, were necessary to deliver the city from a mul-
titude of people with which it was overburdened, and often gave rise to seditions; to repeople and cultivate several parts of Italy, which were abandoned; to recompence the soldiers who had served the commonwealth, and to give subsistence to many citizens who wanted it. He proposed the execution of it in the mildest and most moderate manner; and that 20 commissioners should preside at the distribution of the lands, excepting himself out of the number. Not-
withstanding these specious pleas, Cæfar inveighed loudly against the project of Cæfar, alleging that he did not so much apprehend the division of the lands, as the wages that would be required of the people by those who sought to inveigle them by this pretest. Cato was imprisoned for his opposition; and when another senator was asked by Cæfar why he departed before the Senate broke up, he replied, "because I had rather be with Cato in a prison, than with you in the Senate." Cæfar appealed to the people; and having engaged the concurrence of Pompey and Crassus, the reliance of Bibulus, Cæfar's colleague in the consulsiphip, and the vehement opposition of Cato were ineffectual. The law was authorized by the suffrages of the people. Cicero acquiesced in this measure, by observing a kind of neutrality; and argues to this purpose: "Let us remain neuter, as if buried in a house in the country. Cæfar hopes that I will second him and invites me to it. See the advantages I shall gain by taking this party; the friendship of Pompey, and even that of Cæfar, if I desired it; a reconciliation with my enemies; the peace of the mul-
titude; and the assurance of quiet in my old age: but after the conduct I have maintained in my consulship, and the principles which I have maintained in my writings, ought not my rule to be this maxim of Homer (II. M. 243), the belt of all councils is to defend one's country?" Cic. ad Attic. ii. 3. In persuading Cato to give up his resistance to this measure, he conjures him to consider, "that if Cato has no need of Rome, Rome has need of Cato." Cic. pro Sext. p. 61.

Several have pleaded for the necessity of agrarian laws among us. William Sprigg, or, as some say, Fr. Of-
borne, has written expressly on this subject. See also the Supplement to Dr. Price's Observations on Reversionary Payments, &c. p. 381.

But the author who seems to have entered most deeply into the nature and use of agrarian laws, is Harrington; he shews that the balance of property in a state cannot be fixed but by laws, and the laws whereby such a provision is made are agrarian laws. Now these are necessary to the stability of government, because governments will, according to the diverse balance of property, or of divers or contrary na-
tures, that is, monarchical or popular. Thus monarchy re-
quires of the standard of property, that it be vail or great; and of agrarian laws, that they hinder recees or diminution, at least in so much as is thereby entailed upon honour. But popular government requires, that the standard be mo-

derate, and that its agrarian laws prevent accumulation.

This author thinks, that in a territory not exceeding England in revenue, if the balance be in more hands than 500, it is declining from monarchy; and if it be in fewer than 5000 hands, it is swerving from a commonwealth.

The same writer defines an equal agrarian, a perpetual law, enjoining and preferring the balance of dominion by such a distribution that no one man, or number of men, within the compass of the few, or arifolocacy, can come to overpower the whole people by their posseffions in lands.

He also observes, that the people of Rome, by striving for an agrarian, throve to save their liberty: and that commonwealth, through want of such a law, or the non-ob-

servance of it, came to ruin.

In the Grecian cities, the defect of an agrarian was sup-
plied by *oφθαλμος*.
In Venice, the council of ten, and the officers of pomp, restrain those who might be too powerful; and these two orders in a commonwealth, where the gentry have but small estates in land, are as much as needs be in lieu of an agrarian.

Some German republics have no more to supply the places of this law than these estates devolving are divided among the children.—And the same law would establish an agrarian in England.

Agrarian laws may be framed different ways, as by entailing the lands upon certain families, without power of alienation in anyone, as in Israel and Lacedemones; or, except with leave of the magistrate, as in Spain. But this, by making some families too secure, as those in possession, and others too despairing, as those not in possession, may render the whole people less industrious.

Therefore Harrington prefers a law regulating estates, so that no man shall have above two thousand pounds a year in land; and that the estates of those who exceed this proportion shall be divided in descendence to their children, till the greatest share do not exceed two thousand, per annum. This is the rule he lays down for his commonwealth of Oceana, by which he means his scheme for the government of England.

By this law, Harrington intended that the property of land in England should never fall into fewer hands than five thousand; as he computes the rents of this country to be ten millions. But if these rents, as is probable, amount now to twenty millions, it would follow that, by our author's rule, the land could not never be in less than fifty thousand hands, which, according to his system, must effectually secure the liberties of the people.

It would exceed the limits of our design, to enter into the full detail of all the reasonings of this ingenious author on the subject of agrarian laws; we therefore refer to his works: Toland's Edition, 410. 1771. See also Government, Property, &c.

AGRARII. See Agriment.

AGREDADA, in Geography, a town of Spain, in Old Castile, at the foot of Mount Cayo, where the ancient Gracchus's flood; three leagues south-west from Tarazona, N. lat. 41° 53'. W. long. 2°.

AGREDADA, is also the name of a town in the kingdom of Popayan, in South America; forty miles north from Quito.

AGREDADA, Mary of, in Biography, a deluded fanatic, or a bold impostor, was born at Agreda, in Spain, in 1602, took the veil in 1629, in a convent founded by her father and mother, was elected superior in 1627, and died in 1665. In 1637, she began to weave the life of the Holy Virgin, in consequence, as she pretended, of orders received from God and the Virgin; and when it was finisht, she annexed to it an ascription, that its contents had been communicated to her by divine revelation. This fanciful work was translated by Father Crozet, and formally condemned by the doctors of the Sorbonne. The translation, in three volumes, 4to, was published at Brussels, in 1717. Gen. Diction.

AGREEMENT, Agreementum, in Law, a joining, or putting together, of two or more minds in any thing done or to be done.

Of this there may be three forts.—The first, an agreement executed at the beginning, mentioned in the statute of 25 Edw. III. cap. 3, which says, "That the goods "bought by forestallers, being thereof attainted, shall be "forfeited to the king; if the buyer thereof have made "greet with the feller:" where the word greet otherwise called agreement executed, signifies payment for the things, or satisfaction.

The second is an agreement after an act, that is, where one does an act, and another agrees and affirms thereto afterwards.—The third is an agreement executory, which is, when both parties at one time are agreed that such a thing shall be done in time to come. It is called executory, because the thing is to be done afterwards.

Agreements are to be in writing, by Stat. 29 Car. II. cap. 3, of frauds and perjuries.

AGRESSES, or Ogresses, in Herodotus, the same as Pellets.

AGRESTA, in the Materia Medica, an unripe grape; otherwise called embas, and uva aertis, by the French veuirs. Agrilex are cold cooling, deprecated, and refrigerant; they temper the acrimony of the bile, and cheer the heart. Eaten plentifully, they have been found to destroy worms. The term is sometimes also applied to the juices of this fruit, more properly called amphiacton.

AGRESTI, livio, da Furli, was a painter of history, who died in 1580. He was a disciple of Ricciino del Vaga, and commanded by Vafani, for the richness of his invention, the goodnes of his colouring, and the correctness of his design. Pilkington.

AGREVE, in Geography, a small town of France, in Vivarais, at the foot of the mountains.

AGRI, in Ancient Geography, a people placed by Ptolemy, in European Sarmatia.

AGRIA, a name given to holly; and also to a malignant puftule, of which there are two forts. The one is small, with a roughness, redness, and flight corroboration of the skin; it is of a round figure, its centre is smooth, and it spreads slowly. It is cured by rubbing it with falling fiptulate. The other foot ulcerates with a violent redness and corroboration; so as to make the hair fall off; it is of an unequal form, and turns leprous. It is cured by poultices of fellosity of the wall.

AGRIA, or Eger, in Geography. See Erlace.

AGRIAMELOS, formed of αγριος, wild; and αμπελος, a vine; the wild vine; and, according to Gerard, the black briony.

AGRIANA, in Ancient Geography, a town of Cappadocia.

AGRIANES, a small river of Thrace, which rose north of Heraclea, and discharged itself into the Hebrus. This was also the name of a people near mount Pagirus, in Thrace.

AGRIANIA. See AGRONIA.

AGRICOLA, Cæsarius Julius, in Biography, an illustrious Roman, was born on the 13th of June, in the second consulship of Caius Caesar, A. D. 38. Tacitus dates his birth, in the third consulship of Caius; but as he died in his 56th year, by the fame historian's account, he must have been born sooner. He was a descendant of the colony of Foro Julii or Frejus, in Provence, the place of his nativity; and his grandfathers, on both sides, were of the equestrian rank. His father, Julius Gracianus, was of the order of senators, and distinguished by his wisdom and eloquence. His character is mentioned with respect by Suetena, (de Benef. lib. ii.) and he is cited as a writer by Pliny, tom. ii. p. 710. Vid. Index Auditorum, tom. i. p. 61. Ed. Harle. Cæsareus wished him to accuse Silanus; and because he refused, caused him to be put to death. Agricola being thus deprived, at an early age, of the instruction which his father was so capable of giving him, the care of his education devolved upon Julia Procellus, his mother. By her he was removed, when a child, to Marcellus, which was then esteemed the Athens of Gaul; where the provinces of Greece was happily blended with the provincial simpathy.
of manners. Here he manifested the vigour of his mind, by an allusive application to the study of philosophy; but his mother, conceiving this kind of science to be inconsistent with the active life to which she had appointed, moderated the ardour with which he pursued it. The scene of the first military service in which he engaged was Britain; and the General, to whose immediate care he was entrusted, was Suetonius Paulinus, who was then employed in the arduous business of recovering the provinces that had revolted from their subjection to the Roman power. His conduct secured the esteem and patronage of this distinguished commander; and the office of tribune of a legion, to which he was appointed, afforded him an opportunity of gaining that knowledge of his profession, and that acquaintance with the country, which laid the foundation of his future celebrity. On his return to Rome, in pursuit of the honours that belonged to his rank, he married Domitia Decidiana, a lady eminently distinguished by her virtues, as well as by her noble birth; and this domestic connection was a source of uninterrupted felicity. Having discharged the office of quaestor, in the rich province of Asia, under Salvinus Tittianus, brother to Otho, who was afterwards emperor, with a probity which no temptation could corrupt, he spent several years in that state of inactivity, which was most secure and most eligible under a prince so fopishious and cruel as Nero. In the mean while, he performed the duties of praetor and tribune of the people, with a degree of prudence, which led him to avoid both the extremes of parsimony and prodigality.

On the accession of Galba, Agricola was charged with a commission to take an account of the property belonging to the temples, which Nero had purloined; and in the execution of this business he discovered what was attainable, and prevented further depredations. In the commotions that succeeded the death of Galba, he seems to have taken no part. At this time (A.D. 69), he was much disaffected by the news of his mother's death, who had been murdered at Intemelii, in Liguria, by the troops belonging to the emperor Otho's fleet, and whose estates they had plundered. Whilst he was preparing to pay the last tribute of respect to an honoured parent, and to redress the injury which his patrimony had sustained, he received information that Vespasian had assumed the empire, and immediately determined to attach himself to his cause. From Liguria, he probably hastened to Rome; and he was appointed, by Mucianus, to the command of the 20th legion in Britain, which had manifested some signs of disaffection and mutiny. Having, by his wife and moderate conduct, secured the obedience of the legion, he continued for some time in the country, under the government, first of Vettius Bolanus, and afterwards of Petlius Cerialis. Under the former governor, who was meek and peaceable, he suppressed his martial ardour, and renounced what was specious for that which was really useful; and under the latter, who was active and enterprising, he was prompt in executing the orders he received, and yet modest in relating his successes; so that he thus acquired fame without envy. When he returned to Rome, Vespasian created him a patrician, and invested him with the government of Aquitania, in Gaul, which then comprehended the whole country between the river Loire, and the Pyrenean mountains. Here he performed the duties of a civil governor for three years, in a manner which commanded universal esteem. He was recalled by Vespasian, A.D. 77, and made confid with Domitian. During the year of his confidship, he contracted his daughter to Tacitus, the historian, who has furnisbed the memoirs of his life; and at the expiration of his office, he was admitted into the college of pontiffs, and appointed governor of Britain, which he retained, in order to compose the tumults of this distracted province. Julius Frontinus, his predecessor, was a man of abilities, and had conquered the warlike nation of the natives.

On the arrival of Agricola, he found the Ordovices, or inhabitants of North Wales, in a state of insurrection. At a late season of the year, and in opposition to the timid counsel of some of his principal officers, he marched against them, by a signal defeat almost extirpated the nation, and then reduced Mona, or the Isle of Anglesey. His next object was to connect those alliances which had occasioned the hostility of the Britons, and to consolidate their attachment by equitable and humane measures. He also softened their manners by inducing them to cultivate the arts of peace, by providing for the liberal education of the sons of their chieftains, and by promoting the use of the Roman habit and language. In return for their liberty, of which they were deprived, he endeavoured to establish amongst them tranquillity. Luxury, says Tacitus, soon followed; and the Britons called those qualities politeness and good breeding, which, were, in fact, the badge of their servitude.

Agricola, having secured the southern part of the island, prepared, in the third year of his government, to extend his arms northwards; and having spread the ravages of war so far as the Frith of Tays, he proceeded to secure his conquests by a chain of fortresses, in the arrangement of which his military skill was eminently displayed. This chain extended from the Clyde to the Frith of Forth; and he thus separated the conquered part of the island from the fierce and unsubdued tribes of the north. His fifth campaign was devoted to the conquest and security of those parts of Scotland which lie over against Ireland, to which island he directed his views, and which, after his return to Rome, he avowed his purpose of subduing and retaining. The operations of the sixth campaign were principally directed against those who inhabit the eastern parts beyond the Frith of Forth; and in these, the army was accompanied by the fleet, which explored the inlets and harbours, and enclosed the natives on all sides. Agricola was the first Roman general that ever employed a fleet against the Britons, who had always looked upon the sea as their last resource, if ever they should be conquered by land. That resource was now taken from them; and they no longer knew what defence to make against an enemy, who was master of both elements. However, the Caledonians assembled in great numbers, and made a fierce attack on one of the Roman camps; but after a temporary success, they were repulsed with great loss. But they determined to persevere, and thought of nothing but renewing the war. Accordingly, they closed this campaign with aiming their youth, providing places of safety for their wives and children, and forming alliances for their future succour. For the seventh campaign, Agricola, as well as the Caledonians, made great preparation. The Grampian hills were the scene of a decisive engagement. Here the natives, forming an army of more than 30,000 men, under the command of Galgacus, made their stand; and here also Agricola, having disposed his troops in the most advantageous position, waited the defeat of the enemy from the hills.

Each General addressed his army previously to the battle, and their speeches, which are recorded by Tacitus, were re-echoed with shouts of applause. For a long time the victory was disputed, but at last the Romans prevailed, and with
with a small comparative loss of 3,200 men, killed 10,000 of the Caledonians, and dispersed the rest. Agricola, after receiving hostages from some of the tribes, withdrew his army slowly within the Roman limits, and ordered the commander of his fleet to circumnavigate the island. Whilst Agricola was extending his conquests in a distant province, Domitian succeeded to the empire, and became jealous of his reputation and power. He ordered, however, the insignia of triumph to be decreed him by the senate, together with a statue, and all the honour which a private man could receive under the emperors, in lieu of the triumph itself, to which no one but the prince was now entitled. At the same time the emperor recalled Agricola, and under a pretence of favour, propagated a rumour that he intended to appoint him to the government of Syria. Agricola peaceably surrendered the province to his successor; and when he arrived at Rome, he entered the palace by night, in order to avoid tumult, and to prevent any occasion of offence to the jealous Domitian, where he was received by the emperor with a cold salutation, and then suffered to mingle with the crowd of courtiers, and afterwards to retire, unnoticed and unrecompenced, into private life. His popularity was dangerous to him in this tyrannical reign; but his prudence and moderation enabled him to escape uninjured. In this private manner did he pass nine years of his life. At length the year arrived in which the proconsuls of Asia and Africa were to be drawn by lots; and one or other of them must, in due course, have fallen to him. The emperor, dreading the union of such influence as this station would give, with his extraordinary talents and reputation, contrived by his emissaries to induce him to request being excused from the office, and to plead as an apology, his love of retirement and ease. The artifice succeeded, and the emperor acted his part in granting the request of Agricola, with his usual haughtiness and arrogance: nor did Domitian give him the present which was usually bestowed on such occasions. Soon after this event, Agricola was seized with the disorder which terminated in his death. Common rumour attributed it to poison; and the official inquiries of Domitian, during its progress, increased the suspicion, though it was probably unfounded. He died, when collega and Priscus were consuls, August 23, A. D. 93, in the 56th year of his age, leaving a widow and one daughter, who was the wife of Tacitus. He left a son, at a very early age, while he was in Britain. His death was universally lamented. The portrait which Tacitus has drawn of his father-in-law, with his pen, excels (says Crevier) all that the pencil of the greatest painters, or chisel of the ablest sculptors, could have achieved to perpetuate the memory of Agricola. He was unwilling to let posterity be ignorant even of his form and person: he tells us, that he was well made, though not tall; that his countenance was rather mild than florid; that candour and probity were pictured in his face; that none could see him without loving him; and that all were delighted to find the great and the good man united in him. He was not ambitious of polishing a large fortune; but he enjoyed such an one as was sufficient for a noble and generous mind. He had tasted all the satisfactions which result from the conquis of having acted suitably to the obligations of his superior stations; and he had been veiled with all the ornaments and titles, which, however misplaced in others, were in him the rewards of real merit. He might be style a happy man, as Tacitus observes, since he escaped the miseries in which the Roman empire was soon after involved; and died while his wife and daughter were living, in the possession of his dignity, in the height of his fame; and with all his relations and friends safe and prosperous. His death was pathetically lamented by Tacitus, in an elegant apopthegm to Agricola himself, of which no translation can do justice to the energy and conciseness of the original. "What aggravates mine and your daughter's sorrow," says Tacitus, "besides the los of you, is, that we had not the opportunity of fitting you in your lifetime, supporting you in your old age, and enjoying the satisfaction of your last looks and embraces. Then we should have received from you those commands and counsels, which would have been perpetually fixed on our memory. This is a great cause of our regret: you were lost to us by four years' absence from us. It is certain that you, child of fathers, wanted nothing suitable to your character and circumstances, since your tender wife was present with you; but you should have been lamented with other tears besides her's; and in your last moments your eyes were bereaved of the sight of some who were very dear to you. If there be any retribution for the manes of the virtuous; if, as philosophers think, the souls of the great are not extinguished with their bodies; may you rest in peace, and recall us your family from too weak and womanish lamentations for your death, to the contemplation of your virtues, which it is very unreasonable to regret. Let us rather honour you with a just admiration. This is the true honour, and the best influence of piety, which we your nearest relations can shew you. This is what I shall represent to your daughter and wife, that the former would revere the memory of your father, and the latter that of her husband, by revolving all his actions and words in their minds, and reflect more upon the character and idea of his soul than those of his body. Not that I would, in the least, oppose erecting to you images of marble or brass; but as the bodies of men are perishable and mortal, so likewise are their statues: but the form of the mind is eternal, and can never be preferred or expressed by any foreign materials or art, but only by the real character and behaviour of the person who imitates it. Whatever we loved and admired in Agricola still remains, and will for ever remain in the minds of men, and in the everlasting fame that attends noble actions. Many of the ancients will be sunk in oblivion, without the least remain of fame or reputation; but Agricola will be transmitted to posterity, and survive in immortal honour." Tacitus' Vita Agricola apud Op. tom. ii. p. 495. Ed. Ern. Crevier's Roman Empire. vol. viii. p. 346-388. Gen. Dict. Agricola, Christopher Ludwiger, a landscape and portrait painter, was born at Ratibon, in 1657, and died there in 1719. He engraved a landscape, in which is represented the fable of Diana and Acteon. Strutt. Agricola, George, was born at Glauchau, in Meissen, (Meilien) in Upper Saxony, the 24th March, 1494, and received the principal part of his education in Italy, where he applied himself diligently to his studies, particularly to the study of medicine. Returning to Germany, he settled at Joachimsthal, in Meissen, and practiced phyric there, with considerable reputation and success. He then removed to Chemnitz, that he might be near the rich mines in Saxony, the scene of his future greatness; as from the perfect acquaintance he there acquired of the nature of metals, proceeded those rich stores of knowledge which are scattered in profusion over his numerous works on mineralogy. He is said to have told the Dukes of Saxony, that their subterraneous treasure for exceeded in value all they possessed on the surface of the earth. He was very little, however, assisted by their bounty, furnishing nearly the whole of the expenses of his labours and his experiments from his own fortune. The treatises he wrote on the subjects of metals and mineralogy, are composed in an elegant Latin style: they abound in curious information, and were, for a long time, considered as standard works. He maintained his
attachment to the old religion, though he lived among Lutherans. He died at Chemnitz, November 21, 1555, and was buried at Zeitz; the bigotry of his townsmen not allowing him a grave among them. G. Fabricius, his intimate friend, composed the following epigram on his works:

"Viderat Agricola, Phebo monstrante, libellus, Jupiter, et tales edidit orae fones. Et fratis pandet tertia regna met."

His works on mines, published originally in parts, were collected and printed together, at Basle, 1546, in folio. They are chiefly comprehended under the following titles: "De ortu et caufis subterraneorum;" "De Natura eorum que effluant ex terra;" "De Natura Foillium;" "De Medicinis Foillibus;" "De Subterraneis Animantibus;" and "De veteribus et novis Metallis." His great work, "De re Metallica," was printed at the same place, 1561, also in folio; "De Menduris et Ponderibus, Romannorum et Graccorum, with additions referring to modern times, 1570, folio; "De Pelle Libri tres," Basle, 1554, 8vo; "Opus De Foillibus, cum Annotationibus Georgii Fabricii," 1657. He also wrote other tracts on political and theological subjects.

Agricola, John, a Saxon divine, was born at Eisleben, in Germany, April 20th, 1492. Mosheim describes him as an eminent doctor of the Lutheran church, though chargeable with vanity, presumption, and artifice. He was minister, and principal of a college in his own country; and attended the elector of Saxony to the diet of Spire, in 1526; and to that of Augsburg, in 1530. Urged by ambition, he quitted his own country in 1536, and went to Wittenberg, where he settled as a professor and minifter. Although he wrote against Melancthon, in 1527, he was not much noticed before the year 1538, when he took occasion, from the doctrine of Luther, concerning the ground of man's acceptance and salvation, to declaim against the law; maintaining, that it was neither fit to be proposed to the people as a rule of manners, nor to be used in the church as a means of instruction; and that the gospel alone was to be inculcated and explained, both in the churches and in the schools of learning: and he thus became the founder of the sect of Antinomians. Luther, who had been before his friend, attacked him with great severity; and his accusations were supported by the divines of Wittenberg. As length, by the interposition of the electors of Saxony and of Brandenburg, Agricola was induced to publish a recantation of his errors, and to retract the injurious reproaches which he had cast upon Luther. Mosheim says, this recantation does not seem to have been sincere; as he returned to his errors, when his fears were dispelled by the death of Luther, and gained profyde to his extravagant doctrine. Agricola was employed by Charles V., in 1548, in conjunction with other persons, and liberally rewarded, in composing the Interim. It is said, that he wanted to restore the use of holy oil in the cafe of the sick; and that he attributed a supernatural efficacy to it. Some have said, that he was a Papist; and others charge him with being a man of picqueur, and with maintaining all religions to be in themselves really indifferent. When he left Saxony, he was patronized at the court of Brandenburg, by the elector Joachim II. whose favour he enjoyed till his death, which happened at Berlin, in 1566. His "Explication of German Proverbs," and his "Commentaries upon St. Luke," are the principal of his works, Gen. Dict. Mos. Eccl. Hist. vol. iv. p. 521, &c.

Agricola, Martin, a theocratic and practical musician, who was chanter of Magdeburg, and flourished about the middle of the 16th century. He died, June 10th, 1556. His works are two treatises on music, written in German verse, and published at Wittenberg, in 1528 and 1529; the latter of which, viz. "Mufica Instrumentalis," was re-published, with large additions, in 1545; and contains an explanation of the fundamentals of music, together with a description of the instruments used in his time, and the method of playing upon them; and an account of the division of the monochord, and of a temperature for the organ and harpichord; a tract "On Figurate Music," and a brief treatise "De Proportionibus;" a treatise, intitled, "School in Musica planum Wecessent Philomantis ex variis Musicorum scriptis por Magdeb. Schola collectis;" a larger work, intitled, "Melodie Scholasticae sub horarum intervalli decantaude," published at Magdeburg in 1682; and a posthumous work, intitled "Duo Libri Mufices continentem compendium Artis, et illustria Examplar., &c." published in 1561. His several treatises were designed for the instruction of beginners in the study of music. Hawkins's Hist. Music. vol. ii. p. 83.

Agricola, Michael, a Lutheran minister at Abo, in Finland, was the first who translated the New Testament into the language of the country, and thus contributed to the propagation of Lutheranism. It was printed in 1548. He died in 1556. Gen. Dict. Agricola, Robertus, was born in the village of Bafion, near Groningen, in Friesland, in the year 1442; and distinguished by his love and pursuit of literature. Having finished his education at Louvain, where he maintained an exemplary character for sobriety and application, he declined the professor's chair, which was offered him, and visited France and Italy for farther improvement. At Ferrara, he studied Greek, and availed himself of the lectures of philosophy that were read by Theodore Gaza; and at the same time taught Latin, which he was able to write with so much purity and elegance as to rival Guarni, in profe; and the Strozzi, celebrated writers at that period, in verse. After a residence of two years in Ferrara, he returned to the Netherlands, about the year 1477; and, at Duvalent, had an interview with Erasmus, whole future celebrity, though he was then a boy of ten years old, had the kind of independence, and his solicitude for securing leisure to indulge his literary talents, induced him to forego several offices of honour and profit, which he might have obtained by the favour of the emperor Maximilian I. At length, in 1482, he settled in the Palatinate, residing sometimes at Heidelberg, and sometimes at Worms, and delivering occasional lectures in polite literature. The Elector Palatine was his auditor; and in compliance with his request, Agricola composed, "An Abridgment of Ancient History." He was also much respected by John d'Alburgh, bishop of Worms, whom he had instructed in the Greek language. About the 40th year of his age he directed his thoughts to the study of divinity; and by the assistance of a Jew, made considerable progress in the Hebrew language; but death put a stop to his literary pursuits, at Heidelberg, in 1485. Although his natural temper, which was characterized by a fondness for cafe and leisure, was altogether inconsiderable with the active exertions of a reformer, he seems, however, to have deplored the darkness of the church, and to have had some glimpse of the light which illuminated it in the next century. The indolence of his disposition prevented his entering into the married state, though he professed an attachment to the female sex; and took pleasure in amusing them with elegant verses, and with musical performances, both vocal and instrumental, in which he excelled. To
Agnologia belongs the praise of having refreshed the Greek learning to Germany, and of having contributed, in an eminent degree, to the revival of literature and classical taste, in an age which required his exertions, and when they were highly useful. Erasmus, in his Adages, calls him "a man truly divine." Bayle says, that Italy, which at that time treated everything as barbarous that was on this side the Alps, produced no genius comparable to what Friedland could boast of in her Agricola. A learned Venetian, in an epitaph, ranks Agricola with the most celebrated names of Greece and Rome. His works, of which the principal is his treatise entitled, "De Inventione Dialcetica," were collected by Alard, in two volumes, 4to, and printed at Louvain, in 1516; and by Oecco, at Cologne, in 1559. Gen. Dict.

AGRICULTURE, the science which explains the art or means of cultivating and improving the earth or soil, so as to render it fertile and productive. The term seems to be formed from the Latin words ager, field, and cultura, culture, or tillage, from colere to till.

The art of agriculture, in this view, comprehends the nature of climate and soil, the methods of performing the different operations that are requisite in the cultivation and improvement of arable and grass lands, as including, the making of fences, as hedges, ditches, wells, railings, palings, gates, draining, paling, and burning, woring, scaring, fallowing, ploughing, mowing, sowing, harrowing, sowing, hoeing; the growing and preferring of different sorts of crops, as wheat, rye, barley, oats, beans, peas, potatoes, turnips, carrots, cabbages, beets, hemp, flax, oats, madder, &c.; and the raising of various kinds of seeds, as rape, mustard, &c.; rotation of crops, reaping, mowing, felling, threshing; the management of artificial and natural grafts, as clover, lucerne, sainfoin, tares, vetches, &c.; the converting of arable lands to grass, meadows, pastures, hay-making; the cultivating and preserving of fruits, as apples, pears, cherries, &c.; and the preparation of fruit liquors, as cider, perry, &c.; orchards; the planting of timber-trees, wood, coppices, plantations, &c.; the inventing of implements, as ploughs, harrows, rollers, hoes, drills, wagons, carts, mills, looms, &c.; the construction of farm-buildings, as barns, offices, sheds, cottages; the nature of furms, tithe, boiser, &c.;

In a more extensive sense it also includes the breeding, rearing, feeding, and general management of all sorts of live stock, as cattle, horses, sheep, hogs, sheep, rabbits, poulter, pigeons, bees, &c.; the conducting of the various processes and preparations which have a relation to the different products obtained from them, as milk, butter, cheese, or what are generally termed case-making and dairying; and hitherto, as connected with political economy, the construction of roads and canals, the forming of embankments, and the nature of weights and measures. Full accounts and explanations of these will be given in the course of this work, under their respective heads.

Gardening may likewise be considered as an improved branch of agriculture.

Among the Ancients the husbandry was frequently understood by the term Georgica.

This useful and important art, though less splendid than many others, appears to have attracted the notice of mankind in the earliest periods of the world; and this is not indeed very extraordinary, when it is considered that the excellence and prosperity of them at such periods must almost have solely depended upon it. In the earliest stage of society, men, as hunters, must have found, from experience, that the mode of procuring subsistence by the bow or the chaff was attended with infinite toil as well as hazard, and precarious in the event; and therefore, not by any means calculated to supply the wants or increase the comforts of social life. In the pastoral state also, which may be regarded as the second step in the advancement of society, men must soon have discovered, that though more certain of subsistence, and less exposed to danger and hardships, their herds and flocks were liable to innumerable accidents, and that they might at once be reduced to all the miseries of famine.—Under such circumstances and apprehensions, it was therefore natural for them to think of some means by which they might, with more certainty, procure the necessaries of life. For this purpose they would naturally turn their attention towards the earth, and discover that from it might be drawn whatever could render life comfortable. Experience would likewise quickly inform them, that, by due cultivation of the soil, fruits, and grain of various kinds, fit for nourishment, might be procured in abundance; but that, by neglecting this art, the natural fertility of the soil, the warmth of the sun, and the regular revolutions of the seasons, would be in a great measure unavailing.

What may be termed the art of husbandry having commenced in this way, it is easy to perceive that it must have been extremely simple in these early ages, and its advances towards perfection and value almost imperceptible. By most of the eastern nations agriculture seems to have been particularly attended to and encouraged from the most early periods. That the Japanese were extremely interested in its promotion is evinced by the great care taken in collecting and preserving all sorts of manures; and among the Chinese it has constantly received the distinguished regard and protection of their princes and nobility, and been considered as the most honourable and important of all employments. The use of the drill, which has lately been introduced and adopted in European countries, is said to have been long known and employed by them.

The Chaldeans are found to have carried this valuable art to a considerable degree of advancement; as they cultivated their lands with great affluence, and enjoyed the pleasing satisfaction of receiving from their fields plentiful harvests. The Egyptians also, who, from the fertility of their country, caused by the annual overflowing of the Nile, raised prodigious quantities of corn, were so sensible of the blessings resulting from agriculture, that they ascribed the invention of it to Osiris, and even carried their superstitious gratitude so far, as to worship those animals that laboured in tilling the ground. The Phcenicians were also famous for their skill in agriculture; but finding themselves too much confined in their native country, by the conquests of neighboring nations, they spread themselves through the greater part of the islands of the Mediterranean, and carried with them their knowledge of husbandry. The Carthaginians following the taste of their ancestors, are said to have applied themselves affably to the study of agriculture. Nabo, their famous general, wrote no less than twenty-eight books on that subject, which Columella tells us were translated into Latin by an express decree of the Roman senate; and Servius adds, that Virgil used these books as a model when he wrote his Georgics. The art of trowing corn, and the tillage of land, were probably invented in Sicily; as that island was very fruitful in corn, and agriculture was there esteemed so honourable an employment, that even their kings did not disdain to practice it with their own hands. The Athenians, who were the first people that received any system of polite arts, taught the use of corn to the rest of the Greeks; they also taught them the manner of cultivating the ground, and preparing it for food. The Greeks soon perceived that bread was more wholesome, and its taste more delicate than acorns, and accordingly thanked the gods for such an unexpected
and beneficial present. After this, the Athenian kings thinking it more glorious to govern a small state wisely, than to aggrandize themselves by foreign conquests, withdrew their subjects from war, and employed them freely in cultivating the earth. This constant application carried agriculture to a considerable degree of advancement, and reduced it into a more perfect art.

Heciod, who is generally thought to have been contemporary with Homer, was the first among the Greeks who wrote on this subject. He called his poem "Weeks and Days," because agriculture requires an exact observance of seasons and seafons. The other eminent Greek writers upon agriculture are Democritus of Abdera, Socraticus, Xenophon, Tarentinus, Architas, Anitotle, and Theophratus, from whom the art received considerable improvements, as also from Hieron, Epicharmus, Philometer, and Attalus.

The ancient Romans esteemed agriculture such an honourable employment, that, in the earliest times of the republic, the highest praise that could be given to a man, was to say of him, that he cultivated well his own field of ground. The most illustrious senators applied themselves to this profession; nor had they either splendour or majesty, but when they appeared in public. And their greatest generals, at their return from the toils of war, from taking of cities, and subduing of nations, were impatient till they were again employed in cultivating their lands; and thought it no disgrace to follow the plough, though they were at the same time prepared to serve the wants of the republic, attend her councils, or put themselves at the head of her armies. It must indeed be allowed, that when the Romans became tainted with the luxury of Asia, they gradually lost the noble simplicity of their ancestors, and employed their slaves in the severer labours of a country life. But though they did not themselves hold the plough, yet even men of consular dignity looked upon it as a reward for their public services, when they obtained leave to retire into the country; and were equally respected when over-looking their farms, as when seated in the chair of magistracy. M. Cato, the censor, that illustrious Roman general, orator, politician, and lawyer, after having governed provinces, and subdued nations, did not think it below his station to write a large treatise on agriculture.

This work, according to Servius, was dedicated to his own son, and was the first Latin treatise on that subject. It has been handed down to us, it is said, in all its purity, and in the same manner that Cato wrote it. Varro composed a treatise on the same subject, but on a more regular plan. This work is embellished with all the Greek and Latin edition of that learned author. Agriculture also received great improvements from the two Safenarles, and likewise from Scorfa, Tremelius, and M. Terentius. Virgil has adorned it with the language of the muse, and given it majesty by his verse. He has finely embellished those precepts of husbandry which were left by Heciod and Mago.

Columella, who flourished in the reign of the emperor Claudius, wrote twelve books on husbandry, which contain a variety of interesting facts and observations. He was a native of Boetica, in Spain, and had devoted much time to the study of rural affairs.

From this period till the reign of Constantine IV. husbandry appears to have been in a declining state, when that wise emperor caused a large collection of the most useful precepts relating to the art to be extracted from the best writers, and published under the title of Geoponics. Some say he made this collection with his own hand. Nor is this at all improbable, as it is well known that, after he had conquered the Saracens and Arabsians, he not only practised, but studied the arts of peace, fixing his chief attention on the advancement of agriculture.

But from the time of Constantine IV. till about the year 1478, it lay in a kind of dormant and neglected state, when Crelesino, an Italian, revived it by publishing an excellent performance on the subject at Florence. He was soon followed by several of his countrymen, among whom Tatti, Stefano, Augustino Gallo, Santovina, Lauro and Tarello, to be particularly noticed.

In the mean time, in our own country, Fitz Herbert, judge of the Common Pleas, shone with unrivalled lustre in the practical parts of husbandry. He published two treatises on this subject; the first, which was entitled "The Book of Husbandry," appeared in 1534; and the second, called, "The Book of Surveying and Improvements," in 1539. As the observations and instructions contained in these works were the result of much experience, they excited great attention to the subject, and soon raised a spirit of emulation in his countrymen, in consequence of which many treatises of the same kind successively appeared; but time has deprived us of many of these writings, or at least they have become so scarce, as only to be found in the libraries of the curious.

About the year 1669, France made considerable efforts to retrieve husbandry, as appears from several large works, particularly Les Moyens de devenir riche, and the Comptes by Barnard de Paflify, an indigent monk; Le Théâtre d'Agriculture, by de Serres; L'Agriculture et Maison Rustique, by Meifs. Etienne and Liebault, and lately Le Cours Complet d'Agriculture, by M. L'Abbe Robier, &c.—The Flemings, about the same period, were more attentive to the practice of husbandry than the publishing of books on the subject; their attention being doublets to carry on a private lucrative trade, without instructing their neighbours in their modes of cultivation; hence it happened, that whoever was desirous of copying their method of agriculture, was obliged to travel into their country, and make his remarks upon the spot. Their principal idea of husbandry, which was indeed just enough, consisted in making a farm resemble a garden as much as possible. The adoption of such an excellent principle at first setting out, led them of course to undertake the culture of small estate only, which they kept perfectly free from weeds, by continually hoeing and turning the ground, and rendering it rich and productive, by manuring it plentifully and in the most judicious manner. When by this means they had brought the soil to a proper degree of cleanliness, health and vigour, they ventured chiefly upon the culture of the more delicate grases, as the surest mode of acquiring wealth in husbandry upon a small estate, without the expense of keeping many draught horses or servants; and the experience of a few years was abundantly sufficient to convince them, that ten acres of the best vegetables for feeding cattle, properly cultivated, would maintain a larger flock of grazing animals than forty acres of common farm grases. They also found that the best vegetables for this purpose were lucern, saffron, trefoil of most denominations, sweet fenugreek, buck, and cow-wheat, field turnips and spurrey. The political secret of their husbandry, therefore, consisted in letting farms on improvement. They also diversified with a few new sorts of manure. They were the first among the moderns who ploughed in living or green crops, for the purpose of fertilising the earth, and confined their sheep at night in large sheds built on purpose, whose floors were covered with sand or virgin earth, &c. which the shepherd carted away every morning to the compost dunghill. This useful and judicious practice has, since that period, been too little attended to by the practical farmer.
Our fatal domestic wars, during the reign of Charles I., changed the instruments of husbandry into martial weapons; but after the death of that unfortunate monarch, artful and arisocratic men crept into the confined offices of the nobility, gentry, and clergy; and as many of these new encroachers had risen from the plough, so they returned with pleasure to their old profession, being chiefly animated by a love of gain. Plattes, Hartlib, Blythe, and others, feized this favourable disposition of the common people, and encouraged it by writings, which have since had few to equal them; nor was Cromwell wanting in leading his affinities in this important business. Sir Hugh Plattes was one of the most ingenious husbandmen of the age in which he lived; and so great was his modelly, that all his works, except his Paradise of Flora, feem to be posthumous. He held a correspondence with all the lovers and promoters of agriculture and gardening in England; and such was the justice and honesty of his temper, that he always named the author of every discovery that was communicated to him. Perhaps no man, in any period in the history of the art, discovered, or at least brought into use, so many new foris of manure, as his account of the compott and covered dunghill, and his observations on the fertilizing qualities, contained in salt, street, earth, and the spoilage of dikes in great cities, clay, fossil's-earth, moonfish earth, dunghills made in layers, fist, hair, burned vegetables, malt-dull, willow-tree earth, soap boiler's ashes, marle, and broken pitchards, sufficiently demonstrate.

Gabriel Plattes may likewise be esteemed an original genius in promoting the improvement of agriculture. He began his valuable observations in the time of queen Elizabeth, and continued them through the reigns of James I. Charles I. and during the first three or four years of the commonwealth. But notwithstanding the great merit displayed in his writings, the public shamefully suffered him to starve and perish in the streets of London, not having a shilling upon his back when he died.

Samuel Hartlib, a celebrated writer on husbandry, was highly beloved and esteemed by Milton, and other ingenious men of that time. In his Preface to a work commonly called his Legacy, first published in the year 1656, he lamented that no public director of husbandry was established in England by authority; and that we had not adopted the Flemish method of letting farms upon improvement. These observations of Hartlib procured him a pension of one hundred pounds a year from Cromwell, who was a great favourer of agricultural improvements, and the writer afterwards, the better to fulfill the intentions of his benefactor, procured Dr. Beati's excellent annotations on the Legacy, with several other valuable pieces from his numerous correspondents. The period in which this author flourished appears to have been an era when English husbandry rose to great perfection; for the preceding wars had made the country gentry poor, and, in consequence, more industrious. They found the cultivation of their own lands to be the most profitable part they could occupy. But a few years afterwards, when the Restoration took place, all this industry and knowledge became useless, from the new fylem that was acted upon, and were exchanged for heedlessness and dilapidation; from which husbandry pulled almost entirely into the hands of common farmers. But the famous work usually attributed to Hartlib, and called the Legacy, was only drawn up at his request, and, after passing through his correction and revision, published by him. The real author of the treatise, which confines of one general answer to the following question: "What are the actual defects and omissions, as also the possible improvements, in English husbandry?" was a person of the name of R. Child, who seems to have been acquainted with many ingenious improvers of agriculture at that period. Several other pieces succeeded the publication of the Legacy, which greatly improved and augmented the means of cultivation.

Grew, by the publication of the Anatomy of Plants, and shewing, in some measure, the economy of the vegetable fylsem, contributed to change the views and extend the enquiries concerning the nature of vegetation and the food of plants. But a principal writer who inspired his countrymen, with a desire of reviving the study of agriculture after the Restoration, was Evelyn; who being followed by Ducket, Ray, Dugdale, and several other authors, the art of cultivation was greatly recovered, and some new improvements introduced; and the establishment of the Royal Society which took place a few years afterwards, contributed still more fully to the advancement of it, by serving as a focus for collecting and recording valuable materials on the nature of vegetation and the principles of agriculture, as well as other subjects. About the year 1706, many additions and improvements were made in this useful art.—Mortimer, by his explanations of various practical modes of management; Bradley, by reducing the facts on vegetation into a more systematic order; Hales, by his valuable natural experiments and investigations; and Miller, by the publication of his dictionary, and other works, contributed very materially. But agriculture is probably still more indebted to the exertions of Tull, notwithstanding the evident futility of many of his propositions, as by shewing the utility and importance of draining, and frequent hoeing or shoveling the ground about the roots of plants, and thereby keeping them clean and free from weeds, farmers have been induced to adopt more clean and sure methods of cultivating their arable lands. The introduction of this system of management, therefore, in some degree, forms an era in the history of English husbandry.

In Ireland about the middle of the last century, the art of husbandry began to make considerable progress; that country having had very strong prejudices in behalf of a very wretched method of agriculture, until about that period, when Blythe opened the eyes of the people by his incomparable writings, since which a spirit of improvement has, more or less, been promoted and carried on with zeal and constancy by the nobility, clergy, and gentry of the kingdom. In proof of which it may be sufficient to observe, that a society for the encouragement of agriculture has been established, the transactions of which are highly respectable and important. In many respects, however, Irish husbandry is still much behind that of Britain.

At the conclusion of the peace of Aix-la-Chapelle, almost all the nations of Europe, by a sort of tacit covenant, applied themselves to the study of agriculture; and continued to do so, more or less, amidst the universal confusion that soon succeeded. The French found, by repeated experience, that they could never maintain a long war, or procure a tolerable peace, unless they raised corn enough to support themselves in such a manner as that they should not be obliged to submit to harsh terms on one hand, or perish by famine on the other. Their king, therefore, thought proper to give public encouragement to agriculture, and was even present at the making of several experiments. The rich and great, of various ranks and stations, followed this noble example, and the ladies even put in for their share of fame in the laudable undertaking. Even during the hurry and distresses of the last war, some attention was paid to agriculture. Prize questions were then proposed annually in rural academies, particularly at the two academies of Lyons and Bourdeaux, and many alterations were made by the society.
society for improving agriculture in Brittany; and after the conclusion of peace, matters were carried on with greater vigour.

The university of Amiens has made various proposals to the public for the advancement of husbandry; while the Marquis de Tourbillon, a writer, proceeding chiefly on experience, undertook the principal direction of the Sociological Society, established at Tours, and the society of Rome was also usefully employed on the same subject.

It may be added, that many societies were afterwards established by royal approbation, for the promoting of agriculture, and rendering the knowledge of it more general, and extended.

The convulsive shocks of the Revolution, which has overturned many useful establishments, and retarded the advancement of many improvements, has not by any means prevented the progress of agriculture, as is evinced by the appearance of numerous papers on the subject in the transactions of different societies. Indeed, it would seem probable, that from the crippled state of commerce in that country, unusual attention has been paid to the art of cultivation.

The science of agriculture is publicly taught in the Swedish, Danish, and German universities. Nor has Italy been inactive. The Neapolitans of the present age have commenced to turn back to the first rudiments of revived husbandry, and begun to study anew the agriculture of Crete, first published in the year 1478. The people of Bergamo have pursued the same track, and given the world a new edition of the Ricordo d’Agricoltura di Terra, which was originally published at Mantua, in 1577.

The duchy of Tuscany has imbibed the same spirit. A private gentleman left his whole fortune to endow an academy of agriculture. Even Ferrara, a small territory in the papal dominions, has contributed its just contingent, and made some valuable attempts in this art. Animated with a desire that the people under his government should excel in husbandry, his Sardinian Majesty, sent several students to learn the practice of foreign countries, and made several attempts to establish a better method of agriculture among his subjects. In Poland, where a natural fertility of soil forms in some measure to dispence with the necessity of calling in improvements, M. de Bielinski, formerly grand marshal of the crown, made many successful attempts to introduce the new or drill husbandry-among his countrymen, and procured the half instruments from France, England, and other parts of Europe.

The Hollander seem to have given the least attention to agriculture, if we except a few collateral instances, such as the draining of fens and morasses, and the making of canals and embankments; and even these have probably proceeded more from the motives of self-preservation, than any particular turn towards husbandry.

In the year 1759, a society established itself at Berne, in Switzerland, for the advancement of agriculture and rural economy. That society collected of many ingenious private persons, and allof some of great weight and influence in the republic; most of them men of a true call for the improvement of husbandry, being enabled to join the practice with the theory. They have published several useful papers on different matters connected with the subject. We must not omit to mention here, that Linnaeus and his disciples performed much in the north of Europe, particularly in discovering new, profitable, and well-tasted food for cattle. At the same time Sweden has bestowed useful labours on a soil, which was before looked upon as cold, barren, and incapable of improvement; of this the memoirs published at Stockholm will be a lasting monument. Denmark, as well as many courts in Germany have followed a similar example. His Danish Majesty encourages, in particular, the wooden manufacture; and the late King lent three persons into Arabia Felix, to make remarks, and bring over such plants and trees as might be useful in husbandry, building, &c. Nor has the duchy of Wurttemberg, a country by no means particularly favourable to corn and paflurage, failed to contribute its influence towards the improvement of agriculture, having some time ago communicated to the public its economical labours from the preb at Stuttgart. The learned of Leipzic, and Hanover, have not been inattentive to the art of supporting human kind; for amidst the rage and devastations of war, the Journal d’Agriculture, printed at Leipzic, and the Recueils d’Hanovre, printed at that city, have been brought out.

Even Spain, naturally inattentive on these occasions, in spite of all the prejudices of a bigoted religion, invited Linnaeus, with the offer of a large pension, to superintend a college, founded for the sake of making new inquiries into the history of nature, and the art of agriculture.

But it is probably in our own country that agriculture has been most attended to, and received the greatest improvement; from his Majesty having long, with a patriotic zeal and personal attention, worthy of the elevated situation which he holds, directed his views to the introduction of new and better modes of cultivation and rural improvement, as well as economy and convenience in the management of every department of agricultural business, connected with his varied and extensive farms, an example and encouragement has not only been held out, but an attention excited to the art, which could not possibly have been produced by any other less distinguished means; so that there is reason to hope, from the spirit that now animates a great number of the nobility and gentry, that this useful art may, in a few years, be carried to a much greater degree of perfection than it has yet reached in any age or nation. In this view, the respectable society established at London, for the encouragement of arts, have already done much, and there is reason to hope, from their increased resources, that they may do much more. A vast variety of different machines for facilitating the practice of agriculture have been invented and presented to the public, in consequence of the large premiums and bounties which have been offered. The institution of societies in many different parts of the kingdom for the improvement of agriculture, and the endowment of a professorship at Edinburgh for the same laudable purpose, cannot but promote the study, and enlarge the boundaries of the science.

About the year 1767, Mr. Young commenced his valuable and well directed labours, which, by attracting the attention of practical agriculturists on those improved means of cultivation that are made use of in parts of the country, very remote from each other, and shewing the great utility of experimental inquiries on the subject, and by promoting and diffusing a taste for the science, from the early and popular language of his writings, have rendered the most essential advantages to the agriculture of the nation. Doctor George Fordyce has likewise contributed in so small degree to the advancement of the science, by the publication of his Elements of Agriculture and Vegetation, a work in which the chemical principles of the various substances that enter into the composition of soils and manures are well explained.

Mr. Marshall too, by registering the local customs and practices of different districts, has afforded considerable service to the farmer, by bringing him acquainted with a variety of modes of rural management, which he could not otherwise have known.
The indefatigable exertions of Dr. Anderson in promoting the improvement of the more practical branches of the art, by his various detached writings, have likewise contributed much to its advancement; and Mr. Bakewell, by drawing the attention of the breeder and grazier to the most advantageous modes of breeding, rearing, and feeding, as well as the general management of different kinds of live stock, has greatly promoted the improvement of that intricate, though important branch of husbandry, which has since been brought still nearer perfection by the vast and well directed exertions of his Grace the Duke of Bedford, and other noblemen, equally zealous in forwarding the advancement of this difficult department of the art.

But neither the distinguished example of the Sovereign, the endeavours of provincial societies, nor the exertions of private individuals, with whatever zeal and attention they may be directed, are probably sufficient to extend the knowledge of husbandry to that degree which is necessary for its complete and radical improvement. This could only be fully accomplished by the powerful influence and expensive exertions of a national establishment instituted for the purpose. Such an institution has at last been brought forward and established by the intelligent and persevering efforts of Sir John Sinclair; to the honour of the country, the age, and the individual who suggested it. The institution of a Board of Agriculture and internal improvement has already contributed materially to the extension and advancement of the knowledge of rural affairs. The state of the art in the greatest part of the kingdom has been ascertained, a great variety of new and interesting facts and practices have been brought to view, and improvements in the instrumental and other departments suggested. Among these the elucidation of the principles and practice of draining or removing the injurious wetness of land, arising from springs and other causes, as laid down and explained by Mr. Elkingston, is of great importance and deferring of notice, not only as the basis or foundation of many improvements in the art, but as leading to the convenient and easy application of water for irrigation and various other purposes. See Board of Agriculture.

In addition to this great source of improvement, the science of agriculture has lately derived essential advantages from the judicious application of the principles of other sciences.

In this respect the modern discoveries in chemistry and vegetation have been particularly important, as is evident from the works of Tillet and Hallenfraitz, on the Continent, and of Pridie, Anderson, Kirwan, Dundonald, Darwin, and many others in our own country. By these our knowledge of the principles of vegetation, and the operations of different substances upon each other, has been much enlarged; and our acquaintance with the nature, formation, and modes of applying manures, or the food of plants, rendered more clear and satisfactory.

Agrielea, in Botany, the wild olive. See LEX and HOLLY.

Agrician, or Isle of St. Francis Xavier, in Geography, one of the Ladrones or Marianas islands, which is mountainous and large, being about 50 miles in circumference, and remarkable for its volcano. N. lat. 19° 4'. E. long. 146°.

Agrigentum, or Agrigas, in Ancient Geography, a very famous city on the south coast of Sicily, near the spot which is now occupied by Girgenti. The principal part of the ancient city, as Mr. Swinburne and M. Houelle inform us, lay in the vale; and the present town of Girgenti is situated on the mountain, where was the citadel of Cocalus, and probably the ancient city. Agrigentum derived its name from Acragas, the original name of the city, and also of a neighbouring stream, both which according to Polybius, were so called from the country, denominated ερείπιον, acrages, on account of its fertility. Some authors, ascending to fabulous antiquity, relate, that Dedalus fled to this spot for protection against Minos, and built many wonderful edifices for Cocalus, king of the island. Polybius (lib. ix. p. 560. Ed. Calabri.) says, that it was founded by a colony of Rhodians; that it was situated on a rock; and guarded by a fortres to which there was only one way of access; and that in the citadel there was a temple of Minerva, and also of Jupiter Atbyrus, who was worshipped under this appellation, in the isle of Rhodes. Thucydides (Hist. lib. iv. p. 380. Annal. p. 23. Ed. Duker) informs us, that Acragas was founded by a colony from Gela, under the command of Arilontius and Pythius, in the 50th Olympiad, or 579 years before Christ. It lies between the rivers Agragae and Hypsa, the former of which is now called Fiume di Gergenti, and Fiume di San Biagio, and the latter Fiume Drago. The situation of Agrigentum was admirably adapted to the purposes of defence, commerce, and pleasure. It was guarded by a barrier of rocks, which were strongly fortified; sheltered by pleasant hills; and enjoyed the view of a spacious plain, watered by the Acragas, and a convenient port or emporium at the mouth of the river. Its free government and commercial spirit raised it to a degree of wealth and power, exceeded only by those of Syracuse. Its buildings of every kind were in a singular degree magnificent and splendid. Besides the temples already mentioned, that of Jupiter Olympius deserves particular notice. According to the account of Diodorus Siculus (lib. xiii. tom. i. p. 607. Ed. Weilhinger,) it was 340 feet long, 60 broad, and 120 feet high. This historian extols the beauty of the columns, which supported the building, the admirable structure of the porticoes, and the exquisite talle with which the bas-reliefs and paintings were executed; but he adds, that the stately edifice was never finished. On the eastern side was exhibited the battle of the Giants, and on the west the capture of Troy, with the figures of the heroes in their appropriate habits. Cicero, against Verres, speaks of the magnificence of the statues which he carried away. Mr. Swinburne informs us, (Travels, vol. iv. p. 244.) that it has not now remaining one stone upon another; and that it is barely possible, with the liberal aid of conjecture, to discover the traces of its plan and dimensions. He adds, that the cathedral of Rome exceeds this celebrated Agrigentine temple more than doubly in every dimension, being 215 feet higher, 334 longer, and 433 wider. The other ruins which this writer surveyed, and which he curiously described, are those of the temple dedicated to Ceres and Proserpine, the peculiar patronesses of Sicily, the temple of Juno, the doric temple of Concord, which has all its columns, entablature, pediments, and walls entire, with part of the roof wanting; and which is now converted into a church, consecrated to St. Gregory, bishop of Girgenti; the temple of Hercules, the tomb of Thers, the temple of Eucaliptus, and the temple of Caftor and Pollux. Near this is a large lake or fish pond, described by Diodorus at seven stadia in circuit and 20 cubits deep. It was cut in the solid rock, and water was conveyed to it from the hills; a great quantity of fish was bred in it for the public entertainments; swans and other wild fowl swam along its surface for the amusement of the citizens, and the depth of water prevented an enemy from surprizing the town on that side. It is now dry, and used as a garden.

The inhabitants of Agrigentum, with all their advantages, were corrupted and enfeebled by their addictedness to luxury.
luxury and pleasure; and fell a sacrifice to the power of their enemies. Empedocles attempted their reformation; and, as Diogenes Laertius informs us (1. 8. segn. 63. tom. i. p. 532. Ed. Melibom.), reproached them with devoting themselves every day to pleasure, as if they were to die on the morrow, and with building their houses, as if they were to live for ever. They are commended, however, for their hospitality, for which they were no less distinguished than for their magnificence and luxury. Gellius, a rich citizen, placed porters at his gate, to invite strangers to take their repast and rep in his house; and he is said to have once entertained 500 horsemen with meat, drink, and clothes. Phalaris, whose name is familiar to most readers, on account of his cruelty, and the brazen bull in which he tortured his enemies, usurped the sovereignty of Agrigentum, in the second year of the 52d olympiad, B.C. 571; but having possessed it for about 16 years, he shared the common fate of tyrants, and is said by some, to have been put to death in his own bull. After his death, the Agrigentines enjoyed their liberty about 50 years; at the end of which period, Therone assumed the sovereignty. Under his government, which was just and moderate, Agrigentum was tranquil and secure; and in consequence of his union with his son-in-law, Gelon, king of Syracuse, in a war against the Carthaginians, Sicily was, for a time, delivered from her African oppressors. He was succeeded by his son, Thaeridens, who was deprived of the royal authority; and Agrigentum was reduced to her old democratic government. Its tranquility was interrupted by Dextus, a chief of the mountaineer descendants of the Siculi; but restored by the co-operation of the Syracusans. The union of the Agrigentines and Syracusans did not long continue; and the former, after an unsuccessful contest, were obliged to submit to humiliating terms of peace. The enemies with whom they next had to contend were the Carthaginians; who routed their armies, took their city, and almost extirpated their race. The situation of Agrigentum, on that coast of Sicily which faced Africa, and its prodigious wealth, induced Hannibal to open his campaign with the siege of this city; and the event was peculiarly distressing to the inhabitants. Those who were able to remove, during the progress of the siege, which lasted 8 months, went to Gelon; those who were left behind were committed to the sword, by the orders of Himilcon; and the riches of a city, which had contained 220,000 inhabitants, and which had never before been plundered, were rifed by the conquerors. The city itself was reduced to ruins. This calamitous event happened in the 92d olympiad, or about the year B.C. 410. Agrigentum remained for 50 years buried under its own ruins, till Timoleon, after vanquishing the Carthaginians, and restoring liberty to Sicily, collected the descendants of the Agrigentines, and sent them to re-establish the habitations of their ancestors. Such were the vigour and steadiness of their exertions, that Agrigentum was soon in a condition to arrogate supremacy over all the Sicilian republics. At length, they and their leader Xenodochus, after some favourable operations against Agathocles, who was supported by the Carthaginians in his usurpation of the sovereignty of Syracuse, were reduced to the necessity of humbly yielding to him for peace. This commonwealth afterwards took a strong part with Pyrrhus, king of Epirus, in his attempt upon Italy; and when he left Sicily to the mercy of his enemies, threw itself into the arms of Carthage. During the first Punic war, Agrigentum was the head-quarters of the Carthaginians; it was defended by a numerous garrison, under the command of Hannibal; and, after refiling a blockade of seven or eight months, was at
AGRIMONY, or Agrimont, in Geography, is a small ruined town in the Basilicata, in the kingdom of Naples. E. long. 22° 34'. N. lat. 40° 25'.

AGRIMONY, in Botany. See Agrimonia.

AGRIMONY, hemp, in Botany. See Eupatorium.

AGRIMONY, bagourd-hemp, See Ageratum.

AGRIMONY, water-hemp, in Botany. See Bidens.

AGRINAGARA, in Ancient Geography, a town of India, on this side the Ganges; placed by Pliny in long. 110° 17', and lat. 22° 30'.

AGRINUM, a town placed by Polybius in Aetolia. It was on the left of the river Acheus, and north-east of Thermus.

AGRICARDAMUM. See Cardamine.

AGRICASTANUM, the name as earth-nut, popularly called pig-nut, and arnott.

AGRICINARUM, in Botany, a name used by some authors for that species of wild artichoke, the root of which is used instead of the costus nigra.

AGRIOCACCINELA, or pomus sylvestris. See Plumtree.

AGRIOMELA, a name for the crab apple.

AGRIOMELANZANION, in the Botanical Writers of the Ancients, a word that has perplexed many of the later writers. The Arabic writers, Avicenna and Serapis, used the word bedegium for the fruit of the pomum amarum, a kind of ecident night-shade; or falafum, called by the old Greek writers, as Theophrastus, &c. frydium, and only distinguished from the other frydium, or night-shades, by its being described as wholesome, not poisonous. From this Arabic word Bedegium, the Italians formed their word melanzana, and the late Greek writers their melan- zanion, which they used as the name of the same fruit. This, when the plant was cultivated in gardens, was probably larger and fairer than when it grew wild; but in this latter state it was not used, but was distinguished by the term agrimonezianion. If the Greeks, who used this word, or the melanzanion, would have appropriated them to the pomum amarum, and distinguished these from the other night-shades, they would have done service to the world.

AGRION signifies the fruicidanum, called alto agrin- phyllon.
AGRIOPHAGI, compounded of 

ANTHOPHAGA, a division in the 

Entomology, comprehending five 

species, and many varieties, which are referred to the genus 

Agriophaga, in the Linnæan System, by Cramer. They 

are characterized by having wings erect when quies-

cent, eye remote, and the exterior laciniæ of the lip 

filiform.

AGRIOPHAGI, compound of agriphagas, wild, and 

aedes, the same, in Antiquity, a name given to those 

who feed on wild beets. Pliny places them in Ethiopia. 

Pliny refers them to India, on this side the Ganges, and 

attributes the appellation to the people whom he calls 

Pulindas.

AGRIORIGANUM, in Botany, wild marjoram.

AGRIOSELINUM, signifies wild sallows.

AGRIFALMA, a name given to mother-wort.

AGRIHNEN, in Ornithology, a genus given by Buffon 

to the emberiza oryctes, of the Linnæan System.

AGRIPO, in Geography, a peninsula, commonly called 

Negrofons.

AGRIPIPA, a name applied, among the ancients, to 

children born in an unusual or irregular manner; particu-

larly such as come with the feet foremost, instead of the 

head.

They were called agrippas, according to Pliny, on ac-

count of their being (agre parti) born with difficulty. 

Salmacius derives it from the Greek agrippa, incantation, and 

agrippa, q. d., a hunter of hares.

Daventer has a particular chapter of agrippas, or infants 

coming with their feet foremost, which, according to him, 

is one of the most convenient and safe ways for a mature 

birth.

Agrippa gives the denomination to an unguent, de-

scribed in the Antidotarium Nicolai, and in several other 
dispensatories, supposed by some, to have been invented 
by Agrippa, king of Judaea, but, as others suppose, by 
Julius Agrippa, a Roman physician.

AGRIPIPA, in Biography, an astronomer of Bithynia, 

lived towards the close of the fifth century. Prolemy in 

his Almagest informs us, that Agrippa observed a con-

junction of the moon with the Pleiades on the 29th of 

November, in the fourth year of the 217th Olympiad, or 

A. D. 92.

AGRIPIPA, Henry Cornelius, a physician, philosoper and 

divine, of various and great attainments, but of an eccen-

tric disposition, which exposed him to so great vicissitudes 
of fortune, was born at Cologne, September 14th, A. D. 

1486, of a noble family, which had been long in the ser-

vice of the house of Austria. In early life, he was secre-

tary to the emperor Maximilian, and continued his military 

service in the army for seven years. As a soldier he di-

tinguished himself by his valour, and obtained the honour 
of knighthood; nor was he less distinguished by his ap-

plication to literature and science. Of eight languages, 

which he acquired in his youth, six were so familiar to 
him, that he could even use them fluently in public dis-
course. Soon after he forsook the military profession, 
he obtained the united academical honours of doctor in law and 

physic. The philosopher's stone, as it was called, or the 

art of transmuting base metals into gold, engaged his at-
tention; and in the pursuit of it, he had no doubt of 
commending the admiration of the multitude, and the pa-
tronage of princes. With these romantic views he com-

menced his travels; and in 1507, being then in the 21st 
year of his age, he visited France, and in the following 
year spent some time in Spain. Upon his return to France, 
he retired at the college of Dole in Burgundy, and read 

public lectures in divinity; in consequence of which he 

was appointed regent with a salary. Notwithstanding his 

popularity, as a public lecturer, the freedom and novelty 
of some things which he advanced alarmed the monks, and 
rendered it necessary for him to surrender his office at Dole. 

In 1510 he passed over from France into England, and 

during his stay in London, published a treatise on the 

epistles of St. Paul. His next remove was to his native 
city, where for some short time he read lectures in phi-

losophical theology: he afterwards resumed his military 

station in the emperor's army in Italy; but he was soon 

induced by Cardinal de St. Croix to abandon this connec-
tion, and to attend as a theologian at the council of Pisa. 

After the dissolution of this assembly, he read lectures in divinity, 

sometimes at Turin, and sometimes at Pavia. But he 

was constrained by the difficulty of procuring decent sub-

sistence for his wife and son, to whom he was affectionately 

attached, to leave Pavia, and to try what his friends at 

Cologne could do for him. In 1518, their interference 
availed in procuring for him the office of syndic, advocate, 
and orator of the city of Mentz. Here he provoked the 

enmity of the monks, partly by maintaining the dan-

gerous error, that St. Anne, the mother of the Virgin Mary, had 

only one husband, whereas it was the popular opinion that 

she had three; and partly, by exercising himself in the vi-

dication of a poor woman, who had been accused to the 
inquisition of witchcraft. In 1520, he left Mentz, and 

returned to Cologne, where he left his wife in 1521. Re-

fusing to take his temper, he removed to Geneva; and here, in 1522, 

married a second wife, whom he supported by the practice 
of physic, as long as he continued in this city; but in 

1523, he exercised his profession at Friburg in Switzerland, 

and in 1524, settled at Lyons, as physician to the 

mother of Francis I. This lady, apprehending that he 
could, by his Astrological talents, predict future events, 
desired to be informed concerning the affairs of France. 

Agrippa was duped by the application; the prince, 
delighted by his refusing to satisfy her curiosity, discon-
tinued his pension, and this circumstance involved him in 

new difficulties. His next settlement was at Antwerp, 

where his singular talents attracted general notice, and pro-
cured for him various offers of distinguished patronage. In 

1529, he was honoured with invitations from Henry VIII. 

of England, the chancellor of the emperor, an Italian 
marquis, and Margaret of Austria, mistresses of the Nether-
lands. He accepted the proposal of the latter, and be-
came historiographer to the emperor Charles V. Agrippa's 

eccentric genius would not allow him to enjoy at ease the 

honor and emolument to which he was intitled. In 1530, 

he published "A Treatise on the vanity of the Sciences,"

which was a severe satire on the monks, theologians, preach-
ers, and members of the universities; but Erasmus, in speaking of this work, says, "that on every occasion he lashes vice and commends virtue; but there are persons who can bear nothing but praise." On this occasion, the emperor, probably inflamed by hisifter, whom the monks had prejudged against Agrippa, withdrew his pension, and suffered him to be imprisoned for debt at Brussels, in 1531. After the death of Margaret, Agrippa was released from prison; but he published another treatise at Antwerp, "On Occult Philosophy," which revived the animosity of his enemies. The design of this work was to explain, on the principles of the emanative system, the harmony of the elementary, celestial, and intellectual worlds. But the clergy discovered or suspected error, and hereby; and succeeded in delaying the publication of a third edition. But in 1533 it was published at Cologne; and another edition appeared in 1542, which is the most complete, and the most scarce. This publication was accompanied with an "Apology for himself to the Senate of Cologne," which excited violent resentment, and obliged him to withdraw to Bonn, where he is said to have divorced his third wife, whom he had married after the death of his second in 1529, by whom he had five sons. The peculiarity of his temper, and the narrowness of his circumstances, impelled him once more to try his fortune in France; and accordingly he returned to Lyons in the year 1535. Here his reception was very different from what he expected: he was imprisoned on account of some satirical papers which he had published against the mother of Francis I. Having obtained a release, he retired to Grenoble in the same year, 1535, and there he died, either in the hospital of the city, or in the house of a friend.

As Agrippa was an adept in chemistry, and professed to be an astrologer, he was reputed to be a magician, and supposed to be accompanied by a genius, or devil, in the shape of a black dog. That he was not possessed of the grand art of alchemy is plain, from the poor circumstances in which he lived and died. He possessed wonderful talents for acquiring the knowledge of languages, and a veracity of genius, which enabled him to assume and exercise a variety of professions. He was a soldier and a philosopher; a municipal officer and a lecturer; a lawyer and a physician; an astrologer and a divine. Nevertheless, he was always embarrassed and distressed; and though one flattering prospect after another presented itself, he could not so avail himself of them as to procure a permanent competence. Such was the liberality of his mind, and the extent of his knowledge, that he might have been eminently useful in instructing and reforming the age in which he lived, if he had not been fickle and selfish. While he applauded Luther, he continued in the communion of the church of Rome, and obtained the commendation of the pope for his fidelity. "If he had any decided principles, they were those of that mythical system of philosophy, which finds a sublime and spiritual meaning in all the operations of nature, and leads the soul, (according to his own language, in his Epistles) to a mysterious intercourse, and an essential and immediate union with God. The most valuable service which he performed to society was that of chastising the follies of ignorance and the vices of priesthood, in his satirical writings, which entitle him, in the scale of letters, to a place, though of inferior distinction, with Erasmus. In fine, Agrippa, though an extraordinary, and on the whole a splendid character, was rather a dazzling meteor than a steady and useful luminary."

His principal writings, besides those we have mentioned, and several other pieces, were, "A Dissertation on Original Sin," designed to prove that the fall of our first parents was the consequence of unholy love; "A Declaration on the excellence of Women," written to gratify Margaret of Austria: "A Commentary on the Art of Raymond Lully," which is as unintelligible and ridiculous as the original. A mutilated edition of his works was printed at Lyons, in 1600, in 1586. They were published in French at Paris, in 1726. His "Vanity of the Sciences" was printed in 1640, at Antwerp, in 1520, 1532, 1539; and the last edition has a head of the author. It was printed at Paris, in 1531, and has been translated into Italian and French. Gen. Diet.

Agriffa, surnamed Castor, flourished under the Emperor Adrian, about the year 132. Ennius (Bccl. Lib. iv. c. 7. p. 120. Ed. Val. Ex.) represents him as an excellent writer, who had ably confuted the errors of Dafides; but his works are lost, and no considerable fragment of them remains.

Agriffa I., Herod, was the son of Aristobulus, by Berenice, the daughter of Herod the Great. He was brought up at Rome, with Drusus, the son of Tiberius; but having been reduced to penury by his liberality and profusion, he was under a necessity, upon the death of Drusus, of retiring to Judaea, where he immured himself in a castle of Idumea, and determined to starve himself to death. His wife, Cyprus, the daughter of Phaestus, and the granddaughter of Herod the Great, diverted his purpose, by procuring for him some present relief. He also obtained temporary assistance from Herod, the husband of Herodias, who made him a magistrate of Tiberias; but afterwards upbraiding him at a banquet with his kindred, Agrippa was offended, and withdrew to Puteoli, governor of Syria, and afterwards to Rome. Here he attached himself to Caius Caesar; and having incensed Tiberius, by some expressions that signified a wish for his death, and which were reported to the emperor, he was thrown into prison and loaded with chains. Upon the death of Tiberius, and the accession of Caius Caligula, he was immediately released and distinguished by tokens of favour. The new emperor arrayed him in purple; exchanged his iron chain for one of gold of the same weight; put a diadem on his head, conferred on him the title of king, and granted him the tetrarchy of his late uncle Philip, and that of Abilene, in Syria, which had formerly belonged to Lyons, A.D. 39. After continuing a year at Rome, he obtained leave to visit his new dominions; and embarking at Puteoli, he sailed over to Alexandria, where his magnificent entry provoked the inhabitants, and exposed him to insult and indignity. The conduct of Flaccus, the Roman governor, who refused him the redress which he demanded, and who was a violent persecutor of the Jews in this city, was reported by Agrippa to the emperor; and by him he was ordered to be recalled, stripped of his wealth, and banished into an island of the Archipelago, where, at length, he was put to death. Herod Antipas, who had, on a former occasion, treated Agrippa with contempt, beheld his elevation with jealousy and envy; and accompanied by his wife, Agrippa's sister, he took a journey to Rome, in order to obtain similar honours; but Agrippa, in the mean while, secured Herod to the emperor, as having been concerned in the conspiracy of Sejanus, and thus procured his discharge and banishment to Lyons, in France. Caius conferred the treasures of Herod, and also the tetrarchy which he had possessed 43 years, on Agrippa. A circumstance, however, occurred at this time, A.D. 39, which was a very severe test of Caligula's attachment to Agrippa. The emperor had ordered his statue to be erected and worshipped in the fabric.
AgrIPPa, who was now at Rome, contributed to the accession of Claudius; and was commenced by the confirmation of Caligula’s grants; by the addition of Judaea, Samaria, and the Southern parts of Idumea; and by several edicts in favour of the Jews. He was, likewise, honoured with the confederate indignation, and indulged with the privilege of paying his compliments to the emperor in Greek; a ceremony which was usually performed in the Latin language. At his request, the kingdom of Chalæis, in Syria, was bestowed on his brother and son-in-law, Herod. All these grants were engraved on copper, and fet up in the capital: and Agrippa was thus poifon’d of territories, which extended to the farthest limits of the dominions of his grandfather, Herod the Great. Agrippa, soon after the establishment of Claudius, returned to his kingdom, where he manifested a zealous attachment to the religion of his country; and caused the golden chain, which Caesars had given him, to be hung up in one of the most conspicuous parts of the temple, as a monument to posterity of the indulgence of human affairs. He depofed and appointed several high-priests in a short time. His government was conducted, according to Josephus, with a great degree of moderation and clemency; but Dion Cassius, (lib. lix. tom. ii. p. 928. Ed. Reimari) says, that Agrippa was reckoned one of Caligula’s advicers in his cruel and tyrannical measures. If he had been less anxious to please the Jews, he would not probably have disgraced his reign by the perfecution of the Chalæans, who seemed to have been very quiet at Jerusalem ever since St. Paul’s conversion. The martyrdom of James the L.t., the brother of John, and the imprisonment of Peter, are justly ascribed to him. But with his zeal for the Jewish rites and practices, he blended Heathen observances, which gave offence; and, in conformity to the Roman taste, he exhibited shows of gladiators and public games. At Cæsarea, whither he went with a splendid and numerous retinue, for the purpose of celebrating some games in honour of Caligula Caesar, he appeared in a brilliant garb on the theatre, and addressed an elegant speech to the deputies of Tyre and Sidon, who appeared before him to make an apology for some offences, and to solicit his future favour. Their embassadors, and other attendants on the occasion, expressed their admiration in the most extravagant terms; exclaiming, that his voice was that of a god, and not a man, and practising some attitudes that approached to those of adoration. The king, to far from restraining these expressions of flattery and homage, manifested his approbation of them; he was immediately invested with a violent disorder in his bowels, probably similar to that of Herod, his grandfather, and attended with the same circumstances, which, after a torture of five days, terminated in his death. A.D. 44., in the 54th year of his age, and the 7th of his reign. He left a son of the same name, and three daughters, viz. Berenice, who was married to Herod, her father’s brother; and Mariamne and Drusilla, both unmarried, but contracted; the former to Julius Alexander, the son of Chæleis, or Eileius, probably of the Herodian family; and the latter to Epiphanes, the son of Antiochus, king of Comagene, but afterwards married to Azizus, king of Emæa. Mariamne abandoned Alexander, her husband, to marry Demetrius, a noble and rich Jew of Alexandria, and one of the chief magistrates; by whom she had a son, named Agrippinus. Drusilla left her husband, and renounced the Jewish religion to marry Felix, governor of Judæa: by him she had a son, called Agrippa, who perished with his mother, in the confusion occasioned by mount Vesuvius, under the emperor Titus. His death was celebrated at Cæsarea with tumultuous rejoicings, and his memory infalted with the vilest outrages. Joseph. Antiq. Philos. Legat. Ant. Un. Hist. vol. iii. p. 272.—279. 8vo.

AgrIPPa II. Herod, was the son of Agrrippa I.; educated at Rome, and at the death of his father was 17 years old; and therefore thought too young for succeeding in the kingdom. Judea, on this occasion, became a Roman province, and was committed to the care of Cæsius Fadus, who received instructions to punish those who had insulted the memory of the late king. When Herod, the uncle of Agrrippa, died, the superintendency of the temple and sacred treasury, the privilege of nominating the high-priest, and the kingdom of Chalæis, were conferred upon him. He refused chiefly at Jerusalem, where, with his father Berenice, he heard Paul’s defence before Felix, the Roman governor, (recorded Acts, xxxv. xxvi.) and owned himself almost convinced by it. Agrippa displeased the Jews by building a palace, which overlooked the temple, and exposed their service to the view of Felix and the Romans; but to prevent this intrusion, they erected a partition wall, which the king ordered to be demolished. On application to the emperor, and by the intercession of Poppea, the wall was allowed to remain. At the commencement of that revoit, which terminated in the destruction of the Jewish nation, Agrippa, attempting to appease the Jews, was so infalted by them that he was obliged to secure himself from their violence, by leaving Jerusalem. He afterwards joined Cæsius, the Roman governor; and when Vespasian arrived in the province, he met him with a considerable reinforcement, and accompanied him to Rome, when he took possession of the empire. During the siege of Jerusalem, he was very serviceable to Cæsarius; and after its reduction, he and Berenice (with whom he was suspected to have had excucious intercourse) retired to Rome. His kingdom is said to have been enlarged by the influence of Cæsius, who was passionately attached to his sister Berenice; and who would have married her, if the Romans had not refigured his design, partly because the was a Jewess, and partly because he was royally defended. He was, therefore, obliged to find her away. As for Agrippa, he was the last of the Herodian race that bore the royal title, and is supposed to have died at Rome, as some fay, A. D. 102; according to others, A.D. 95; and as others fay, A. D. 100. Joseph. Ant. Bell. Jud. Ant. Un. Hist. vol. iii. Gen. Diet.

Agrrippa, Marcus-Vulmissus, was a person of obscure origin at Rome, educated with Octavius, afterwards Augustus, distinguished as his companion and friend, confided as his favourite general, in all the vicissitudes of his life, and lamented by him at his death. Although his family
A gr

mily is not known, he must have risen into early notice, as his first wife was Attica, the daughter of Pomponius Atticus. When the war broke out between Marc Antony and Octavianus, Agrippa refuted Salvidius, the general of the latter, in circumstances of imminent danger, and, concuring with him, drove Lucius, Antony’s brother, into the city of Perga, and underwent the place before he had time to reflect on his own perilous situation. Being afterwards appointed commander of the fleet of Octavianus, he took Thira, one of the Æolian islands, and afterwards obtained, by his skill and valour, a complete victory over the whole fleet of Pompey, for which he was honoured with a standard and a rostral crown. On another occasion, when Antony had assembled his fleet at Actium, Agrippa interrupted its convos and having made several conquests on the coast of Greece, which harried the enemy, and dispersed a squadron that was advancing to join Antony, he directed the famous naval engagement that ensued, and by which Octavianus secured the empire. Octavianus, having thus acquired the supreme power, consulted his two friends Agrippa and Mecenas, whether he should retain his supremacy or surrender it to the senate. Agrippa advised the restoration of the Roman liberty; but Mecenas’s advice to retain his power was more agreeable to the views of Octavianus, and was therefore followed; and yet Agrippa still retained his master’s favour. In the year before Christ 28, they were colleagues in the consulate, which was the second time of Agrippa’s bearing that office; and the coalition was renewed in the following year.

Agrippa by marrying Marcella, the emperor’s niece, was received into the imperial family; and in their command of the army, Octavianus and Agrippa possessed equal authority and distinction. His munificence was signalised by the buildings which he erected at Rome; the most remarkable of which were his porcia for the use of public assemblies, and the famous temple called the Pantheon. When Octavianus was dangerously ill in the year before Christ 23, he committed to him his ring, which being considered as a preference of Agrippa for his successor, offended Marcellus, and rendered it necessary on the recovery of Augustus, to remove him from court by an honourable exile to the rich government of Syria. Upon the death of Marcellus, Agrippa was recalled to Rome, where he was married to Julia, the daughter of Augustus and Marcellus’s widow, and contributed to restore the tranquillity of the city. The next service he performed was to oppose the Germans, who had made an incursion into Gaul, and to drive them back beyond the Rhine. The Cantabrians, who were vigorously combating for liberty, demanded greater exertions; but they were at last completely reduced. A triumph, which he declined, was decreed to him by the senate on this occasion; but in commemoration of his service, Augustus associated him with himself in the tributum power, which was conferred on him for five years; he was also appointed joint censor, and concurred with Augustus in that office of the Order. His two children by Julia were also adopted by the emperor in the year before Christ 17. After three years he was sent to appease the dissensions that had occurred in the east. As he was passing through Ionia with Herod the Great, the Jews complained to him, that they were hindered in sending their tribute to the temple at Jerusalem; that they were obliged to serve in the army; and had other hardships imposed upon them inconsistent with the privileges granted them by the Romans. Agrippa gave them and their adversaries a solemn hearing, and in court confirmed to them their privileges; and gave orders, that no one should molest them in the observation of their peculiar rites and customs. Having also appeased some troubles which had arisen in the Cimmerian Bosporus, he returned home, and a triumph was again decreed to him, which he refused. After this period no person that was not of the imperial family ever obtained a triumph in Rome. The tributum power having been renewed to him for five years more, he was next sent to Pannonia, and having quieted the disturbances in that country, he returned to Italy, where he was attacked in Campania, with a fever that soon terminated in his death. A. U. C. 743. B. C. 12. in the 51st year of his age.

Augustus, as soon as he heard of his death, left the sports which were then exhibited by his two grandsons in honour of Minerva, and hastened to visit his dying friend; but he had expired a few minutes before his arrival. He was greatly affected, and he lamented the loss of the greatest general of his age, the wisest minister, and the most faithful of all his friends. His body was conveyed to Rome, and buried in Augustus’s own mausoleum, near Maecenas; the emperor pronounced his funeral oration, and declared, that he would not be separated, even after his death, from two persons, whom he so tenderly loved in his life. By his will he bequeathed the fine gardens and baths, which were called by his name, to the Roman people; but his principal heir was Augustus. His surviving children were one daughter by his first wife Cecilia Attica, named Agrippina, and married to Tiberius; and three sons and two daughters by his third wife Julia. Two of the sons died in their youth; and the other, Posthumus Agrippa, was sacrificed to the jealousy of Tiberius soon after his accession; one of the daughters, viz. Julia, was married to Lucius Paulus; and the other Agrippina, to the celebrated Germanicus. Agrippa’s fame sufficiently established by his great actions, has derived an accession from the immortal records of poetry. Virgil, in his anticipation of the battle of Actium, gives the following dignified sketch of this commander:

“Parte afflata ventis et dis Agrippa secundus,
Arduus, armis armatur : cui, bellis insigni superbum,
Tempora natalis fulgenter rostrata corona.”

Æn. viii. 682.

“Agrippa secundus, atque propitius gales,”
And with propitious gods, his foes affalls:
“A naval crown, that binds his manly brow—
The happy fortune of the fight foresees.”

Dryden.


Agrippa, Menenius, was confid of Rome, A. U. C. 251. Ante Christ. 503. He obtained the honours of a triumph for a complete victory, which he and his colleague P. Polliinanus gained over the Sabines. When the people reviled the tyranny of the Patricians, in the consulates of Virginius and Veturius, he was deputed to effect a reconciliation; and it is said that, on this occasion, he pronounced the famous apologue of the stomach and members, by which, with promises of a redress of grievances, he gained his purpose. In their demand of magistrates of their own (who were the tribunes) to protect their rights, he acceded; and he advised the senate to comply. He died, at an advanced age, with a character highly esteemed for wisdom and integrity; but too poor, that his relations intended to bury him in a private manner. The people, how-
AGrippa, in Ancient Geography, a colony of Bithynia in Asia, formed by the Agrrippae.

AGrippiades, a name given by Herod to AThedon.

AGrippina, the elder, in Biography and History, was the daughter of Marcus Agrippa, and wife of Germanus Caesar. When the German Legions revolted in the beginning of the reign of Tiberius, she attended her husband in the camp; and though she had the charge of an infant son and was pregnant with a second child, it was with difficulty that she was persuaded to retire from the danger that threatened them; and the commissation which her situation excited induced the revolters to return to their allegiance. On another occasion, when the victorious Germans were on their march to make an irruption into Gaul, and it was proposed to demolish the bridge on the Rhine, near Treves, in order to stop their progress, Agrippina prevented it, and thus secured a retreat for Cecina and his legions. When they arrived, she met them at the head of the bridge, returned them thanks for their valour, and distributed among them clothes and medicines. The jealous Spirit of Tiberius took offence at this conduct, which merited commendation, and aggravated the dislike with which she was regarded at court, in consequence of her disaffection with Livia, the mother of the emperor. She afterwards attended her husband in his difficult and perilous expedition to the Eastern provinces of the empire, and was the forrowful witness of his last conflict, which happened at Antioch, A.D. 19. The dying prince conjured her by the memory of a husband once deare to her, and by her children, the product of mutual love, to refrain her great spirit, yield to her humble fortune, and take care at her return to Rome not to irritate those in power by an ill-judged rivalry. Agrippina gathered the ashes of her deceased husband, and braving the dangers of the sea in the perilous season of the year, laden with home, and landed at Brundisium, carrying the sepulchral urn, and accompanied by two of her children. The mournful spectacle produced an universal groan amidst the multitude, who waited her landing; nor were the lamentations of relations to be distinguished, as Tacitus has described the scene, from those of strangers, nor of men from those of women. Agrippina's spirit was unsubdued; after her return to Rome, she forgot the dying charge of her husband, and fell a sacrifice to the wicked arts of Sejanus. By his agents he persuaded her, that it was the intention of the emperor to poison her; and she had the imprudence to disclose her suspicion to the reigning tyrant. This circumstance induced him to determine upon her ruin; and immediately after the death of his mother, Livia, he sent to the senate letters of accusation against her and her son Nero. The senate hesitated; but Sejanus furnished the evidence that was necessary for their condemnation. She was banished to the isle of Pandataria, now Santa Maria, lying off the coast of Terracina; and her son Nero was banished to the neighbouring isle of Pontia, where he soon died. Drusus, her second son, was confin'd in the lower apartments of the palace, and there famili'd. Agrippina survived about four years; and her death, which happened through want of food, either voluntarily or by compulsion, A.D. 33, was announced by Tiberius to the senate; and the savage tyrant accepted the thanks of this body, for not ordering her to be strangled, and her body to be exposed like that of a common malefactor. This pretended clemency was more than counter-balanced by a charge against her of adultery with Afinius Gallus, whose death, he said, had been the cause of hers. Her known character for chastity repelled this infamous charge; and Tacitus sums it up in a few words, by observing, that "impatient of equality and greedy of domination, she had banished female frailties by her masculine ambition". Her remains were brought in great pomp from Pandataria, by her son Caligula, soon after his accession, and deposited in the mausoleum of Augustus, and all sorts of honours were paid to her memory—"an instance, says an excellent biographer, of filial piety, which is one of the best things recorded of that imperial monster!" Tacit. Annal. lib. i. ii. iii. iv. Crevier's Hist. of the Emperors, vol. ii. iii.

Agrapilla, the younger, was the daughter of Germanicus, by the preceding Agrippina, and the mother of Nero. In the year 28 she was married to Tiberius to Ca. Domitius, belonging to the imperial family, but faithless, ferocious, and debauched; and as Agrippina was no less profligate than her husband, Domitius might well observe, as Suetonius informs us, (in Nero c. 6. tom. ii. p. 374. Ed. Pitr.) when he was congratulated on the birth of a son, that from him and that prince's nothing could be born but some monster, fatal to the human species; and his declaration was too exactly verified by the crimes and cruelties of Nero. Agrippina was distinguished with honours by her brother Caligula, at his accession; but left her husband before the end of that reign. Before his death, however, she had an intrigue with M. Lepidus, who was the companion of Caligula in his debaucheries, and who aspired to the empire; and he was concerned with him in his conspiracy against his brother. For this crime she and her sister Julia were deprived of the honours, which were conferred upon them at the commencement of this reign; their possessions were forfeited and sold by an auction in Gaul, at which Caligula presided; and they were banished to the isle of Pontus. Agrippina was compelled to carry in her arms the urn that held Lepidus's ashes all the way from Gaul to Rome; and at the same time Tiberius, under the charge of adultery with her, was exiled. In the reign of Claudia, Agrippina was recalled from banishment, and married to a second husband, whose name was Crippus Passionus, a celebrated orator, who had been twice banished, and who was very rich; and whom his wife poisoned in order to obtain possession of his wealth, which he had bequeathed to her by his will. After the death of Messalina, the third wife of Claudia, this emperor was induced A.D. 48, by the persuasions of Pallas, to marry his niece Agrippina, who exercised the new powers she thus acquired with a degree of haughtiness, injustice and cruelty, that might have been reasonably expected from her well-known character. She did not blush, says Tacitus, to prostitute herself to Pallas, in order to secure her son's elevation, and to gratify her own insatiable thirst for gold; and because Lollius Paulina had then been the rival for the imperial dignity, she was banished and put to death; and Dion Cassius (lib. lxx. tom. ii. p. 970. Ed. Reimari.) says, that she was brought to Agrippina, who opened and examined the teeth, in which there was some particular mark, that she might thus identify her person. She manifested her wisdom, however, in using her influence for recalling Seneca from banishment, and placing her son Nero under his tuition; but regardles of every principle of justice, she engaged the interest of Pallas, and prevailed with the weak emperor to adopt her son Domitius, then (viz. A.D. 50) called Nero Claudius Caesar, though he had a son of his own, Britannicus, to whom he was affectionately
fectionately attached, and to give him the prerogative of an elder brother. On this occasion Agrippina herself received an additional honour in the surname of Augusta. Britannicus was deprived of every opportunity of recommending himself to his father, and reduced by the arts of the emperors to the most despided condition. Agrippina ostentatiously exercised her authority in establishing a colony at the capital of the Ubi, where she was born, and in giving it the name of Colonia Agrippina, or Agrippina's; but it has been for many ages called Cologne, and the name of Agrippina has been suppressed.

Her vanity also led her to obtain leave to enter the capital in a car, like those in which the priests were carried, and on which all sacred things were deposited. In order to gratify her aversion, as well as her pride, she caused Statius Taurus to be accused, and provoked him by false charges to suicide, that the might get possession of his fine gardens. At length, Claudius began to be sensible of the crimes of Agrippina; and after drinking freely he happened to drop an expression, which alarmed her, viz., that it was his fate first to bear the wickedness of his wives, and then to punish them. She had also a rival in Demetia Lepida, Nero's aunt, a woman no less unprincipled and debauched than herself; and she contrived, by accusing her of forcery and magic and other crimes, to destroy her. She then directed the efforts of her malice against Narcissus, who was the declared friend of Britannicus and a powerful freedman; and succeeded first in driving him from court, and at length in procuring his death, as well as that of Julius Silanus, who was of high rank, and a descendant of Agrippus. In the mean while, having removed Narcissus, the vigilant guardian of Claudius's life, she determined to sacrifice the emperor himself.

His attachment to Britannicus was undiscoulered; and he resolved upon soon giving him the toga virilis, "that Rome, as he said, may at last have a true Caesar." Agrippina's fears accelerated her purpose; and she applied to Locuta, who had been lately condemned for administering poison after she had been long spared as the useful instrument of tyranny, to prepare the poison by which she designed to get rid of the emperor. The poison was mixed with mushrooms, a favourite dish of Claudius, and very speedily produced effect. Having dispatched the emperor, A.D. 54, she pretended sorrow on the occasion; and affecting tenderness for Britannicus, whom she kept in a state of confinement, she caused Nero, accompanied by Burrhus, to appear before the soldiery, and to be acknowledged as emperor.

The enormities with which Nero's reign commenced were sanctioned by her example, and encouraged by her authority. To her Nero paid great respect and deference, calling her "the best of mothers;" and the senate granted her the privilege of being preceded by two lictors, and the dignity of priestess of Claudius, whom she had poisoned. These tokens of respect served only to inflame the ambition of Agrippina, whose design it was to reign under her son's name. Accordingly she privately and by concealment attended the debates of the senate, and at a public audience of ambassadors, she attempted to ascend the throne with her son; but was feasibly restrained by the intercession of Seneca, that he should defend and meet her. But the soon perceived that her power began to decline, and this was a mortification, which her proud and violent spirit could not well bear. To divert the evil she at one time raved and menaced, and at another returned to every complying and soothing measure. The disgrace of Pallas was very hostile to her influence; and her son's respect diminished in proportion to the degree in which his independent power was established, by the removal and death of Britannicus, and his consequent refuge from the danger of a rival. When she attempted to pay court to the soldiery and nobles, Nero deprived her of her guards and honours, excluded her from the palace, and obliged her to retire, solitary and neglected, to her own palace. Nevertheless, she was again restored to favour, which she endeavoured to secure by various arts; and, as it is said, by some compliances, which are the most odious and reproachful that can be conceived of in the relation of a mother and son. Poppaea's influence over Nero from became paramount to every other; nor was it restrained even by the guilt of paricide, to which she stimulated him. But how to perpetuate this horrid deed, without exposing himself to public detestation, was a subject of serious deliberation. At length a galley was prepared by Anicetus, commander of his fleet, which might easily admit water, and founder; and Agrippina was enticed on board in the Baiae bay. The flat-top, however, did not succeed; for though Aestonia, the companion of Agrippina, left her life, Agrippina herself got safe to shore. The crime could no longer be concealed; and it became necessary to complete what had been begun. Accordingly Anicetus, with a body of mariners, surrounded the houfe where she had taken refuge; and entering her chamber, dispatched her with many wounds, A.D. 59.

To the assassins, it is said, she presented her womb, and bade them strike that part which had harboured such a monster. She was buried the same night without any ceremony, and had no tomb whilst Nero lived; but after his death some of her surviving servants erected a mean monument over her remains, near the high road from Rome to Misenum. Nero affected contrition after the event; but afterwards wrote a letter to the senate, or rather procured one to be written by Seneca, for which he has been much blamed, accusing her of many crimes, and charging her with a conspiracy, which rendered her death a fortunate event to the Roman people. The senate fervently decried thanks to the gods for his escape, and the day on which Agrippina was born to be marked in the calendar as an inauspicious day. Her crimes were of the most atrocious kind, and her memory has been execrable. Nevertheless she is said to have been a princess of some learning, and to have written memoirs of her life, referred to by Tacitus and the elder Pliny. Suetonius in Calig. Claud. and Nero. Tacit. Annal. lib. xii. 14. Crevier's Hist. Rom. Emp. vol. iii. and iv. Vols. de Hift. Lat.


AGRIS, or Agrés, in Ancient Geography, the name of a town of Carmania, between the mouth of the Sarus and the first that leads to the Perilyn gulf. Long. 96° 30'; and lat. 23°, according to Ptolemy.

AGRIUS, in Entomology, a species of the Sphinx Zygena, which is black, with wings pointed with green; the primores black, and the posterior blue; found in Syria.

AGRIZALA, a town of Asia Minor, belonging to the Tébæse of Galatia. Long. 2°. Lat. 41° 50', according to Ptolemy.

AGRUM, in the Materia Medica of the Ancients, a name given to an impurer part of natrum. The purer sort of this salt they call salmynhagia, and the coarser and dirtier kind agrum. The former of these they had from Media, the latter from Thrace.

AGROIR, a name which some have given to Attica of Lydia.

AGROCA Road, in Geography, lies to the west of the Bosphorese, near Portobello, on the Spanish main, and is well
AGRON, a disease frequent in Bengal, and other parts of the Indies, wherein the tongue and ears are in several places, being also extremely rough, and sometimes covered with white spots. The Indians are very fearful of this disease, which they attribute to extreme heat of the sun.

Their remedy is, to chew the black-beeded bsadica, drink from amblycathed liquor, or the juice of large mint.

AGROPOLI, in Geography, a town of the Principato Citera of Naples. on the gulf of Salerno; 26 miles southwell of Cangiano; and 22 miles south-south-east of Salerno. E. lat. 14° 50'. N. lat. 40° 25'.
the following species, viz. 1. As florensis, creeping B. or black squinch, with branches of the panicule spreading, naked, creeping culm, and equal calyces. Dr. Smith describes this species as having a compact panicule, ramose creeping culm, rosette flowers, and calyces equal, lanceolate and pubescent. 15. A. capillaris, fine B. with panicule capillary, spreading, flexuose, and calyces equal, pubescent smooth (slightly roughish, Gmel. coloured). 16. A. falcicula, wood B. with panicule contracted, calyces equal, those of the barren flowers shorter than the corolla, and those of the fertile ones twice as long. 17. A. alta, white B. with panicule loose, calyces equal, and culm creeping. 18. A. pumila, dwarf B. with panicule on one side, culms erect in branches.

19. A. minimia, leaf B. with panicule flexuose, flowers, elliptic, retuse and awnless, and villous corolla. 20. A. centifolia, tough B. with panicule contracted, filiform; flowers linear, and valves parallel. 21. A. virgina, virginian B. with panicule contracted; leaves rolled inwards; pubescent, rigid, spreading out. 22. A. mexicana, Mexican B. with panicule oblong-headed; calyces and corolla acuminate and nearly equal. 23. A. purpurascens, purple B. with panicule contracted, elongate, branches pruned close upright, and flowers unequal and acuminate. 24. A. media, Indian B. with panicule contracted, racemes lateral, erect; alternate. 25. A. filiformis, ciliate B. with glumes of the calyx angular and ciliate. 26. A. paniculata, bearded B. with panicule subspiculate; branches and branchlets fascicled; valves of the calyx and one of the corollas awned, that of the corolla very short. 27. A. kitaibelii, forked B. with spikes subterete, umbellate, floccules ample, acicular, ciliate valves subequal, leaves and sheaths smooth. 28. A. complanata, flat-forked B. with spikes umbellate, smooth; outer ciliate valves awned; flat-tipped leaves and smooth sheaths. 29. A. punnica, prickly B. with panicule contracted, leaves involute, stiff, pungent, the upper ones obliquely opposite, and branching culm. 30. A. vinicola, short-awned B. with culms ascending, calyx coloured, awn nearly straight, from below the middle of the back, about as long as the calyx. 31. A. ovata, ovate-panicle B. with outer petal awned below the tip; panicle ovate, contracted and spikelike. 32. A. odorata, sweet B. having spikes, with the florets pointing one way, heaped together, awnless. 33. A. phylloclinia, plaited-leaved B. with leaves plaited, and spike linear, awnless. 34. A. stiata, with panicule contracted, awnless, flowers acuminate, with one, two or three flaments, and leaves flat, pubescent. 35. A. diandra, with panicule elongate, contracted; flowers pubescent, awnless, diandrous or two-flaminante; and convolute leaves. Gmelin has omitted some of the preceding awnless species, and added the following, viz. A. verticillata, with straight panicle, interrupted by radiate rigid verticillate or whorled. A. pumila, with stiff panicule, having flowers, and an erect culm. A. linearis, with subquaternary digitated spikes, and adpressed alternate, unilaterale floccules. A. procera, with the foot-flanks of the panicle, racemose and somewhat erect, and the flowers hairy and lanceolate. A. coronandiana, with the panicule ovate, patent, the foot-flanks simple; second flowers, and equal, acute, glossy calyces. A. affinis, with contracted panicule; lateral alternates, (awnless, and rough leaves. A. vevnacea, with an erect, very slender panicule; and the awns twice longer than the calyx. A. glomerata, with bifid, glomerate, terminal spikes, and clawed plumose bracteae. A. heterantha, with blind, lateral, solitary spikes, and clawed plumose bracteae. Dr. Stokes has observed that this is an artificial genus, and that the species which are chiefly distinguished by the presence or absence of the awn in the corolla, and which is inconstant, are not precisely ascertained. He therefore recommends particular attention to the open ordered

flat in which the valves of the calyx are found, immediately after the shedding of the pollen and the ripening of the seed, and likewise to the flowers, whether they are furred or chaffed.

The first species, which is annual, is common in fairly corn-fields, and flowers in June and July. It is liable to be smothered. The second, according to Halder, a variety of the former: it is annual, and a native of France, Italy, Switzerland, Carniola, and Germany. The third is a native of Montpellier, Spain, and Siberia, was introduced by M. Thouin, in 1726, and resembles the first. The fourth is perennial, and grows wild about Montpellier. The fifth is a native of Portugal. The sixth is a native of many parts of Europe, and is perennial. Halder and Scopoli rank it amongst the arundines. The Kaimuna Tartars weave mats of it, and that their hovels with it. Goats will eat this stuff rather than eat it. The seventh refers to the former: it is perennial; and a native of Germany and Switzerland and about Verona; these two species are referred by Gmelin to the genus Calamostre, and are the C. arundinacea. The eighth species was collected by Seguier, near Verona. The ninth is common in Sweden, and found in Scotland, in low pastures. The tenth and eleventh were found in the Island of Terceira, by Maffei. The twelfth is found in the sandy lands of Malabar. There are two varieties of the thirteenth, the rough and the smooth, which Dr. Stokes in Withering's arrangement makes a distinct species under the name of A. alpina, and so classified by Gmelin; this is found plentiful in the higher districts in Dorsetshire and the higher parts of the new forest of Hants, and flowers in May and June. But Dr. Smith (Flor. Brit. vol. i. p. 78) refers the A. canina, (a) of Hudson to the species of A. canina, and also the A. vinicola of Withering; and says it is perennial, flowering in July, and found in meadows and moor pastures; and the A. canina (b and c) of Hudson, and A. alpina of Withering, above described, to a distinct species, viz. A. stiata, bristly B. with lanceolate calyces and corolla awned at the base; the own gynoecium and the radical leaflets fimbriate. It is perennial, flowering in July and August, and found on dry heaths, frequently in the west of England, and on the downs near Weymouth. The fourteenth is perennial, a native of most parts of Europe, and found in moist meadows and pastures, and also in thin cold arable lands, where it is very troublesome; for when such lands are broken up and followed, the roots are separated with difficulty from the adhesive foliage. It flowers in July and August. Hudson joins this species with the capillaris, plumea, alta, and sylvatica, under the name of polycarpa; and Gmelin queries whether these and also the virginica are not varieties of the same species, owing their difference merely to the soil; some have supposed that this is the famous orchestona grass. The fifteenth is very common, but chiefly grows on poor, dry and sandy land, and is disliked by cattle, as are the bents in general; it flowers in May and July. Gmelin queries whether it be not a species of alepecarpus. Some have supposed that the A. capillaris of Linnaeus, is the same as the A. vulgarius, which has a spreading panicule, branches bare at the base; florets numerous, calyx inner valve smooth, outer furrowed upwards; blofion inner valve, but half the size of the outer; deciduous. Linnaeus confounded these two plants; but the error was discovered by Dr. Smith. In general habit, says Withering, the plants are very much alike; but the real A. capillaris has the stem, leaves and hules of the calyx quite smooth, as well as every other part of the plant, whilst in the A. vulgarius the stem-leaves are rough, and the hules of the calyx are furrowed on the
keel, as they are in every other British species of agrollis, except the *minus*. Again, in the *capillaris*, the valves of the blossoms are equal, but in the *vulgaris* the inner valve is only half the size of the other. Dr. Smith (Flor. Brit. vol. i. p. 79) characterizes the *vulgaris*, or fine B. as having a spreading panicle, small branches diversified and capillary, equal calyces, interior petal twice as short as the other; and to this species he refers the *capillaris* of Withering; the *capillaris* of others, and the *polyomorpha* of Hudson, and as varieties, the *cinaea* of Withering, the *pallida* of Linnaeus, and the third variety of Withering’s *vulgaris*. It is perennial, flowers in July, and is found in meadows, pastures, and ploughed fields. The sixteenth species is perennial, and grows in molehills, woods, as Bilhopp’s wood, Hampstead, and also in Hornby wood, near London. It flowers in June and August. The seventeenth is perennial, and grows in ditches, marshes, and moil meadows. Withering enumerates four varieties; one with panicled branches, crowded with florets at the base, which flowers in June and July, and is found in wet ditches, bogs, and marshes; a second, with calyx, both valves furcated, supposed to be the preceding plant, when growing in a drier situation, and found amongst wheat, in light sandy loam, flowering from July to September; a third, with the inner valve of the calyx only furcated upward, found in loamy soil, amongst wheat, and in very light sandy soil under the Norfolk coups of turnip husbandry, and also elsewhere amongst potatoes; flowering from July to September; the fourth has both valves of the calyx furcated, the inner only on the upper half; it is found amongst wheat, in light land; flowering from July to September. The three last varieties constitute the greatest part of what is called squithe, in light arable lands; which are called white squithe, to distinguish it from *nigra* and *fusoniera*, which are called black squithe, or couch. Dr. Smith enumerates only two varieties, viz. the *alba*, and *fusoniera*, i.e. marsh and wood B. which he refers to this same species. The eighteenth is a native of Iceland, Sweden, Germany, Switzerland, England in dry places, Wales and Scotland; found in poor barren soil, e.g. heaths near Harrowgate, perennial, and flowering in July. The nineteenth is a native of France and Germany, and has been discovered by Mr. Stillingfleet in Wales; it is common in sandy pastures on the south-west coast of Anglesea: By some it is denominated Bpring-plant, and said to flower early in March and April, and ripen its seed in May. Dr. Stokes refers this species to the *Poa*. The twentieth is perennial, and a native of the East Indies. The twenty-first is an elegant little plant, and called by Browne crab-grass. The twenty-second is a native of South America, flowering the second year, having the appearance of cynna, and introduced in 1780, by Mr. G. Alexander. The twenty-third is a native of Jamaica; the twenty-fourth is a native of India, introduced in 1773, by the Earl of Bute; the twenty-fifth a native of Japan. The twenty-sixth comprehends the *paniculatus* and nonpliellus *alpecurus* in the Linnaean system; the first grows in marshes and wet pastures, and the second in a dry soil, to which the difference is probably owing. The twenty-seventh is a native of the East Indies, found there by Dr. Koenig, and introduced in 1778 by Sir Joseph Banks. It is annual, and flowers in July and August. The twenty-eighth is a native of Jamaica; introduced in 1779; perennial, and flowers in July and August. The twenty-ninth is a native of Arabia and Barbary, used by the Arabs in the hemorrhoids; perennial, and found in dry places off the coast in the country of Nice. The thirtieth is a native of Switzerland and the north of England; found on heaths, meadows and moil pastures, which have been long in turf. Some parts of Hounslow heath abound with it. Dr. Smith (Flor. Brit. vol. i. p. 78) refers the *vulgaris* of Withering to the *cinaea*. The thirty-first is a native of New Zealand: the thirty-second of Cochinchina, near the coast, where it is dried and used for perfuming their clothes; the thirty-third a native of the Suburbs of Canton. The thirty-fourth and thirty-fifth have been referred by some to *cinna*. Dr. Withering mentions some other species, viz. *A. pollyfus*, with the halves of the calyx equal, and the outer valve of the blossom twice the length and breadth of the inner; and its a strong, much shorter than the blossoms, fixed a little beneath its point; some consider this as an annual variety of the *albus* of Hudson, but Dr. W. regards it as a distinct species. It is found in swamp and moil ditches; perennial, and flowering in June and July. *A. pallida* is similar, with the valves of the calyx unequal; the inner valve of the blossom hair-like, very short, and somewhat longer than the blossom, fixed below its middle; and is sufficiently distinct from both the *alba* and *capillaris*: found in the New Forest, Hants, and flowering in May and June. *A. littoralis*, with panicled somewhat like the blossoms of the calm awns; first found on the Norfolk coast by Sir Joseph Banks, perennial, flowering in June. The *A. littoralis*, sea-tide B. According to Dr. Smith (ubi supra) has linear-lanceolate awned calyces, naked corolla; anw sub-terminal, and deciduous calyx. It is perennial, flowers in August, and is found in chesey sea-shores; in salt-marshes near Cleve, Norfolk. *A. nigra*, with scattered panicule, branches bare at the base, florets few; inner valve of the calyx smooth, and creeping root; it is different from the *sulonifera* of Linnaeus, to which some have referred it; found in marly, clays, and other cold wet soil, both in grafts and under tillage; perennial, flowering from July to October. *A. maritima*, with large, rather spreading panicule; longer branches naked, shorter ones crowded with florets at the base; inner valve of the calyx smooth, outer furrowed upwards; gathered by Dr. Pulteney in the sand on our southern sea-coasts; perennial, flowering in June and July. The *A. vulgaris* has been already mentioned. Martyn’s Miller’s Dict. Withering’s Bot. Arr. vol. ii. p. 124-134.

For the propagation and culture of several of the above species, see Grass. For other species, to which the name has been applied, see Aera, *Alpecurus*, *Calamagrostis*, *Cenchrus*, *Melica*, *Milium* and Schoenus.

*Agrostographia*, compound of *agrostis*, *grafs*, and *graph*, definition, *Physiology*, the history, or definition of *grains*, or plants of the grassy kind.

*Agrostographia* is also the title of a learned and laborious work of John Schenck, containing an exact description of about 400 species of grapes; particularly dog’s tooth, cyperus, cyperoideus, ruha, &c. all disposed in a new method; yet the history is far from being complete.

*Agrotiri*, in *Ancient Geography*, the most southern promontory of the island of Cyprus, cal of Limafol. It is a small peninsula, connected with the continent by a very narrow tongue of land, and is now called Cape De Gatti, on account of the great number of cats kept by the monks, who, in the 4th century, obtained permission to establish themselves there, as well as on Mount Olympus, on condition of keeping a great many of those animals for hunting snakes, which had multiplied to an alarming degree; and which, it is said, have no greater enemies than cats. Sonnini’s travels in Greece and Turkey, p. 56.

*A-ground*, in *Sea-language*, expresses the situation of a ship whose bottom, or any part of it, rests upon the ground.

*Agryla*, in *Ancient Geography*, a city of the island
of Sardinia, founded, according to Steph. Byz. by a colony of Athenians.

AGRYPNIA, *wetness*, a privation of sleep; otherwise called watching, waking, vigilis, persiguidum, &c. Among physicians, this is a troublesome symptom in fevers and other disorders. In the Greek church, it is used for the vigil of any of the greater feast-days, observed by the monks and clergy. Du-Cange.

ÁGUA, in Geography. See Oegwa.

ÁGUA, Fort Harbour, is situated about a league north-north-east from Ferrofa harbour, on the east coast of Newfoundland.

ÁGUA de Pao, a small town in the island of St. Michael, one of the Azores. It is situated in a fertile territory, which produces abundance of corn and excellent fruit. W. long. 25° 40'. N. lat. 38° 10'.

ÁGUA, Riu del, a river which falls into Bonaventura bay, on the coast of Popayan, in the South Sea; in about W. long. 77° and N. lat. 3° 30'. It affords good anchorage.

ÁGUA, Resa, a small place in the province of Tras-os-montes, in Portugal.

ÁGUADE, a river which runs into Smienda bay, near Cape Roque, on the coast of Brazil, about W. long. 34° 30'. and S. lat. 5°.

AGUADE, de Saldana, a gulf on the coast of Africa, 15 leagues north from Table bay.

ÁGUADEIR-Toma, a town of Africa, in the empire of Morocco, in the province of Tis, 13 leagues south of Santa Cruz.

AGUADEORE, a river in the island of Cuba, on the south side, and nearly north from the east end of Jamaica. Its mouth is in W. long. 75° 35'. and N. lat. 20°.

ÁGUAAGUIN, in Botany, the name of a shrub among the Africans, which they esteem greatly as a balsamic and vulnerary. The leaves of this shrub resemble those of our common lilac; they grow alternately, and stand upon foot-stalks of half an inch long; and when held up to the light, they show a fine texture of the smaller veins. Philos. Trans. No. 232.

AGUAPECACA, in Ornithology, the name of a Brazilian bird of the moor-hen kind. It is of the size of a pigeon, very long-legged, and has a beak like that of the gallinaceous kind; its back, and the upper part of its wings, are brown, and in each wing they have a sharp horn, or prickle, serving for their defence. Maregrave.

This is the jacana-poca of Buffon, the jacana annata of Briffon, the Brazilian jacana of Latham, and the *Parras Brasilita* of Gmelin's Linnean System, characterised by having the hinder claws very long, and the body greenish-black. At Guiana, where it is common, it is called kapoua, and also kinkin, from its thrill note: these birds are gregarious, and are found in flocks in the ditches, and among the rushes on the sides of the lakes; and they live on fish and water-insects.

AGUARA-QUIYA, in Botany, a Brasil plant, thought to be the *folium vulgare*, or common night-shade, by Ray.

AGUARA-FONDA, a plant, otherwise called viola *filicata* Brasilita. It grows to the height of a foot and an half, or more, with a smooth, round, green, and jointed stalk; at each joint come forth four, five, or more, narrow, ferrated, pointed, green, and unequal leaves: the top of the stalk bears an ear a foot long, smooth, and covered with flowers of a fine violet azure, or the colour of our viola maritisa, confisting of five roundish leaves. The whole flower is not unlike the viola maritisa, and has something of its smell; the root is bright of a moderate thick-ness, and shoots out into abundance of lesser ones, and these again into filaments.

There is another kind, distinguished by the width of its ear of flowers, which represents a helmet of a green colour. It is marked with cubic pits, from whence proceed azure flowers. Ray.

AGUAS, in Geography, a people of South America, on the banks of the river of the Amazons. They are said to be less polished than any other of the Indian nations.

AGUAS Bellas, a small place in the province of Estremadura, in Portugal.

AGUATULCO, Aquateulco, or Guatulco, a town and port of Mexico. Its harbour is large and much frequented. It is situated in the South Sea. W. long. 96° 40'. S. lat. 15° 10'.

AGUBENI, in Ancient Geography, a people placed by Ptolemy upon the frontiers of Arabia Deserta, very near Arabia Felix.

AGUCCHIA Giovanna, in Biography, was an engraver of the 16th century. He engraved the large design for the dome and cathedral of Milan. Strutt.

AGUE, in Medicine, a periodic discafe of the fever-kind, consisting of a cold flowering fit, preceded by a hot one, and going off in a diaphoresis or sweating. If the coldness and flowering be inconsiderable, and only the hot fit, the diseafe is called an intermittent fever. According to the periods or times of the return of the fit, the diseafe is either a quotidian, tertian, or quartan ague, or fever. The cause of Agues, as well as of the remittents of hot climates, is now believed to be the miasmata or effluvia arising from putrid animal and vegetable fabltances mixed, or from the latter alone. See Dr. Jackson, &c. on Fever.

Sir John Pringle accounts for them by means of the principle of putrefaction. The heat of the body, he observes, varies little; and therefore the corruption produced in any of the humours must happen in a determinate time. If we suppose, that in the paroxism, the more corrupted particles of the blood do not at all pass off through the skin with the sweat, but that some part of them is discharged with the bile; their particles coming into the infeetines, and being from thence taken up by the lacteals, and carried into the blood, may there act as a new ferment, and occasion a return of the fit. Thus the corruption of the bile may be the cause of the first fit as well as of those that follow. He further adds, that though all moist countries are subject to aches of some kind or other; yet if the moiiture is pure, and the summers are not close and hot, they will mostly be regular tertian agues, and admit an early cure. But if the moiiture arises from long flagating water, in which plants, fishes, and insects live and rot, then the damps, being of a putrid nature, occasion not only more frequent, but more dangerous fevers, which more commonly appear in the form of quotidianns, and double tertians, than that of single ones. Accordingly they are found to vary with the season, on which the degree of putrefaction in a great measure depends.

These opinions of Sir John Pringle, as far as they reft on putrefactive particles, or ferments in the living body, are entertained only by a few pupils of the Boerhaavian school. The theories of fever in most general estimation at present, are contained in Dr. Darwin's Zoonomia, and Dr. Cullen's first lines.

The symptoms are, heaviness and reaching; a weak slow pulse; coldness and flowering felt first in the joints, thence creeping over the whole body; pain in the loins, and an involuntary motion of the under jaw.

This cold flage varies in its duration and severity with the kind of ague. It is shortlft in the quotidian, and most diffentrent in the tertian.

The cold flage is succeeded by a full strong pulse, differting
AGUEDA, in Geography, a town of Portugal, in the province of Beira, upon a branch of the river Vouga, six leagues north of Coimbra. W. long. 8° 30'. N. lat. 45° 30'.

AGUDEM, a river of Leon, which passes by Ciudad- Rodrigo.

AGULON, one of the Laccadive islands, in the Indian sea. E. long. 73° 25'. N. lat. 11°.

AGUER, a sea-port town of Africa, situated at the foot of Mount Atlas, in the kingdom of Morocco. This town was built by the Portuguese, near a remarkable cape, on the north-west of the mouth of the river Sas, now called Cape Glee. It was taken by Diego Lopez de Seguerra, who afterwards made a voyage to the East-Indies. As the town had a convenient harbor, and was famous for its fisihery, this adventurer erected a strong fort to defend it. He sold it to Emanuel, king of Portugal, who added other fortifications, and a strong garrison. But after a vigorous defence, in which the enemy loft 16000 men, it was surrended, A.D. 1536, to Mohammed, who became emperor of Morocco and Fez; and in revenge for his loss, he put the whole garrison to the sword, except the brave governor Mon Roy, whom he spared and favored for the sake of his daughter, Donna Mercia, who conferred to marry him, on condition of being allowed the free exercice of her religion, and of being regarded as his lawful wife.

AGUESSEAU, Henry Francis D', in Biography, a chancellor of France, was born at Limoges in 1668, of an ancient family of Saintonge. He owed the first rudiments of that literature to which he was devoted, to the instruction of his father, and to his distinguishing taste for poetry to the society of Boileau, Racine and other eminent writers of that clas. After having held the office of advocate-general of Paris for ten years, he was appointed procureur-general in 1700; and in this situation he distinguished himself by introducing several regulations, which contributed to the improvement of jurisprudence. He also directed a particular attention to the hospitals, and to the hardships occasioned by the scarcity in 1709, which indicated the amiable philanthropy of his temper, and in which he was singularly useful. He also approved himself the strenuous defender of the liberties of the Gallican church, in opposition both to Lewis XIV. and the chancellor Voisin, who solicited his concurrence in favour of the bull Unigenitus. After the death of Voisin, and in the regency of the duke of Orleans, he was made chancellor; and performed the duties of this office with that eminent wisdom and firmness, which the circumstances of the times demanded. In his resistance of the financial project of Law, he was for some time successful; but when the regent determined to adopt it, he was constrained in 1718 to retire to his country-fest at Fresnes; but in 1720 he was recalled and reinstated in his office. He was again deprived of it in 1722, recalled by Cardinal Fleury in 1727, and reinvested with the seal in 1737, which he held till his death. From the year 1729 to 1749 he was sedulously employed in reforming the laws, and remedying many notorious abuses that disgraced and obstructed the administration of them. His object was to supply their defects, and to facilitate the execution of them, without changing their fundamental principles; but in this extensive and laborious employment his progress was slow; and he met with difficulties, from his extensive views and from a regard to the profits of the legal profession, which produced indecision in his own judgment, and served to retard his dispatch of business. For the flowerets of some of his determinations, he makes this very reasonable apology: "when I recollect (said he) that the
the decree of a chancellor is a law, I think myself permitted to take a long time for consideration." His life, though affably occupied, was prolonged by his temperance and equanimity; but in the year 1750 his increasing infirmities admonished him of the necessity of withdrawing from public employments; and in 1751 he closed his life at the advanced age of 83 years.

Voltaire calls him the most learned magistrate ever possessed by France. Besides the languages of antiquity, he was acquainted with all the principal modern ones; and to his knowledge of the history of all ages and nations, he added that of jurisprudence in its most extensive sense. During his exclusion from office, he made no attempts for being relieved; but always manifested a disposition superior to the honours which his talents and merit claimed, and a desire to be useful rather than to aspire after power and to accumulate wealth. Of his frugality, and of the various emoluments annexed to the dignities he possessed, the only fruit that remained was his library, in the improvement of which he limited himself to a certain annual expense. In the periods of his retirement, which he called "the fairest days of his life," he devoted himself to the maturity of his plan of legislation, to the education of his children, and to a variety of literary pursuits, among which were mathematics and the belles lettres; and these, together with agriculture, he deemed his recreations in the intervals of his severer occupations. However, when the public demanded his services, he surrendered the satisfactions of retirement and the pleasures of domestic life. Having in 1694 married Anne le Febure d'Ormeillon, it was said on this occasion, that virtue and the graces were now first seen in alliance; but he had the misfortune to lose her in 1735. His grief corresponded to the affection he felt for her. Nevertheless he hastened to devote himself to the functions of his office; alluding, "that his services were due to the public, and it is not just (said he) that it should suffer by my domestic affliction." We are informed, that he never paused a day from his childhood, without reading some parts of the scriptures; and he was heard to say, that this was the balm of his life. Of his works nine volumes 4to. have been published. In these, he is said to have thought like a philosopher, and spoken as an orator. His eloquence has the force of logic and the order of geometry, united to the riches of erudition and the charms of persuasion. His style is chaste and harmonious, but deficient in warmth. When he once confided his father in a discourse which he had taken pains to compose, and which he wished farther to improve, his father gave his opinion: "the fault of your discourse is its being too elegant; it will certainly be left so if you touch it again." Nouv. Dict. Hiller. Biog. Dict.

AGUGA, Cape, lies southward of Puira, on the coast of Peru, in South America. S. lat. 66°. W. long. 82°.

AGUIAS, a small town of Portugal, in Almocce, to the west of Elvas, and to the east of Lisbon. The territory about it produces grain and oranges. W. long. 6° 41'. N. lat. 38° 50'.

AGUILA. See Obelisk.

Agugia is also the name given by the Italian fishermen to the agus of Oppian, called in English the car-fish.

AGUICUAN, or the island of the Holy Angel, in Geography, one of the Ladrone or Marianne islands, lies in the Southern Sea, in lat. 14° 43'; about 40 miles from Zarpasa; and about a league south-west of Timian. It is a small island, about nine miles in compass, mountainous, but pleasant, and forcibly well inhabited.

AGUILA, Aguela, of Ouguela, a town of Africa, in the kingdom of Fez, situated on the river Aguila or Er-guela, and giving name to a district, which is for the most part sandy and barren, but in some places so well watered as to afford plenty of dates; and it is separated from Barca by a mountain called Meys, which affords excellent pastures.

AGUILAR, a town of Spain, in Navarre, four leagues south-west of Estella. E. long. 2° 30'. N. lat. 42° 55'.

AGUILAR del Campo, a town of Spain, in Old Castile, situate on the Alhama; three leagues from Calahorra.

AGUILLANEUF, or Aquillaneuf, compound of the French, au, pour, misled, and Pan nef, i.e. the new year; a form of rejoicing used among the ancient Franks on the first day of the year.

Its origin is traced from a druid ceremony: the priests used to go yearly in December, which with them was reputed a sacred month, to gather mistletoe off the oak in great solemnity. The prophets marched in the front, singing hymns in honour of their deities; after these came a herald with a cædæus in his hand; these were formed by three druids a-bread, bearing the things necessary for sacrifice. Lalt of all came the chief, or arch-druid, accompanied with the train of people.

The chief druid climbing the oak, cut off the mistletoe with a golden sickle, and the other druids received it in a white cloth. On the first day of the year it was distributed among the people, after having blest and consecrated it by crying au gui Pan nef, to proclaim the new year.

Of later times the name Aquillaneuf was also given to a sort of begging, practiced in some dioceses, for church tapers, on a new year's day, by a troop of young people of both sexes, having a chief, &c. It was attended with divers ridiculous ceremonies, as dancing in the church, &c. which occasioned the synods to suppress it.

AGUILLAS, Cape, in Geography, lies to the east of the Cape of Good Hope. See Cape Needles.

AGUILLES, or Ouguelles, cotton cloth, manufactured at Akopp.

AGULLON, Francis, in Biography, a jesuit of Brussels, was professor of philosophy at Douay, and of theology at Antwerp. He was distinguished by his knowledge of mathematics, and is said to have first introduced studies of this kind into Flanders. He wrote a book of optics, intituled, "Opticorum, lib. vi. Philopolijsa justa ac Mathematicis utilis," which was printed at Antwerp, in 1613, fol. He was employed in finishing his "Cutaniares et Diodotae" at the time of his death, which happened at Antwerp, in 1617, in the 50th year of his age. He is also said to have written a treatise of "Projections of the Sphere." He understood several languages; his judgment was accurate; his learning extensive; and his patience and fortitude under severe trials were very signal. Under the paroxysms of the algues, to which he was subject, and which were very trying, just before his death, he repeatedly said: "Let God's will be done—I submit to it—I am willing to form myself absolutely upon the divine pleasure—I have now the torments which I often wished for, and desired of God." Gen. Dict.

AGUILON Point, in Geography, a long narrow point, in a curvilinear form, north-east of the island of Rho, on the coast of France, and about three leagues north-west of Rochelle. To the east of Aguillon the bay contracts and terminates.

AGUIRRE, Joseph Saenz De, in Biography, a learned Benedictine of the 17th century, was born in 1620, at Llogrono, in Spain, and read lectures in theology at the university of Salamanca, where he took his degree of doctor of divinity. He was also censor and secretary of the supreme council of inquisition, and was honoured with a cardinal's hat by pope Innocent XI. in 1686. He died at Rome, in 1699. His life was exemplary; and his writings numerous. He is said to have retracted the doctrine of probability, which he had maintained, as soon as he found that it was inconsistent with the strictness and purity of the Christian morals. His publications,
publications were very various. Besides his works in theology, which amount to several volumes; a commentary on Aristotle's Ethics, and three folio volumes of philosophy, he published, "a Collection of the Councils of Spain," with an historical Introduction, of which extracts are given in the Acta Eruditorum, Feb. 1688; but as several of his dissertations are written in defence of the spurious decreets of the first popes, Dupin has objected to them in his Biblioth. des Auteurs Eclecl. tom. xvi. p. 238. Ed. Amlit. 1711. Gen. Diet.

AGUL, in Botany, a small shrub very prickly; its leaves are longish, and resemble those of the knot-grass; it abounds with flowers of a reddish colour; there are succeeded by red fruits; its root is long, and of a purple colour.

This plant is otherwise called Alhagi murorum, by Rauwolf; it grows in Arabia, Persia, and Mesopotamia. See Hedgesary.

AGUL, in Geography, a river of Russian Siberia, which runs into the Kani. E. long. 125° 24'. N. lat. 55° 16'.

AGUNA, a town of Africa, in the kingdom of Benin.

AGUNUM, in Ancient Geography, now Inniken, a town of Rhethia, placed by Ptolemy in Norica, and by M. d'Anville to the north of the Carpathi Alps, and north-west of Julien Carnicum.

AGURAH, in Jewish Antiquity, the twentieth part of an ancient silver shekel. It was otherwise called gerah and kehitah. The Seventy render it 60000.

AGURIUM, Agryrum, Agrirum, of Agraena, now S. Phillipps d'Argyrone, in Ancient Geography, a town in the interior part of Sicily, placed by M. d'Anville in the road from Enna to Catania.

AGUSADURA, in Ancient Cuffium, a fice due from vassals to their lord, for sharpening their plowing tackle.

Anciently the tenants in some manors were not allowed to have their rural implements sharpened by any but those whom the lord appointed; for which an acknowledgment was to be paid, called aguusadura, in some places agriforme, which some take to be the same with what was otherwise called vellage, from the ancient French velille, a plough-share. Du-Cange.

AGUSTINE, in Mineralogy, a barbarous term, compound of Greek and Latin, meaning without tole, inipid, by which professor Trommfoff has distinguished a supposed new earth, discovered by him in the year 1800.

The mines of Johan-Georgenhaas contain a mineral, which hitherto has been taken for the beryl: this being analyzed for the purpose of ascertaining whether glycine was one of its constituent parts, yielded unexpectedly a new earth, which, from its forming inipid faults with acids, has been called by its inventor, Agutine.

This earth, when pure, has a great resemblance to alumine, adheres very feebly to carbonic acid, hardens by exposure to fire, and is insoluble in water. It differs, however, from pure clay, in the following particulars: 1. It is absolutely insoluble in any of the three alkalies, whether caustic or carbonated, in the moist or the dry way. 2. With acids it combines, readily forming nearly inipid faults. 3. It is equally soluble after induction by fire, as before. 4. Sulphuric acid forms with it a salt of difficult solution, and perfectly inipid, but which by a slight excess of acid, becomes soluble and crystallizes in lars. 5. Its acicular phaloshat is also very soluble. 6. But the acetate of Agutine is scarcely at all so.

There are all the facts that are as yet known concerning this substance; it rests entirely upon the authority of Trommfoff, and as neither he nor any other chemist have since made the smallest mention of it, even this slight notice might here seem superfluous. Annales de Chimie, vol. xxxiv. p. 133.

AGUTI, the cavia aguti of Linnaeus, in Zoology, has a very short tail; the upper parts of the body are of a brown colour, mixed with red and black, the rump of a bright orange, and the belly yellowish. Authors mention three varieties, viz. The Jeffrey aguti, or cavia aguti cuvieri, with a very short tail, four toes before and three behind, and a yellowish belly. This is the cuneiform aguti of Boffi and Gronovius, the larger mouse of Brown, the American wild mouse of Ray, with the hair and voice of a pig; the aguti or acuti of Madera, &c, the long-nosed cavy of Pennant, and the agouti of Buffon. It is about the size of a rabbit, and inhabits Brazil, Guiana, Cayenne, and other parts of South America and the West India islands. 2. The larger agouti, or cavia A. leporina, with a very short tail; the upper parts of the body reddish, and the under white. This is the hare-like moutie of Linnaeus, having four toes on the fore, and three on the hinder feet; the Jama coney of Boffi; the Java hare of Catesby; and the Java cavy of Pennant. It is of the size of a hare, and inhabits Surinam and the hotter parts of South America. 3. The American agouti, cavia A. Americana of Gmelin, and the American coney of Boffi and Seba; has a very short tail, and is clothed with coarse reddish fur. These three varieties inhabit South America, and some of the West India islands, particularly the Antilles. The first has a long nose, the upper lip divided; short, broad, rounded ears; black eyes; tender, and almost naked legs, of a black colour. The second has a small tender head, with prominent naked ears, rounded at the extremity. The hinder parts in both are larger than the fore parts, and the legs are long. The third variety is little known. These animals inhabit hollow trees, and burrow in the ground. They live on vegetables, which they collect in the day, and carry to their dwellings; they fit on the hind legs, and feed themselves with their paws; and when fattened with food, conceal the remainder; they grunt like pigs; when hunted with dogs, they run fast, with a kind of hopping or leaping pace, like that of a rabbit or hare, and take shelter in their holes or hollow trees; when irritated, the hair rizes on the back, and they strike the ground with their hind feet; when young, they are easily tamed; and will of their own accord, go out and return again. They are very voracious, and grow fat; and their flesh is white and savoury, and eaten in South America. The female brings forth at all times of the year, and produces three, four, and sometimes five at a time.

AGUTI TREVA infula Marigiana, in Botany, a plant mentioned by de Laet. It has the leaves of the orange-tree, only thinner, a dewy flower, a large fruit, with a greenish rind, which contains kernels like those of the pomegranate, thin, sweet, and not ill-tainted.

AGUTIGUEPA obi Brahischibus, in Medicine, the name given by many authors to the arrow-root, or segutaria alexipharmica of the West Indies.

AGY, in Antiquity, a kind of obelisks consecrated to Apollo, and placed in the vestibules of houses, for their security.

The agyi were no other than huge stones, or perhaps sometimes timber, having either a circular or square base, and terminating in a point at the top, faced to Apollo, or, as some say, to Bacchus, as protector of the high-ways. Others will have them to have been erected to both those deities. Suidas and Pithicus. They had sometimes the head of Apollo, Bacchus, or Mercury; and Steph. Byz. says, that they served like our direction- polls, to show the way to any place.

AGYLLA, (Cervatoris), in Ancient Geography, a town of Etruria, near the sea, is called by the Pelagi, who came thither
thither from Thessaly. It was afterwards called Corte, as Strabo (Geog. tom. i. p. 337.) informs us, from this circumstance, that the Lydians, hearing the inhabitants frequently repeating to them the Greek expression *καταφλιτος*, i.e. *rejoice*, took this to be the name of the city, which it afterwards retained. Others, thinking this etymology more fanciful than just, deduce Agylyia from *gilob*, water, as they had fountains in the neighbourhood; and Cerc might be formed from *cari* or *caris*, a town, in the language of the Lydians. The sons of Tarquin were banished to this town; and hither the veil was sent, when, in the year 363, the Gauls laid siege to Rome. The laws and police of this city are much commended. History informs us that it united with the adherents of Tarquin against Rome; and that it afterwards demanded and obtained a truce of 100 years. It was one of the first cities which became municipal. Strabo says, that in his time, there remained only the ruins of this famous city; and it was known only by its baths.

AGYLLÆI, in Ancient History, a denomination given to the Palygii in Etruria. Infaluated, as it were, in this country, they preferred, with little alteration, the manners and religion of the ancient inhabitants of Greece; they furnished considerable fleets, and aided the Carthaginians with 60 vessels in their war with the Phocæans, who had established themselves in the island of Sardinia; and though they were vanquished, they made many prisoners, whom, according to Herodotus (lib. i. 167. p. 79.) they put to death. They availed a treasoure at Delphi, by transmitting thither a tenth of their maritime profits; and by their commerce, and their piracies on the coast of Italy, and amidst the islands of the Ægean sea, they acquired a degree of power, which rendered them important allies or formidable enemies to their neighbours. Herodotus says, that their power was considerable in his time; and that, in consequence of an oracle, they had instituted funeral sacrifices and annual games, which they then celebrated. These people, who were sometimes called Tyrrenians, sent succour to the Athenians in the Sicilian war, not long before the ruin of Veii by the Romans. They formed an alliance with the Romans, which gave them all the advantages belonging to Roman citizens, without the charges attending them; and they formed, under the name of Cærites, the third order of the republic. The Cærites bore arms in the Roman army, and were almost always united to the Romans, as Livy (lib. vii. c. xx.) informs us; and they were considered, not merely as allies, but as a part of the nation. At length, defeated by the Roman marine, which found more spacious and convenient ports, and loosing its commerce, Cerc declined, and the inhabitants, who were Romans, were indifferently blended with the other citizens.

AGYNEIA, formed of *α* priv. and *γυν*., a wife, in Botany, a genus of the *monocotyledonae* class and order, according to Martyn; but in Gmelin's Linnaeus, of the *tricoccæ* class and order, of the *Euphorbiæ* of Jullieu. Its generic characters are, that the male flowers are below the female; the calyx is five-lobed; the leaflets oblong, obtuse, equal, and permanent; no corolla; in the male, instead of filaments, a column shorter than the calyx; three or four stamens, oblong, growing to the column below the top; in the female flowers, the germ of the fize of the calyx, sub-ovate, obtuse, perforated at top with a fuchnotted hole; neither leafly nor stigma: the pericarpium supposed to be a tricoccous capsule. There are two species, viz. 1. *A. impudica*, with leaves smooth on both sides. 2. *A. pubera*, with leaves downy underneath: both species are natives of China.

AGYNIANI, in Church History, a sect who condemned all use of flesh, and marriage, as not instituted by God, but introduced at the instigation of the devil.

The word is compounded of the privative *α*, and *γυν*., woman. They are sometimes also called *Agyneianists* and *Agyiins*; and are said to have appeared about the year 604.

AGYRTÆ, in Antiquity, a kind of strolling impulators running about the country, to pick up money by telling fortunes at rich men's doors, pretending to cure diseases by charms, sacrifices, and other religious mysteries; also to expiate the crimes of their decafed ancestors by virtue of certain odours and incantations; to torment their enemies by the use of magical verses, and the like. The word is formed of the verb *αγρωτευμεν*, I concent; alluding to the practice of quicks, who gathered a crowd about them. See AGRUSCATES.

AGYRTUS, in Entomology, a name given by Gramer to the *fæculo phereclus* of Gmelin's Linnaeus.

AHA, or AHA, in Zoology, a name given by the Persians to the *caorus pygargus* of the Linnaean system, or the *tall-er* ROE of Pennant, which has no tail, and three-forked horns. It inhabits the lofty mountains of Hircania, and of Ruffia and Siberia, beyond the Volga; and at the approach of winter descends into the plains and becomes hoary: it is called by the Ruffians *dikeja roza*, and by the Tartars *faiga*. This animal resembles the roe, but is much larger, being of the same deep colour, with a large bed of white on the rump and buttocks, extending up the back; the fur is thick, in spring rough and erect, on the limbs and belly yellowish; the underside and the space about the nose is black; but the points of the lip is white; the hairs of the eyes-rids and round the orbits are long and black; the horns are very rugged at the bases, and full of knobs; the ears are covered on the inside with a very thick white fur. Gmelin's Linn.

AHAB, in Scripture Biography, one of the kings of Israel, was chiefly distinguished by his impieties. He succeeded his father, A. M. 3086; married Jezebel, the daughter of Ethbaal, king of the Sidonians, or rather the Tyrians; and at her introduction instigated the idolatrous worship of Baal among the Israelites. In his wicked reign there was a drought of three years continuance, probably the fame with that mentioned by Josephus, (Ant. lib. viii. c. xvi. § 2.) which happened, A. M. 3066. With a small force he obtained a signal victory over Benhadad, king of Syria, who had besieged Samaria. In a subsequent war, he endeavoured to elude the enemy by a change of clothes, but was accidentally killed by an arrow, about the year 897 before Christ. The despotic character of this prince, and the savage cruelty of his wife Jezebel, are strongly marked in the anecdote related concerning Nahob's vineyard. 1 Kings xvi. 29—33. xx. xxi. xxii. Gen. Dict.

AHÄTULLA, in Zoology, a species of *coluber*, in the order of Serpents. It is found in Aia and America, about three feet 14 inches long, of a greenish-gold colour, with the skin, sometimes visible between the scales, black. Its head is elongated and narrow, with a black band over the eyes, and a tetradentatous tail. By some authors it is called the long green Borneo snake, and the bungbattraga of Amphbony. Gmelin.

AHALOTH, in the Materia Medica, the Hebrew name used by some writers for the *ligum-abies*, or alba wood.

AHANINGER, in Ichthyology, a name given by Albertus and others, to the fish called by authors *acous vulgaris*, and by us the GAR-FISH.

AHASUZ. See AAHUS.

AHASUERUS, in Scripture History, was the king of Persia,
Persia, who advanced Esther to be queen, and at her request delivered the Jews from the detraction plotted for them by Haman. 

AHIHEP. "AHE."

AHEEN, in Geography, a tribe of the RAGPOUTI, in India.

AHER, a town of Persia, in the province of Alderbeizan; 30 miles north-west of Ardevil.

AHIIAH, in Scripture History, a prophet of Shiloh; who is supposed to have delivered two oracles from God to Solomon, one encouraging, whilst he was building the temple (1 Kings vi. 11), and another threatening, expressive of dispersion on account of his misconduct, (1 Kings xi. 6). He is one of those who wrote the annals of this prince, 2 Chron. ix. 29. He also predicted the usurpation of Jeroboam, declared the calamities that would befal his house on account of his idolatry, and also foretold the death of his son Abijah, 1 Kings xiv. He lived to an advanced age; but the time and manner of his death are not recorded.

AHIAARAZ, son of Zadok the high priest, succeeded his father about A.M. 5000, under Solomon. During the rebellion of Abfalon, he informed David of the resolution adopted in his council; and he and Jonathan escaped their pursuers by being concealed at Baharin. Ahamaz was the first who gave intelligence to David of Abfalon's death. He was succeeded in the priesthood by Azariah. 2 Sam. xv. 17. xvii. 17. 1 Sam. xxiii. 18-20. 1 Chron. vi. 9.

AHITHOPHEL, a native of Gileb, who, after having been David's counsellor, joined in the rebellion of Abfalon, and asisted him with his advice. Hushai, the friend of David, was employed to counteract the counsels of Ahithophel; and to deprive Abfalon, under a pretence of serving him, of the advantage that was likely to result from the measures which he proposed. One of these measures was calculated to render David irreconcilable, and was immediately adopted; and the other to secure, or to slay him. Before the half counsel was followed, Hushai's advice was delayed; and he recommended their assembling together the whole force of Israel, putting Abfalon at their head, and overwhelming David by their number. The treacherous counsel of Hushai was preferred to that of Ahithophel; with which he was diligent and hastened to his house at Gileb, where he put an end to his life. He probably forewore Abfalon's defeat, and dreaded the punishment which would be inflicted on himself as a traitor, when David was re-established on the throne. A. M. 2981. Ante Chrift. 1023. 2 Sam. xv.-xvii.

AHILDA, in Geography, a bailiwick of the principality of Liineburg-Zell, in Germany, lying on both sides of the Aller, which in this bailiwick receives the Leine and Bohme. It is one German mile and a half in length, and as much broad; and confines of champagnia, heaths, and sandy grounds; and, to the south of the Aller, has good marsh lands and pasturage. Its woods are chiefly oak; and great quantities of timber are conveyed in floats to Bremen. The inhabitants carry on a considerable trade in hores, cattle, wool, hay, and wax.

Ahlden is also the name of a town situate on the old Leine, near the Aller, from the course of which it derives its name. Sophia-Dorothea, concho to king George I., after her separation, resided in the palace of this town, from 1694 to 1726.

AHLEM, a voigt, or district of the principality of Calenburg, in Germany, containing seven villages; the chief of which is Limmer.

AHL, a small town of Munster, in Westphalia, situate on the Werfe, which is summoned to the land-diets, contains a collegiate church, two nunneries of Augustine, and a princely and rural court. See ALLEN.

AHLWALTERT, Peter, in Biography, professor of logic and metaphysics at Griefswalde, was born of mean parentage, in that city, February 14, 1710. Having made
made considerable proficiency in the Greek and Latin
classes, he became a student of theology in 1727; but
applied chiefly to mathematics and philosophy. In three
years he removed to the university of Jen; and in 1732,
returned to Grieswale, where he read a course of lec-
tures on mathematics and philosophy. In 1743, he be-
came an adjunct of the philosophical faculty in that
place, and nine years after was chosen professor; he also
preached often with great approbation. He largely contrib-
ted to the critical researches of the society at Grieswale, of
which he was a member. He founded also the order of
the Abolites, and wrote a treatise on the occasion, entitled,
"The Abolites." His other principal works are, "Con-
siderations on the Confusion of Augsburg;" "Thoughts
on the Powers of the Human Understanding;" "An
Introduction to Philosophy;" "A Treatise on the Im-
mutability of the Soul;" and "Brontothologia, or
Thoughts on thunder and lightning." He is said to
have been so accurate in his composition, that he never
corrected what he had once written. He died March 11th,

AHMED Kham, one of the race of Jenghis or Zingis,
was the son of Halaku, and brother of Abaka khan, whom
he succeeded as emperor of the Moguls, in 1282. He
assumed the name Ahmed, on his embracing Mohammedism;
and on this occasion, he offered protection to all Muf-
lims, in a letter to the Sultan of Egypt and Syria. This
change of religion offended the princes of his family to
such a degree, that he could never regain their affec-
tion. His nephew Argun raised an army against him, but he
was soon defeated and taken prisoner. He was afterwards
released by some conspirators, and having killed the
emperor's principal officers, he purloined and overtook him;
and delivered him up to his mother-in-law, who, in revenge
for the loss of her own sons whom Ahmed had caused to
be slain, put him to death, after a reign of two years and
390, &c.

AHMEDABAD, or Ahmed's City, in Geography,
the capital of the province of Guzerat in India, so called
from Sultan Ahmed, who was king of that province, and
kept his court in that city; it is 224 measured coss distant
from Delhi, and 86 coss from Surat. The city is situated
in a delightful plain, watered by the little river Sabremelli.
The walls are built with brick and lime, and flanked at cer-
tain distances with large round towers and battlements.
It has 12 gates; and, including the suburbs, is about four
and a half miles in length. On the west side is the castle,
valled with freestone, and as fagons as a little city; the
canavanery is on the south of the king's square, which is
700 paces long and 400 broad, plantated round with trees,
and its chief ornament. Near this square is the king's
palace with apartments richly ornamented; and in the mid-
dle of the city is the English factory. The Hindoos have in
this place, which, from an eminence, appears like a wood
being full of gardens, an hospital for sick birds, and an-
other for sick beasts. For magnitude and wealth, this
city is little inferior to the best in Europe; and the reve-
ue which it yields, is generally reckoned to be ten times
as much as that of Surat. Traier's Kuli Khan. p. 29.

AHMEDNAGUR, a city in the province of Dowla-
tabad in India, distant from Delhi 280 measured coss.
Aurangzebe died in this city. Traier's Kuli Khan. p. 35.

AHMELLA, in Botany. See ACMELLA.

AHOLIBAH and AHOLAH, in Scripture History, are
two figured names, used by Ezekiel (ch. xxiii. 4.) to denote
the two kingdoms of Judah and Samaria. They are re-
presented as fillers of Egyptian extraction; Ahola being
Samaria; and Aholibah, Judah. They both prostituted
themselves to the Egyptians and Assyrians, byimitating
their idolatrous and wicked practices; and for that reason
they were made captives and reduced to the most ignoni-
mous and cruel servitude.

AHONI, in Geography, a sea-port town of Africa, on
the coast of Benin.

AHOUAI, in Botany, the name of a genus of plants,
called by Linnaeus CERBERA.

AHOUAS, AHUAS, or AHUAT, in Geography, a town
of Perfa in the province of Chufilian; about 240 miles
south-west of Ifipahan.

AHIR. See AHIR.

AHRAHAB, a town of Asia in the province of
Diarbekir, 30 leagues south of Diarbekir.

AHRENSBECK, a town of Germany, in the duchy
of Holstein; 12 miles north-north-west of Lubeck; and
also a bailiwick.

AHRENSDORF, a town of Germany, in the middle
mark of Brandenburg; six miles south-south-east of Pots-
dam.

AHRIMAN. See ARIMANUS.

AHRWEILER, a small town of Germany, in the
electorate of Cologne, seated on the river Ahr, and furnish-
ing good wine. It is eight leagues north-west of Coblenz.
E. long. 6° 43'. N. lat. 50° 35'.

AHSA or AHASA. See AHOUAS.

AHU, in Zoology, the ibex capensis of Kolhen, the
kevel of Buffon, the flat-nosed antelope of Pennant, and
the antelope Krevella of Gmelin's Linnaeus.

AHUCYATLI, the name of an American serpent,
approaching to the nature of the hemorhous and rattle-
snake, but larger than the former, and wanting the rattle
of the latter; it is as fatal in the effect of its poison as
any known species of serpent. Ray.

A-HULL, in Sea-language, denotes the situation of a
ship, when all her sails are unfurled, on account of the vi-
olence of a storm, and when, having lifted her helm to the
lee-side, the two seas nearly with her side to the wind and
sea, her head being somewhat inclined to the direction of
the wind.

AHUN, in Geography, a town of France, in the de-
partment of the Creuse, and diocese of Gueret; three leagues
south-east of Gueret. E. long. 1° 52'. N. lat. 49° 5'.

AHUYS, a town of Gotland, in Sweden, in the pro-
vince of Schonen; about two leagues south-south-east of
Christianiafbae, near the Baltic sea. This is, as it were,
the warehouse where the goods destined for Christianiafbae
are deposited. It has a good harbour, and was formerly
a strong town, but is now decayed. E. long. 14° 10'. N. lat.
50° 20'.

AI, called by the LXX GAI, by Josephus Aina, and
by others AYAM, in Scripture Geography, a town of Pa-
litane, situate west of Bethel, and at a small distance north-
west of Jericho. The 3000 men, first sent by Joshua to
reduce this city, were repulsed, on account of Achab's
sin, who had violated the anathema pronounced against
the city of Jericho, by appropriating some of the spoils.
A.M. 2553. After the expiration of this offence, the
whole army of Israel marched against AI, with orders to
treat this city as Jericho had been treated, with this dis-
ference, that the plunder was to be given to the army.
Joshua, having appointed an ambush of 30,000 men,
marched against the city, and, by a feigned retreat, drew
out the king of AI with his troops; and upon a signal

given, by elevating his shield on the top of a pike, the men in ambush entered the city and set fire to it; and thus the soldiers of Ai, placed between two divisions of Joshua's army, were all destroyed; the king alone being preferred for a more ignominious death on a gibbet, where he continued till fun-fet. The spoil of the place was afterwards divided among the Israelites. The men appointed for ambush are, in one place, said to be 30,000, and in another 50,000. For reconciling this apparent contradiction, most commentators have generally supposed, that there were two bodies placed in ambush near the Bethel and Ai, one of 25,000 and the other of 50,000 men; the latter being probably a detachment from the 30,000 hill feet, and ordered to lie as near to the city as possible. Maimon allows only 50,000 men for the ambush, and 25,000 for the attack. As for the signal, used by Joshua on this occasion, the Rabbins suppose that the shield was too small for this purpose, and that it must have been the staff belonging to one of their colours, in which opinion Chevaller Polard acquiesces; adding, that the whole colours were used on this occasion, the part being substituted, agreeably to the figurative language of the text, for the whole. It has been suggested, that this was one of the fire-pots, which are employed as en- signs by the eastern caravans, whose smoke would ascend to a great height, be easily seen, and signify the fate intended for the city; and as the frame and staff of this instrument were of iron, it answers to the translation of the LXX and Aquila. Joshua viii. 19. Patrick, in loc. Calmet.

AI, in Zoology, the Bradypus rideolylus of Linnaeus, or Sloth, with three-toed feet and short tail.

AlA, or Alia, in Ancient Geography, a river of Italy which discharged itself into the Tiber, about 19 miles above Rome. On the banks of this river, 200 Fabians were destroyed in their engagement with the Veii, and the Romans were defeated by the Senones of Gaul, conducted by Bremus.

AJABIRE, or Ajavira, in Geography, a town of South America, in Peru; 35 leagues south of Cufco.

AJAH, ת"א, a Hebrew term, which St. Jerome translates vulture. Bochart supposes it that denotes the merlin; the Syriac renders it raven, and the Arabic owl. Our translation (Job xxvii. 7.) renders it vulture; but (I.c. xiv. 14. Deut. xiv. 13.) kite. It is evidently a species of unclean bird, and most probably the vulture or kite, so called from its gluttony, or from its note. Aim (Jer. i. 39.) may perhaps be the plural of Ajah, and signify flights of vultures, which in some countries are very numerous; though Bochart conceives them to be jackals. Calmet, Bochart Op. tom. iii. p. 193. &c. Ed. Villem.

AJAIAI, in Ornithology, the name of a Brazilian bird, of the Platalea, or Spoonbill-kind, called by the Portuguese Colobara. Its specific character is, that its body is blood-coloured. It is exactly of the same shape, but somewhat smaller than the European species, and its beak is in the very same manner broad at the end, with a furrow parallel to the margin, and of a cinerous-white colour. It differs from the European species, by the roso or carnation which paints the white ground of its plumage on the neck, the back, and the sides; the wings are more strongly coloured, and the red tint turns into a crimson on the shoulders, and the covers of the tail, of which the quills are rusty; the slight of tho's wing is marked with fine cartilage; the head and throat are naked and whitish; the legs grey; and the claws black. These beautiful colours, says Buffon, are found only in the adult.

This species is the Plata roja of Drillon, the P. incarnata of Sloane and Ray, the Brazilian Spoonbill, called Alouette, of Maregrave and Willughby, the Platale de la Touche de Buffon. There is a variety, called Platale de Buffon, which Buffon supposes to be the same bird in its adult state. This rose-coloured Spoonbill is common about the shores of rivers, feeds on small fish, and is, says Maregrave, of an agreeable taste.

It is diffused in the new continent from north to south, from the coasts of Mexico and Florida to Guiana and Brazil. It is also found in Jamaica, and probably in the adjacent islands; but the species is no where numerous. In the morning and evening the Spoonbills are seen on the sea-shore, or resting on trunks that float near the beach; but about the middle of the day in very sultry weather, they enter the creeks, and perch high on the aquatic trees. However, they are not very wild; as they pass at sea very near the canoes, and on land they will allow a person to approach them within gun-shot. Buffon's Birds, vol. vii. p. 327. Eng. Ed.

AJALON, in Scripture Geography, a name given to four different cities, viz. one in the tribe of Dan, between Timniah and Beth-heim, assigned to the Levites; probably that referred to by Joshua chap. x. 12:—another, in the tribe of Benjamin, between Bethel to the north, and Jerusalem to the south:—a third, in the tribe of Ephraim, about two miles from Shechem:—and a fourth, in the tribe of Zebulun, whose precise situation is not known.

AJAN, or AAX, in Geography, a country extending along the eastern coast of Africa, from Magadoxo to Cape Guardafui, comprehending about 10 degrees of latitude. This maritime tract contains several petty kingdoms and states; the principal of which are the kingdoms of Adel or Zella, and Magadoxo or Madagaxo, on the coasts, and some others inland, hardly known even by their names. The eastern coast of Ajan is sandy and barren, the habitation merely of wild beasts, and therefore called the desert coast; but farther towards the north the country is fertile, producing all sorts of provision, and furnishing means of commerce, and particularly an excellent breed of horses, which foreign merchants take in exchange for silk, cottons and other cloths. The inhabitants along the coast are generally white with long hair; but towards the south they become more tawny, and even black. The negroes intermarry with the Bedowin Arabs, and carry on a great commerce with them in gold, slaves, horses and ivory, which they commonly bring from Abyssinia, whether they occasionally repair for the sake of plunder. As they are all either zealous Mohammedans or Bedowins, they are enemies to the Abyssinians, who are Christians; and their interruptions into Abyssinia accustom them to war. Those of them, and especially of the Bedowins, who live near the trading coasts, are arrant thieves. Mod. Un. Hist. vol. xii. p. 504. &c.

AJANDUM, a town of Afalic Turkey, in the province of Natalia; eight leagues well-fourth-well of Sinope.

AJAR, in Natural History, the name given by Adamson to the Chama antiquata of the Linnaeus fylrum.

AJARAFE, in Geography, a fertile district of Spain, in the kingdom of Seville; in which there is a little town situated on the Guadarrama, called Ciudad of St. Lucas la Mayor.

AJAS MONT, a mountain of Marmara, in Africa, according to Ptolemy.

AJAS, a small town of Ask, in Natalia, famous for its mineral waters; called also Therma.

AJAS is also a small town of Arabia Felix, situated in a valley, and about two days journey from Aden.
AJASALUCK, a name given by the Turks to the ancient Ephesus. The name denotes the temple of the moon, and is derived from the magnificent structure formerly dedicated to Diana.

The ruins of this famous city serve now merely as a place of accommodation and shelter for the shepherds and their flocks, and is the occasional habitation of birds and beasts of prey. The glorious pomp, says Dr. Chandler, (Travels, p. 131) of its heathen worship is no longer remembered; and Christianity, which was there muffled by apophthegms and covered by general councils, until it increased to fulness of stature, barely lingered on in an existence hardly visible. By this writer it is described as exhibiting a very gloomy and melancholy appearance, though not absolutely without people. The fires which were lighted in the night among the bushes, and round which the villagers collected, afforded a dim prospect of ruin and desolation. A thril owl, called Cuccavia from its note, with a night-hawk, flitted near them; and a jackal cried mournfully, as if forsaken by his companions on the mountain. The biblical critic may possibly consider this description as a lively comment on the language of the prophet. Zeph. ii. 7, &c.

AJATOCHTI, in Zoology, a name given by Hernandez to the Dasypus orcinarius, or eight-handed armadillo.

AJAX OILIADES, in Classical Biography, one of the leaders of the Greeks, in the expedition against Troy, was the son of Oileus, a powerful chief of the Locrians. Homer (Iliad lib. xiv. v. 520) ascribes to him agility, and a promptitude in executing whatever he undertook, and he is said to have excelled in the use of the bow and javelin, and in swiftness of foot. Horace is by some commentators supposed to refer to him, Od. xvi. i. v. 19. Such was his daring resolution, that even the Gods could not awe and subdue him. Homer Odysseus lib. iv. v. 522.

"Impious he roared defiance to the Gods, To his own prowess all the glory gave."

Pope.

The offence which is reported to have incurred the displeasure of the Gods, was his violation of Callandra, the daughter of Prisim, in the sanctuary of Minerva, where she had taken refuge. Ajax however denied the fact, and imputed the charge to the artifice of Agamenon, who wished to keep Callandra for himself. In his return home, he and his whole fleet were wrecked by the vengeance of Minerva. Some say that he escaped; and that in the moment of danger he impiously exclaimed: "In spite of the Gods, I will escape."—Homer ab supra. v. 504.

"The power defrauding who vouchsafed to save."


AJAX Telamonius, was the son of Telamon, prince of Salamis, and one of the principal heroes of the Iliad, whom Homer represents as inferior only to Achilles in strength and valour, and as the chief buckler of the Greeks, after the secession of that warrior. "His character," says a much approved biographer, "seems to be intended as the model of that steady, agreeable courage which is ever at hand, when its exertions are wanted, and requires no aid of circumstances to excite its energy. He is the only hero, who neither asks nor receives the assistance of a deity:"—and his character is exhibited as a striking instance of impiety and irreligion. It is said, that when he was going to the army, his father recommended to him always to join the assistance of God to his own personal courage. Ajax replied, that even cowards themselves were very often victorious by such aid; but for his part he should have no regard to it, and that he was sure of being able to conquer without it. Thus Sophocles, in Ajax, represents the matter. Homer, however, partly vindicates him from the charge of total irreligion: for though he did not pray to Jupiter himself, when he prepared to engage the valiant Hector, he desired others to pray for him, either with a low voice, lest the Trojan should hear, or louder if they pleased; "for," says he, "I fear no peril in the world." Iliad lib. vii. v. 194.

When the arms of Achilles were adjudged by the Greek chiefsmen to his rival Ulysses, Ajax was bereaved of his understanding; and first venting his rage against a flock of sheep, taking them to be Greeks, he then turned his sword against himself. Fable reports, that the flower called Hyacinth sprang from his blood. The Greeks erected a noble monument to him on the promontory of Rhoetum. Paullus says, (lib. i) that one of their tribes bore the name of Ajax, and that the people of Salamis built a temple to him. Herodotus (lib. viii. c. 64. c. 121), informs us, that the whole country of Greece invoked him a little before the battle of Salamis, and dedicated to him, as part of the first fruits due to the Gods, one of the ships which they had taken from the Persians in that battle. Paullus relates, amongst other wonderful tales, that the waves call the arms of Achilles upon the tomb of Ajax, after the shipwreck of Ulysses. The fate of Ajax was the subject of several eminent tragedies. Gen. Dict.

In his last martial exploit, when he was endeavouring to preserve and rescue the dead body of Patroclus, and when he was overwhelmed with a mill or darkens, which intercepted his view of the Grecian host, he made the following address to Jupiter, which has been much admired for its moral sublimity:

"Lord of earth and air, Oh king! oh father! hear my humble prayer: Dispel this cloud, the light of heaven restore: Give me to see, and Ajax asks no more: If Greece must perish, we they will obey, But let us perish in the face of day."


An ingenious writer has justly appreciated the character of this hero. After a concise abstract of his history, and a detail of his principal exploits, he adds, "Such is the Ajax of the Iliad:—a hero (as far as he rude an age admits of heroism) in grain; tried and proved by every difficulty and danger; not the meteor of a day, but shining with equal lustre through the whole period of action; always in his place; referred to on every emergency, and never in vain; not hurried along by idle bravado or enthusiastic ardour, but making utility the guide of his actions; finally, never yielding but when mortal assistance was unavailable, and when a heaven-born champion, with celestial aid, was necessary to turn the tide of fortune. He may then stand in the number of able and useful men, whose value is inferior to their fame,—a chief of which there are members in every profession and rank of life, and to whom assistance, the first-rate characters owe great part of their celebrity and success."

"Such was the Antipater of Philip of Macedon:—Such was the Labienus of Cesar, the Agrippa of Augustus, the Sully of Henry IV., the Cecil of Elizabeth, the Ireton of Cromwell. Such appear to be the generalty of those officers in the British navy, under whom conduct,
condict the empire of the ocean has been maintained for
their country every where, against all foes, by dint of
equal valour and unvarying skill. In science, in the arts,
in the common business of life, such men might be pointed
out. In general, they are those whom the leaders in
important affairs would choose for their seconds, to supply
their places on occasion, not according to their plans, and
take the management of separate and dependent parts.
Their essential qualifications are a perfect linear for their
pots, and a constant readiness to bring all their powers
into full exertion ;—firmness, vigilance, order, and the
habit of fixing the attention upon particular objects." See
Aikin's Letters to his Son. vol. ii.

Ajax, in Antiquity, a furious kind of dance, in use
among the Greeks: intended to represent the madness
of that hero, after his defeat by Ulysses, to whom the
Greeks had given the preference in his contest for Achilles's
arms.

Lucian, in his treatise of dancing, speaks of dancing the
Ajax. There was also an annual feast, called Ajanskia,
Amai, consecrated to that prince, and observed with great
solemnity in the island of Salamis, as well as in Attica ;
where, in memory of the valour of Ajax, a fire was ex-
plored, set out with a complete suit of armour. Potter,
Archaeol.

Ajax, in Entomology, a species of the Papilio
echer, with wings obtusely canted and brown colour,
yellowish bands and tawny anus. It is the papilio mar-
cellus of Cramer, and found in North America.

Ajax, in Geography, is a variety of the Murex Lampar
of Greece's Linnanum Sytem; called also Rubeta.

AJAZZO, or Ajaccio, a sea-port town in the island of
Corsica, on a gulf of the same name, in the province of Caramania,
an ancient Cilicia, at the north-east extremity of the Me-
diterranean sea, 35 miles north of Antioch, and 50 miles
west of Aleppo; where the city of Issus antiently flood. It
is situated near the gulf of Scanderoon. Here Alexander
the Great defeated Darius a second time, and took his
family prisoners. In the time of the crusades, this be-
longed successively to Chirilians, Saracens, and Turks,
who now possess it. E. long. 35° 10'. N. lat. 37°.

AJAZZO or Ajaccio, a sea-port town, in a bay of
the same name, in the south-west part of the island of
Corsica, with a bishop's see under the archiepiscopal of
Pisa. It is situated in a fertile territory, abounding with
excellent wines. It is guarded by a small citadel; the
streets are straight and large; the houses well built; the
adjacent walks agreeable; and the number of inhabitants
about 4000, many of whom are Greeks. Its commerce
is supplied by a fishery of black, red and white coral, and
by its timber. The bay, though incommodecd by rocks,
affords secure anchorage for ships of considerable burden.
The ancient town was situated about a league from the
present, which was built in 1435; and many ruins of it
are still remaining. A colony of Greeks was established
in the vicinity of Ajazzo in the year 1677; but the pro-
tection of the Genoese could not prevent its being dis-
persed and partly destroyed by the Corsicans. E. long. 8°
50'. N. lat. 41° 50'.

ALBAN-KESRA, an old castle of ancient Babylon,
situate on the banks of the Tigris, in the government of
Bagdad, and supposed to have been the residence of
Cofroc, and other Perisian kings.

AIBLING, a town of Germany in Upper Bavaria,
both to the river Manguald, and not far from its junction with
the Inn. Long. 55°. lat. 34°.

AICHA, a small town of Upper Bavaria, situated on
the Paar; four leagues east-north-east of Augsburg. It
was taken by the Swedes in 1653, and in 1654 laid in
siles by them. E. long. 30° 40'. N. lat. 48° 30'.

AICHEBERG, a town of Germany in Stiria; four
miles south-west of Tividberg. There is also a town of
the same name in the archduchy of Austria; eight
miles north-west of Effersing.

AICKGIRGEN, a town of Germany in the arch-
duchy of Austria; seven miles west-north-west of Schwan-
laut.

AICHELBERG, a town of Germany in Carinthia;
four leagues west-south-west of Villach.

AICHMALOTARCHA. See Ecmhalotarcha.

AICHSTADT, a city of Germany, the capital of a
foreign bishopric of the same name in Franconia, situated
in a fertile valley on the river Altmuhl, and founded in the
year 748, by St. Boniface archbishop of Mentz. The
dioecese is 18 leagues long and 7 broad; and its inhab-
itants generally profess the catholic religion. The place
of the bishop in the general diet of the empire is between
the bishopps of Worms and Spire, and he is the suffragan
of the archbishopric of Mayence. The bishop has for his
ward three companies of infantry, a company of cuirassiers,
and a company of dragoons. At the cathedral of this
city, the eucharist is exhibited in a vessel of gold, denomi-
nated the fan, of the weight of 40 marcs, enriched with
an incredible quantity of diamonds, pearls, and rubies.
They reckon 350 diamonds, 1400 pearls, and 250 rubies,
with many other precious stones. It was presented to the
cathedral by the bishop of the dioecese in 1611. But it is
doubtful, whether some of the precious stones have not
been exchanged, in some period of public ditresses, or
by some artifices, for others of less value, that equally answer
the purpose.

Aichacht is four leagues north of Neuburg, five north-
well of Ingolstadt, and 15 south of Nuremberg. E. long.
11°. N. lat. 49°.

AICHSTADT ober, is a town on the Altmuhl, one league
well of the former.

AID, or AYEDE, Auxilium, literally denotes the help,
faecour, or affittance, which any person lends another,
when too weak to do, or avoid, something.
The word is French; formed, according to M. Menage,
from the Italian attitute, and that from the Latin adjutus,
to help affit.

Aid, or Ayde, in Law, is when a petition is made in
court, for the calling in of help from another person in-
terested in the matter in question; who, if it is probable,
may not only strengthen the party's cause who thus prays for
aid, but also prevent a prejudice arising to his right.
Thus in real actions, the tenant may pray for aid,
and call for assistance of another to help him to plead, becaus
of the feeble ness of his own estate. A tenant for life may
also pray in aid of him that hath the inheritance in remain-
der or reversion; and an incumbent may pray in aid of
the patron or ordinary; that is, that they shall be joined in the
action, and help to defend the title,—This is called aid prior;
but this course of proceeding is now much diffused.

A city, or corporation, holding a fee-farm of the king,
may pray in aid of him, if any thing be demanded of them
relating thereto.
The aid prior is sometimes also used, in the king's behalf,
to prevent any proceedings against him till his counsell be
called, and heard what they have to say for avoiding the
king's prejudice, or lists. Jenk. Cent. 64. Termes de
Ley, S. Stat. 4 Edw. I. and 14 Edw. III.

Aid de camp, an officer in the army, whose business is to attend
AID

attend the general officers, and receive and carry their orders, as occasion requires.

When the king is in the field, he usually appoints young volunteers of quality to carry his orders, who are called the king's aids de camp.

An major, or adjutant, is an officer whose business is to take the major of part of his duty; and to perform it all in his absence.

Some majors have several aid majors.—Each troop of guards has but one major, who has two aid majors under him, or more, according as the buiffiness requires.

Every regiment of foot has as many aid majors as it contains battalions.—When the battalion is drawn up, the aid major's post is on the left, beyond all the captains, and behind the lieutenant-colonel.

Aid, Autlilum, in our Ancient Caftians, denotes a subsidy or sum of money due to the lord, from his tenants, on certain occasions.

It differed from a tax, which is imposed at any time when wanted; whereas the aid could only be levied where it was customary, and where the particular occasion fell out.

Such was the aid de reliefs due from the tenants in fee, upon the death of the lord mefn, to his heirs, towards the charge of a relief of the fee, of the superior lord. This was abolished by king John's magna charta.

Such also was the aid cheval, or capital aid, due by vassals, to the chief lord, or the king, of whom they held in capite. Of this there are three kinds.

The first, of chivalry; or, as they call it, par faire fea chevalier, toward making his eldest son a knight, when arrived at the age of fifteen years; the second of marriage, or par fille marier, towards marrying his eldest daughter.

Both these, with all charges incident thereto, are taken away by law. See Tenure, Service, &c.—Some will have them to have been first established in England by William the Conqueror, and afterwards transferred to Normandy; but the more common opinion is, that the Conqueror brought them with him. The third was of a ransom, due when the lord was taken prisoner by the enemy.

It appears from Bracket (lb. ii. c. 16. § 3) that, in the time of Henry III. these aids, which were allowed by the charter of king John, were supposed to be paid by the vassals, rather than tokens of good will and affection to their lords, than as proper concomitants of the service they owed. Glanville, on the contrary, considered them as due by their tenures. But, both by that author, and in the charter, it is said, that they ought to be taken in reasonable proportions. Glanville questions, whether the feudal lord could demand an aid of his tenants for the support of his war? And replies by saying, that he could not disilain for such aid; but they might give it, as a bencovency, and out of affection to their lord; whereas he considers the aid of relief, as a due, for which the lord, in virtue of his fee, had a legal right to disilain. Lyttelton's Hist. Henry II. vol. iii. p. 108. 8vo.

In some provinces there was a fourth kind of aid; due whenever the lord should undertake an expedition to the Holy Land.

We also read of aids paid the lord, when he was disposed to purchase any new land, or tenement. These were only granted once in his life. Also aids for the repairing and fortifying of castles, fents, &c. and also aids to pay the lord's debts. To prevent this abuse, king John's magna charta ordained, that no aids be taken by the king without consent of parliament, nor in any wise by inferior lords, except only the three ancient ones above-mentioned, viz., for making the lord's eldest son a knight, for marrying his eldest daughter, and for ransomin the lord's person, if taken prisoner. But this provision was omitted in Henry III.'s charter; and the same oppressions were continued till the 23 Edw. I. when the statute called confirmation chartarum was enacted; which in this respect revived king John's charter, by ordaining that none but the ancient aids should be taken. But though the species of aids was thus restrained, yet the quantity of each aid remained arbitrary and uncertain. King John's charter, indeed, ordered that all aids taken by inferior lords should be reasonable; and that the aids taken by the king of his tenants in capite should be settled by parliament. But they were never completely ascertained and adjusted till the statute WeCham. t. 3 Edw. I. c. 36, which fixed the aids of inferior lords at twenty shillings, or the supposed twentieth part of the annual value of every knight's fee, for making the eldest for a knight, or marrying the eldest daughter; and the same was done with regard to the king's tenants in capite, by the 25 Edw. III. c. 1. The other aid, for ransom of the lord's person, being not in its nature capable of any certainty, was therefore never ascertained. Blacklt. Com. lib. ii. c. 5. vol. ii. p. 64. 8vo.

By the lat. 34 Edw. I., it is ordained, that the king shall levy no aid or tax without his parliament.

Aids seem to have been first established with a view to the clients and freedmen of ancient Rome, who made presents to their patron towards his daughter's fortune, as also on his birth-day, and on other solemn occasions. Accordingly, Bouteiller relates, that in his time these aids depended on the courtesy and good will of the vassals; for which reason they were called, droits de complaisance.

The bishops also received aids from their ecclesiastics, called fœdus, and pencefsilis. They were to be paid at the time of their consecration; or when they had a king to entertain; or when called by the pope to his court, or to a council; as also when they went to receive the pallium.

Add, that the archdeacon also exacted aids from the clergy of their jurisdiction. See Procuration.

A kind of feudal aids are still levied in Germany, &c. under the title of collecta.

Aids are also used in matters of polity, for any extraordinary taxes, or impositions, occasionally levied by the king and parliament, upon the subjects, to support the charges of the government, when the ordinary revenue is deficient.

Aid, royal, is a name frequently given to the land-tax.

Aid, in Theology; the aids or affinowes of divine favour, which are offered to man, have been the subject of much dispute between the Jansenists and Jefuits; for the composing whereof, a celebrated congregation was erected at Rome under the title of congregation of aids, congregatio de auxiliis.

Some divines, after St. Augufline, distinguish two kinds of aids, viz., fine quo, and quo.

Auidum fine quo, that which the mind is at liberty either to use or refuse; such is supposed to have been the aid ministered to man in the state of innocency, while his mind and will were found and upright.

Auidum quo amounts to what is otherwise called efficacious grace, which furnishes and subsides the will; such, according to the Calvinists and Jansenists, is supposed to be the aid ministered by grace, in the present fallen state of human nature.

Aids, in the Monage, are helps or affinowes by which the horfman contributes towards the motion or action required of the horfe, by a judicious use of his body, or the appointments of the horfe.
Aids are of the greatest service in the manage, and form the only true language between the master and the horse; by these he is encouraged to act with propriety and energy, and the necessity of correction is prevented; consequently it must be evident that a great mixture of gentleness and spirit are requisite in their exhibition.

The principal aid is derived from the bridle; indeed the different management of this appointment forms several distinct aids, each of which is so useful and necessary that it might constitute a distinct lesson. The cavesson forms at once an aid and a correction of the most powerful kind, and in no way is the obedience of a horse so well secured as by this means. The spur is of this number likewise; when made use of as an aid, it is by gently closing the heels and applying the points only to the skin; but the calves of the legs are perhaps the best aids of this kind.

The whip is used as an aid to keep the attention of the horse alive, by elevating the hand and striking the aid, or gently patting the animal in different parts; judiciously managed to a well drilled horse, it forms a very lively and animating aid. The voice is likewise made use of as an aid. The motions of the thighs, knees, and the calves of the legs, form separate aids; that of the calves is the most important and last, without a proper knowledge of which, both horse and rider must be defective. The calves are used together, or separate; when one calf alone is employed, it is usually accompanied with the hand, to alter the position of the body, or change the leg, by which any action is led. The elevation of the body in the stirrups forms another aid.

The aids made use of to make a horse go in airs, are either different in themselves, or differently applied, to those made use of on the ground. The general application of these aids on the road is a branch of riding in which English horsemen are by foreign masters deemed defective. The inner heel, inner leg, and inner rein, are called inner aids. The outer heel, outer leg, &c. are outer aids. See Berenger's Art of Horsemanship, vol. ii. p. 52, &c.

Aids, in the French Law, denote a duty paid on all goods sold and transported either out of, or into the kingdom. In this sense aids answer to what the Latins call vexilla, a vexanda mercibus, and are paid by all kinds of persons, privileged, or non-privileged; by which they differ from taille, taxes, which are only paid by the peasants, being a sort of capitation, answering to what the Latins call tributum.

Aids, court of, in France, a court erected for the cognizance of matters relating to the taxes. Appeals come to this from the court of elections, where matters relating to the taille are first heard. The court of aids, of a province, is sometimes separated from the parliament of the province, and fixed in another city, as at Montpellier, Montauban, &c. There are twelve courts of aids, of which the principal is that at Paris.

AIDAN, in Biography, a British bishop of the 7th century, was employed in instructing the inhabitants of the Northern parts of England in the Christian religion. He was a monk in the monastery of Hi, or Jona, one of the Hebrides, which was subject to Britain, but given to the Picts, who inhabited those parts of Britain, in recompense of the zeal with which they had preached to them the faith of Christ. The kingdom of Northumberland, though it had received the Christian doctrine from Paulinus, archbishop of York, relapsed into idolatry. When Oswald, in 634, became king of Northumberland, he sent to Scotland for a missionary, qualified for instructing his subjects in the doctrines and duties of Christianity. It happened that a very improper person, an ecclesiastic named Corman, of severe disposition and rugged manners, was sent for this purpose; but it soon appeared that Aidan, who was mild and prudent, was much fitter for the office; accordingly he was consecrated a bishop and sent to the court of Oswald. At his consecration the episcopal fee was removed from York to Lindisfarne, a peninsula adjoining the Northumbrian coast by a narrow isthmus, called also Holy Island, because it was chiefly inhabited by monks. Here Aidan exercised an extensive jurisdiction, and preached the gospel with great success; deriving encouragement and assistance in his labour, from the confederating services of the king himself. After the death of Oswald he continued to reside in the church of Northumberland, and died in the year 651. We have an extraordinary instance of this bishop's liberality to the poor. Having received a present from king Oswin of a fine horse and rich houings, he met with a beggar, and dismounting, gave him the horse thus caparisoned. When the bishop expressed some displeasure at this singular act of humanity, and the flight put upon his favour, Aidan quietly but forcibly asked, "which do you value most, the son of a mare or a son of God?" the king was so affected that he fell upon his knees and intreated the bishop's forgiveness. Bede describes the character of Aidan in terms of high commendation, and ascribes to him miracles, which the credulity of the times in which he lived would be disposed to admit. To the report of one of his miracles we are inclined to give our assent. When the bishop gave the price, who was to conduct the betrothed wife of Oswin by sea to Northumberland, a phial of holy oil, instructing him, in case of a storm, to pour it into the sea, and affuring him that it would soon become calm, it is possible he might not be unacquainted with the efficacy of oil thus applied, which has been long known, and is now sufficiently established by observation and experiment. Bish. Brit.

AIDERBEITZAN, AEBRIBAN, or, as the Persians call it, AZERBAYAN, in Geography, a province of Persia, borders to the coast on the province of Ghilan, the Caspian Sea and Tabrissian, to the east on Trac, Ajeini, to the west and north-west upon Cerdelian and Upper Armenia, and to the north on Schirvan and Georgia. The etymology of the name given by the Persians to this province imports a country of fire, so called on account of the temple erected in it for keeping their sacred fire. The soil is fruitful, and the climate healthy, though cold. The most considerable cities in it are Tauris, Ardevil and Sultania. The province extends from about 48° to 54° E. long. and from 36° to 39° N. lat.

AIDHAB, or GAIDHAB, or ARDHA, a town of Africa, and sea-port of Nubia, on the coast of the Red Sea. E. long. 33° 59'. N. lat. 22° 12'.

AIDONA, a town of Sicily, in the valley of Noto; four miles north-east of Piazza.

AIELLO, a small town and dukedom of Naples, in the Abruzzo Ultra, belonging by marriage to the hereditary prince of Modena.

Aiello is also a town of Naples, in the district of Calabria Citra, with the title of a principality; nine miles south-west of Cosenza.

AIREA, in Ithymboly, the name of a fish of the pallasinus marinus kind, only differing from all the others in that the form of its body is regularly round, or oval, and its head placed far within the verge of its thin part. It is common in the Western Ocean; but it is not much esteemed for the table, being more coarse and flabby in its flesh than the other kinds. Marcgrave.

AIGEN, in Geography, a town of Germany in the arch-
AIG

duchy of Austria, on the confines of Bohemia; 35 miles
well of Vienna. E. long. 13° 52’. N. lat. 48° 55’.

AIGHEENDALE, a liquid measure in Lancashire, con-
taining seven quarts.

AIGITALUS, arnoseus, in Ornithology, a name by
which Aristeus, and some of the old authors call the PARUS,
OT TITMOUSE.

AIGLANDE, in Geography, a town of France, in the
department of the channel, and principal place of a canton,
in the district of St. Lo; four leagues north-east of Con-
tances.

AIGLE (L’), AQUILA, a small well-built town of
France, and capital of a district situated on the Rille, in
the department of Orne; 14 leagues north-east of Alençon.
Its principal commerce is corn, hard-wares and pins.
It contains three parish churches, two convents, and a hospital;
Is surrounded with walls, and has six gates. E. long. 1° 31’.
N. lat. 48° 40’.

AIGLE, a town of Switzerland, in a part of the Lower
Valais, which belongs to the seignory of Berne, and forms
part of a canton. It is situated on a small river, which runs
into the Rhone, about a league below it; 12 leagues call-
north-east of Geneva. The country about it has rich pas-
tures, and good wines and fruit; but it often suffers from
the inundations occasioned by the high mountains that bound
it towards the north. The soil that is collected from the
fallen waters in its vicinity is refined at Aigue. E. long. 6°
51’. N. lat. 26° 22’.

AIGLE, a river of France, which waters part of the
government of Orleans, rises near Mée in Beauce, and dis-
charges itself into the Loir, between Chateaudun and
Clovy.

AIGLETTES, in Heraldry. See Eaglet.

AIGN, in Geography, a town of Germany, in the circle
of Bavaria, and archbishopric of Salzburg, near which is
a medicinal spring; two miles south-east of Salzburg.

AIGNAN, a town of France, in the department of
Gers and district of Nogaro; seven leagues west of Auch.

AIGNEY-LE-DUC, a town of France, in the depart-
ment of the Cote d’Or, a district of Châtillon; 4 1/2 leagues
south-west of Chatillon. It is situated on a small
mountain, at the foot of which runs a stream of the fame
name. Its chief subsistence is derived from bleaching
and the commerce of linen cloth.

AIGRE, a town of France, in the department of the
Charente and district of Ruffec; 5 1/2 leagues north of
Angoulême.

AIGREFEUILLE, a town of France, in the depart-
ment of the Lower Loire and district of Chiffon; 3 1/2 leagues
south of Nantes.

AIGREMONT, a small town of Burgundy in France,
in the generality of Dijon.

AIGRETTE, in Ornithology, a name given by Buffon
to different species of ADEA, or the EGRETS of other
authors.

AIGRETTE, in Zoology, a name given by Buffon to the
SIMIA AYGULA.

AIGUE MARINE, in Natural History. See Aqua
MARINA.

AIGUEBELLE, in Geography, a small town of Savoy,
on the river Arc, surrounded by high mountains; five leagues
call from Chambery. The manufacture of this place is
film.

AIGUEBELLE is also a small town of France, in the de-
partment of the Drome; two leagues south-east of Mont-
telimart.

AIGUE-VERSE, a small town of France, in the de-
partment of Pav-de-Dome, and late province of Auvergne;
18 miles north of Clermont and 261 south of Paris. The
cold water of a fountain near it has the appearance of boiling,
and is said to be fatal to the animals that drink it. E. long.
5° 20’. N. lat. 45° 50’.

AIGUES, a river of France, which runs into the Rhone,
ear Orange.

AIGUESCAUCDES, is situated in the valley of Ollau,
in the principality of Bearn, in France; and is famous for a
spring of water, loopy and sulphurous, and smelling like a
rotten egg, which is deemed salutary in many inward
and outward disorders.

AIGUES-MORTES, a town of France, in the de-
partment of the Gard and district of Nîmes; 44 leagues
south of Montpellier. The soil in the neighbourhood is
fandy, and the air unwholesome on account of the ignan-
ous waters that surround it. It formerly flood on the sea and
had a harbour; but it is now above two leagues up the country,
and the harbour is filled up. This place is famous for an in-
terview which took place in 1538, between Charles V. and
Francis I. after 20 years of open hostility or secret enmity;
by which occasion they vied with each other in expres-
ions of respect and friendship. E. long. 5° 28’. N. lat. 43° 34’.

AIGUES-VIVES, a town of France, in the depart-
ment of the Gard and district of Sommieres, five leagues north-
east of Montpellier.

AIGUILLON, a town of France, in the department
of the Lot and Garonne, and district of Tonnens; six
leagues north-west of Agen. This town carries on a con-
derable trade in wines, brandy and hemp. E. long. 0° 22’.
N. lat. 44° 25’.

AIGUINES, a town of France, in the department
of the Var and district of Barjols; 5 1/2 leagues north-east of
Barjols.

AIGUISCE, AIGUINES, or EGURCE, in Heraldry,
a term applied to a cross, when its four ends are sharpened,
but so as to terminate in obtuse angles.

The crois aigusce differs from the crois fiiishe, in that
the latter goes tapering by degrees to a sharp point; whereas
only the ends of the former are tapered.

Croisces were so formed by the Christians in their pilgrim-
ages for the convenience of fixing them in the ground at
their devotion. In the English blazon this kind of crois is
called a crois arlde.

AIGURANDE, or AGURANDE, in Geography, a town
of France, in the department of the Indre, late province of
Berry, and district of La Chatre; 8 1/2 leagues south of Châ-
teauroux. The country round it furnishes fat cattle. E.
long. 1° 44’. N. lat. 46° 27’.

AIL, a people of India, placed by Ptolemy on this side
the Ganges.

AIKES, a town of Transylvania, six leagues north-east
of Clastenburg.

AIKMAN, WILLIAM, in Biography, a painter of con-
siderable eminence, the son of William Aikman, Esq.
of Cairney in Scotland, was born October 24th, 1682, and
intended by his father, who was an advocate at the Scots
bar, for his own profession; but the son declined the study
of the law, and devoted himself to the fine arts, and par-
ticularly to that of painting. Having prosecuted his studies
for some time in Britain, he removed to Italy in 1707, and
refined for three years at Rome. He then travelled to Con-
stantinople and Smyrna, and in 1712 returned from Rome
to his own country; and in 1723 he settled in London, and
followed the profession of painting under the patronage
of the Duke of Argyle, the Earl of Burlington, Sir Godfrey
Kneller, and some other encouragers of the arts of that
period.
AILANTHUS, formed of the Ambosia name Ay-
lanse, which denotes the tree of heaven, so called on account
of its lofty growth, in Botany, a genus of plants, the clas
and order of which are not ascertained. Prof. Martyn
refers it to the papyramia monoeauc, Scherer to the dicap-
dendria, and Giralt to the decandria trigyna. Its char-
acters are, that it has male, female and hermaphrodite
flowers. The calyx of the male is one-located, five-parted,
very small stamens; the corolla has five petals, lanceolate,
acute, convolute at the base and spreading; the lamina
have ten filaments, compressed, of the length of the corolla;
the anthers are oblong and versatile. The calyx of the female
is like that of the male, permanent; the corolla the same;
the pappus has from three to five germs, curved inwards;
the styles are lateral and the stigmata capitate; the perica-
pus has as many capsules as there are germs, compressed,
membranaceous, ovate-shaped, acute, on one of the edges
emarginate; the seeds are solitary, lens-shaped, bony, close
the emarginate. The calyx of the hermaphrodite is the same
with that of the male and female; the corolla the same
as in the male; the lamina have two or three filaments,
as in the male; the pappus, pericarpium and seed as in the
female. There is one species, viz. A. glandulosa, or tall
ailanthus, which is a tree with a straight trunk, 40 or 50 feet
high, a native of China, and first raised in England about
the year 1751. It grows fast in our climate, and as it rifes
to a considerable height, it is proper for ornamental plan-
tations. A retinuous juice, which soon hardens, flows from
the wounded bark. The wood is hard, heavy, gloire, like
fattin, and susceptible of a very fine polish. This is the
Rhoo Sinens, &c. of Ellis. See Phil. Transl. vol. xxxix.
p. 870, and vol. i. p. 446. Martyn's Miller.

AIL, or AIL, formed of Tr. aul, event, grandfather,
in Latin, a word which lies where the grand-father, or great-
great-grandfather, called fide, was feized of lands or tenements
in fee-simple, on the day he died; and a stranger abates or
enters the same day, and dispossesseth the heir or grand-child.
See Abatement.

AILERONS, a diminutive of the French aile, wing, in
Natural History; petty wings, a French term expressing two
small shelly subfaces, resembling parts of wings, or young
and jut growing wings, and found in the two-winged flies,
situated at the root of the larger wings. Reaumur.

AILLES vivres, in Natural History, a French term used
to express the wings of a series of insects, which form a
middle nature, between the fly and the butterfly kind, and
are therefore called papillon mouche, by these writers. The
wings of these insects are in part covered with dust, or scales,
and in part free from it, and transparent. In their free
parts they look glossy; whence their name, signifying glossy
wings.

AILLESBURY, in Geography. See AYLESBURY.

AILJANT-SUR-THOLON, a town of France, in
the department of the Yonne, and district of Ivgny: a
leagues north-west of Auxerre.

AILLAS, a village of France, in the department of the
Gironde, and district of Bazas; two leagues north-call of
Bazas.

AILLY, a village of France, in the department of the
Somme, and district of Abbeville; five leagues west-north-
west of Amiens.

This is also the name of a town of France, in the same
department, and district of Montdidier; three leagues south-
south-east of Amiens.

AILLY, Peter D', in Biography, bishop of Cambray,
and a bigoted ecclesiastic, was born of an obscure family at
Compiègne in 1530. He finished his studies at Paris, and
gave
gave proofs of a superior understanding even at college by his treatises "On Logic," "On the Nature of the Soul," and "On Meteorology." In 1384 he was appointed grand-master of the college of Navarre, where he had been educated. His zeal for the Catholic faith contributed to his advancement as much as his learning. Having pleaded in 1387, in favour of the miraculous conception, before the pope, he was appointed confessor to Charles VI. and chancellor of the University, and in 1391 bishop of Cambrai. He distinguished himself on various occasions as an advocate for the doctrines and ceremonies of the church; and at the general council of Constance, which lasted from the year 1414 to the year 1418, he was principal agent in the proceedings, which convicted Wickliff and Huts of hereby; and at last brought the latter to the stake, upon whom he pronounced the sentence of death. Notwithstanding his zeal against hereby, he is said to have been a friend to reformation, and that he wrote a book "On the Reformation of the Church," which, however, is not found among his works. His ideas of reformation must have been very partial and restricted, as he took pains to obtain a general council for terminating feuds, and was attached to the absurdities of judicial astrology. On this subject he wrote a treatise, in which he maintained, that Noah's flood, the birth of Christ, and other such miraculous events, might have been predicted by astrology. He died in 1425, as some say, and according to others in 1419 or 1420, with the character of "the Eagle of France, and the indefatigable Mallet of Heretics." The epitaph on his tomb is as follows:

"Mors rapuit Petrum; petram fubit purus corpus;
Scil petram Christum spiritus ipse petit."

i. e. "Death seizes Peter, and under this stone,
His body decays; his spirit is flown
To Jesus his rock."

Of his numerous works several treatises and sermons were printed at Strasburg in 1420; his "Quœsitiones in Spiritum Mundi" was printed at Paris in 1498, and at Venice in 1508; his "Treatise of Meteorology" appeared at Paris in 1504, and his "Life of Celestin V." in 1539. Cave Hist. Lit. vol. ii. Append. p. 84. Gen. Diœt.


AILSA, in Geography, an infallible rock near the isle of Bute, in Scotland, about two miles in circumference and 900 feet high, accessible on the north-east side, and the habitation of rabbits and goats, and tea-fowl, particularly the Solan goose, some of which are taken for food, and others for their feathers. The banks about it are well-flowered with wild fox and other fish.

AIMAKAN, a river of Siberia, which runs into the sea of Ochotoko. E. long. 159° 14'. N. lat. 54° 44'.

AIMARGUES, or AYMARGUES, a town of France, with the title of a barony, in the department of the Gard, and diocese of Nîmes, situated in a marshy country on the river Vidre; 4 leagues south of Arles, and 31 south Nîmes. E. long. 3° 5'. N. lat. 44° 5'.

AIMÉ, AIMNO, or AIMNO, a small town of Savoy, on the river Ile; 6 leagues east-north-east of Montblanc.

AIMÉE, one of the sub-districts of Hindoulon, according to the Annecy-Menthon, or distribution of the emperor Alba, is entirely in the faubon of Savoy, and contains seven communes or counties, and 197 parrish officers or hundreds. Its revenue is 12,841,907 ducats, 320 ducats being equal to a pound sterling. It has 86,500 cavalry, and 437,000 infantry.

AIMON, in Biography, a Benedictine Monk, wrote about the year 810, and is chiefly known as the author of a "History of France."

AIMONTE, in Geography, lies on the east side of the river Garda near its mouth, which is the boundary from Portugal on the west, and one of the best havens on the whole coast. W. long. 7° 15'. N. lat. 37° 5'.

AIMOUTIER, a town of France, in the department of Upper Vienne, and district of St. Leonard; seven leagues south-west of Limoges.

AIN, signifying fountain, is an initial word prefixed to several Hebrew and Arabic appellations of places.

AIN, a river of France, whose one of the departments derives its name. It rises in Mount Jura, near Nevers, and after traversing a course from North to South of about 35 leagues, discharges itself into the Rhône, about five leagues above Lyons. The department of the Ain is one of the four departments, which are composed of the ci-devant Brede, Bugey and Valromey, and the principality of Donze, divided into which the former province of Bourgogne is divided. It is bounded on the north by the department of Jura, on the east, by those of Lyon and Mont Blanc; on the south, by the river Rhône, and on the west, by the department of the Rhône. Its surface is about 1,677,452 square acres, or 549,905 hectares; its population amounts to about 288,700 persons; and it is divided into four communal districts. Its chief town is Bourg.

Aïn, a town of Aïn, in the Arabian Irak; 30 leagues south-west of Balkora.

AINAD, a town of Arabia, in the province of Hadramaut.

AINAY-LE-CHATEAU, a town of France, in the department of Allier and district of Creil; eight leagues north-west of Monluets.

AINCREVILLE, a town of France, in the department of the Monce, and district of Stenay; one league south-east of Don.

AINEB-GUL, a town of Asiatic Turkey, in Totola; 40 miles north-west of Degmaz.

AIN-EL-CALU, a town of Africa, in the province of Trinacria, and kingdom of Fez.

AIN GEBEL, a town of Aïn, in the province of Dierbeik; 16 leagues south-west of Moful.

AINLING, a market town of Germany, in Upper Bavaria; ten miles north-west of Augsburg.

AINOD, a town of Germany, in the duchy of Stiria; eight miles north of Cisly.

AINS, a small town of Spain, in the kingdom of Aragon, on the river Ara; six leagues north of Balbazo.

AINSWORD, HENRY, in Biography, an eminent Nonconformist divine and Biblical commentator, flourished at the close of the 16th and commencement of the 17th century. About the year 1598, he united with the Brownists, and after lingering for some years with the dangers and troubles to which persons of this description were exposed by the indifferency zeal of the bishops and the intolerance
To Ainsworth's judgment, industry, and perseverance in compiling a dictionary for the use of schools, great commendation is due. This useful work was undertaken by him in 1714; and after many interruptions and delays was completed in 1736, and dedicated to Dr. Mead. It has been since improved by Patrick, Ward, Young, and other learned men; and in 1773 there appeared a new edition, further enlarged and improved by Morell. We have an useful abridgment of this dictionary by Mr. Thomas, in two large 8vo. volumes. Patrick's Pref. to the second edition of Ainsworth's Thesaurus, Biog. Brit.

AINZAMIL, in Geography, a town of Africa, in the province of Tremeen and kingdom of Fez.

AIOMAMA, or AIOMANO, a town of European Turkey, on a gulf of the same name, in the province of Romena; 14 leagues south-east of Saloniki. Cape Palibios is the south-east limit of the gulf, and Cape Drapano its north-east extremity. The south point is about E. long. 24° 40', and N. lat. 39° 50'.

AJOVEA, in Botany, a genus of the hesperia monogynia class and order; the characters of which are, that the calyx is single-leaved and tridentated, the corolla has three petals, the filaments are terminated with two glands, the anthers are doubly excavated, the stigma is divided in five segments, and the fruit is a roundish, single-seeded, monoporous berry. There is one species, viz. A. guianensis; which grows in the forests of Guiana.

AIOTOCHTI, in Zoology; the Mexican name of the Aramidello.

AIPIMIXIRA, in Ichthyology, the name of an American fish, more usually known by the name of Tudiano. It is a small fish, of the shape of the perch, with a purple back, and yellow sides and belly. Maregrave.

AIR, in Physics, a thin, fluid, elastic, transparent, ponderous, compressible, and dilatable body; surrounding the terraqueous globe to a considerable height.

Air was considered by some of the ancients as an element; but then, by element, they understood a different thing from what we do. See Elements.

It is certain, that air, taken in the popular sense, is far from the simplicity of an elementary substance; though some of its properties and uses in a state of combination with various subslances, from which it has been extracted by modern analysis, may entitle it to this appellation. Hence air may be distinguished into proper or elementary, and vulgar or heterogeneous.

Air, elementary, or Air properly so called, is a subtile, homogeneous, elastic fluid: the basis, or fundamental ingredient of the atmospheric air, and that which gives it the denomination.

In this sense, it likewise enters into the composition of moist, or perhaps all bodies, existing in them under a solid form, deprived of its elasticity and most of its distinguishing properties, and serving as their cement, and the universal bond of nature; but capable, by certain processes, of being disengaged from them, recovering its elasticity, and reuniting the air of our atmosphere. See Hales's Vegetable Statics, chap. vi.

The peculiar nature of this aerial matter we know but little of; what authors have advanced concerning it being chiefly conjectural. We have no way of altogether separating it from the other matters with which it in purest state it is more or less combined, and consequently no way of ascertaining, with satisfactory evidence, its peculiar properties, abstracted from those of other bodies.

Dr. Hook, and some others, maintain, that it is the
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fume, with their ether, or that fine, fluid, active matter, diffused through the whole expanse of the celestial regions; which coincides with Sir I. Newton's \textit{fuble medium}, or spirit. In this view it is supposed to be a \textit{body sui generis}, ingenereable, incorruptible, immutable, present in all places, and in all bodies.

Others, considering only its property of elasticity, which they account its essential and continual character, suppose it to be mechanically producible; and to be no other than the matter of other bodies, so modified and altered, as to become permanently elastic. Sir Isaac Newton observes, that the particles of dense, compact, and fixed substances, cohering by a strong attractive force, are not separable without a vehement heat, or perhaps not without fermentation; and such bodies being at length rarified by such heat or fermentation, become true permanent air; and distinguishable from vapour, which is only apparent, or transient air, as is evident from the experiment with the zephyr, \textit{Optics}, Qu. 31, p. 371, 372. See \textit{Air, atmospheric}.

\textbf{Air, vulgar or heterogeneous,} is a coalition of corpuses of various kinds, constituting together one fluid mass, in which we live and move, and which we are continually receiving and expelling by inspiration. The whole assemblage of this makes what we call the atmosphere; where this air, or atmosphere, terminates, there ether is supposed to commence; which is distinguished from air by its not making any sensible refraction of the rays of light, as air does.

Air, in this popular and extensive meaning of the term, is acknowledged by Mr. Boyle to be the most heterogeneous body in the universe. Boerhaave flues it to be an universal chaos, or colulvies, of all kinds of created bodies. Besides the matter of light or fire, which continually flows into it from the heavenly bodies, and probably the magnetic effluvia of the earth; whatever fire can volatilize is found in the air.

Hence, for instance, 1. The whole animal kingdom must necessarily be found in it; for all of that tribe, as falts, sulphurs, flues, metals, \\&c. are convertible into fumes, and thus capable of being rendered part of the air. Gold itself, the most fixed of all natural bodies, is found to adhere close to the sulphur in mines; and thus to be raised along with it. Mr. Boyle observes, that beside the saline effluvia of the common fort, such as the nitrous, vitriolic, marine, \\&c. there may be many compounded kinds of falts in the air, which we have not on earth, arising from different saline spirits, fortuitously meeting and mixing together. Thus, the glasses windows of ancient buildings are sometimes observed to be corroded, as if they had been worm-eaten; though none of the simple falts above-mentioned have the faculty of corroding glasses.

Sulphurs too must make a considerable ingredient of the air, on account of those many volcanos, grottos, caverns, and other spirescles chiefly affording that mineral, dispersed through the globe.

2. All the parts of the animal kingdom must also be in the air; for besides the copious effluvia continually emitted from their bodies, by the vital heat, in the ordinary procees of perspiration, by means of which an animal, in the course of its duration, impregnates the air with many times the quantity of its own body; we find that any animal when dead, being exposed to the air, is in a certain time wholly incorporated with it.

3. As to vegetables, none of that class can be supposed wanting; since we know that all vegetables, by putrefaction, become volatile.

The associations, separations, motions, dilutions, and other operations of one sort of matter upon another, may likewise be considered as sources of numerous other neutral, or anonymous bodies, known to us.

\textbf{Water.} It is also diffused through the air in great abundance. Many familiar instances might be alluded to this purpose. A bottle of wine, when taken out of the cellar in the driest and hottest day of summer, will soon be covered with a dense vapour, which is water deposited by the air. The same appearance is observed on the outside of any metal vessel, which, in warm weather, contains water cooled by ice or the solution of salt, or even spring water, which is some degrees colder than the air. For other facts of similar kind, see \textit{Water}.

\textbf{Air, in this general sense,} is one of the most considerable and universal agents in all nature; being concerned in the preservation of life, and the production of most of the phenomena relating to our world. Its properties and effects, including a great part of the researches and discoveries of the modern philosophers, have in a considerable degree been reduced to precise laws and demonstrations, in which form they make a very extensive and important branch of the mixed mathematics, called \textit{pneumatics}.

\textbf{Air, mechanical properties and effects of.} The most considerable of these are its fluidity, weight, and elasticity.

\textit{I. Fluidity.} That the air is a fluid, is evident from the easy passage it affords to bodies through it; as in the propagation of smells, and other effluvia, and the easy conveyance it affords to sounds; for these and similar effects prove it to be a body, whose parts give way to any force impress'd, and, in yielding, are easily moved among themselves; which is the definition of a fluid. Besides, it is certain, that no condensation by pressure, nor any degree of cold that has ever yet been produced, natural or artificial, has been sufficient to deprive it of its fluidity. It is true, indeed, that real permanent air may be extracted from solid bodies, and may be also absorbed by them; and in this state it must be very much condensed; but under what form it exists in those bodies, or how its particles are combined together, the researches of philosophy and chemistry have not yet been able to explore.

They who, with the Cartesians, make fluidity to consist in a perpetual intermingle motion of the parts, find that air answers also to that character; thus, in a darkened room, where the species of external objects are brought in by a single ray, they appear in a continual fluctuation; and thus even the more accurate thermometers are observed never to remain a moment at rest.

The cause of this fluidity of air is attributed by some later philosophers to the fire intermixed with it; without which, they imagine, the atmosphere would harden into a solid impenetrable mass. And hence, the greater the degree of fire, the more fluid, moveable, and pervious is the air; and thus, as the degree of fire is continually varying, according to the circumstances and position of the heavenly bodies, the air is kept in a continual reciprocation. See Buffon's Hift. Nat. Supp. vol. i. Hence, in a great measure, it is said, that on the tops of the higher mountains, the fenes of finding, hearing, \\&c. are found very feeble. The increased rarity of the air at a considerable height may account for this effect; but the above hypothesis is contradicted by the more sensible experience of cold: the air, near the surface of the earth, deriving greater heat from the reflected than from the direct rays of the sun. See Mountains.
II. **Weight or gravity.** Of this property of air the ancients were not altogether unapprehensive; though their sentiments on the subject were confused and unsatisfactory. Aristotle (de Caelo, lib. iv. c. 1. op. tom. ii. p. 485.) observes, that all the elements, fire excepted, have weight; and he adds, that a bladder inflated with air, weighs more than when it is quite empty. Plutarch (de Placitis, lib. i. c. 12. tom. ii. p. 883.) and Stoobius (Ueog. Phys. lib. i. c. 17. p. 32. Ed. 1669.) quote Aristotle as teaching, that the weight of air is between that of fire and earth; and he himself, treating of respiration, (cap. vii. oper. tom. i. p. 722.) reports the opinion of Empedocles, who ascribes the cause of it to the weight of the air, which by its pressure infinates itself with force into the lungs. Plutarch (de Placit. lib. iv. c. xxii. tom. ii. p. 993.) expresses, in similar terms, the opinion of Aelianus on this subject; and represents him as saying, that the external air, by its weight, opened its way with force into the breast. Heron of Alexandria, in his treatise intitled **Spiritualia,** constantly applies the elasticity of the air to produce such effects as are sufficient to convince us that he well understood it as property of it: and Cornelius, admitting the principle of the air's elasticity, invented wind-guns, which have been considered as a modern contrivance. Philo of Byzantium (in Viter. Mathem. p. 77. Ed. Paris.) describes these curious machines, constructed upon the principle of the air's being capable of condensation. Seneca also (Quæst. Nat. lib. v. c. v. and vi.) was acquainted with the weight and elastic force of the air; for he describes the constant effort by which it expands itself when it is compressed, and affirms, that it has the property of condensing itself, and forcing its way through all obstacles that oppose its passage. See Dutens Inquiry into the origin of the Discoveries attributed to the Moderns, p. 186. 1769. The followers of Aристotle, however, abandoned the sentiments of their master on this subject; and for many ages maintained a contrary doctrine. The effects which are now known to result from the weight and elasticity of the air, were for a long time attributed to the imaginary principle, called **fius vacui,** or nature's abhorrence of a vacuum; and Galileo himself admitted the principle, though he assigned a limit to it, corresponding to the weight of a column of water 34 feet high. This distinguished philosopher, however, was well apprised of the weight of the air as a body; and, in his Dialogues, he points out two methods of demonstrating it, by weighing it in bottles. But the pressure of the air was discovered by his disciple, Torricelli. In the year 1643, it occurred to him, that whatever might be the cause by which a column of water, 34 feet high, is sustained above its level, the same force would sustain a column of any other fluid, which weighed as much as that column of water, on the same base; and hence he concluded, that quicksilver, being about 14 times as heavy as water, would not be sustained at a greater height than that of 20 or 30 inches. He then made the experiment, called after his name; and inferred from it, that the weight of the air incumbent on the surface of the external quicksilver, counterbalanced the fluid contained in the tube. By this experiment he not only proved, as Galileo had before done, that the air had weight, but that its weight was the cause of the suspension of water and quicksilver in pumps and tubes, and that the weight of the whole column of it was equal to that of a like column of quicksilver, 35 inches high, or of water 34 or 35 feet high; but he did not ascertain the weight of any particular quantity of it, as a gallon, or a cubic foot; nor its specific gravity to water, which had been done, though inaccurately, by Galileo. Torricelli's experiment was published at Warsaw, in Poland, by Valerianus Magnus, as his own discovery; but from the letters of Boyle, it appears, that Torricelli's claim to priority is indefensible; and that neither Valerianus, nor Hononatus Fabri, to whom it has been ascribed so early as the year 1641, can justly dispute it with him. The first discovery of the weight and elasticity of the air has been lately ascribed to Jean Rey, who wrote in 1659, before Galileo, Torricelli, Des Cartes, and Pafchel. His fourth and tenth essays have been cited in favour of his claims; but though he was apprised that comparison augmented the weight of the air, and he seems to have believed, with Aristotle and others at a very ancient period, that air was heavy, yet the proofs which he adduced were not sufficient to convince the incredulity of the philosophers. The Torricellian experiment, by which the fact was established, and which father Merfonne received an account of in 1644, was immediately communicated to the philosophers of France, and repeated in various ways by Mesifs. Pafchel and Petit: and this gave occasion to the ingenious treatise published by Pafchel, at 23 years of age, intitled, **Experiences Nouvelles touchant la Vuide.** Having, after some hesitation, adopted Torricelli's idea, and abandoned the principle of a fius vacui, he devised several experiments for confirming it. One of these was to make a vacuum above the refovoir of quinfillver, in which case he found that it funk to the common level: and he then engaged M. Perrier, his brother-in-law, to execute the famous experiment of Puy-de-Domme, who found that the height of the quinfillver half way up the mountain was less by some inches than at the foot of it; and that it was still less at the top. These facts incontrovertibly proved, that it was the weight of the atmosphere which counterpoised the quickfillver. Des Cartes had also just notions of the power of the air for sustaining fluids above their level, as appears by some letters about this time, and some years before; and in one of these he lays claim to the idea of the Puy-de-Domme experiment. See Cartesii opera. tom. ii. p. 243, 245.

The experiment of Pafchel was repeated in various parts of the world; and particularly in 1653, by Dr. Power, in England; and in 1661, by Mr. Sinclair, professor of philosophy at Glasgow, in Scotland.

That the air is heavy, follows from its being a body; weight being an essential property of matter. And that it is a body, is evident from its excluding all other bodies out of the space it poiffes: for if a glass jar be inverted into a vefsel of water, the air, of which it is full, will allow but little water to enter into it. But we have many arguments to the fame purpofe from fene and experiment: thus, the hand, applied on the orifice of a vefsel empty of air, soon fells the load of the incumbent atmosphere. Thus, glass veffeles, evacuated of their air, are easily crufhed to pieces by the weight of the air without. So, two small hollow fragments of a sphere, four inches in diameter, exactly fitting each other, being emptied of air, are prefled together with a force equal to 188 pounds, by the weight of the ambient air; and that they are kept together by the preffure of the air is evident, by fufpending them in an exafluated receiver, where they will separate of themselves. Farther, if a tube, clofe at one end, be filled with mercury, and the other end immersed in a bafon of the fame fluid, and thus ereded, the mercury in the tube will be fuspended at the height of about 30 inches above the furface of that in the bafon. The reafon of which fuppofition is, that the mercury in the tube cannot fall lower without raifing that in the bafon; which being prefled down by the weight of the incumbent atmosphere cannot give way, unlefs the weight of the mercury in the tube exceeds that of the air out of it.
it. That this is the case, is evident; because, if the whole apparatus be included in the receiver of an air pump, the mercury will fall in proportion as the air is exhausted: and on gradually letting in the air again, the mercury recedes to its former height. This makes what is usually called the Torricellian experiment.

To say no more, we can actually weigh air; for a vessel, full even of common air, is found, by a very nice balance, to weigh more than when the air is exhausted; a quart of air weighing about 17 grams; and the effect is proportionally more sensible, if the vessel be weighed full of condensed air, and more especially in a receiver void of air.

The weight of air is continually varying, according to the different degree of heat and cold, and the concurrence of other causes. Paehal observed it in France; and Des Cartes in Sweden, in 1650. Mr. Boyle, and others, observed it in England, in 1656. Some observers noticed, that it was generally great on the night and in winter; and that its variations were more considerable during winter, and in the northern regions. Hence arose the application of the barometer to the uses of a weather-glass. Ricelius calculates the weight of air to that of water, to be as 1 to 1000; Mercianus as 1 to 1300, or 1 to 1356; Lana, as 1 to 640; Galileo only makes it as 1 to 400. Mr. Boyle, by a more accurate experiment, found it about London, as 1 to 938; and thinks, all things considered, the proportion of 1 to 1000 may be taken as a medium; for there is no fixing any precise ratio, since not only the air, but the water itself, is continually varying. Besides, experiments made in different places necessarily vary, on account of the different heights of the places, the seasons of making the experiment, and the different densities of air corresponding to these circumstances. It must be added, however, that by experiments made since, before the Royal Society, the proportion of air to water was, first, found as 1 to 840; then, as 1 to 850; and a third time, as 1 to 860. Phil. Trans. N° 181. And lastly, by a very simple and accurate experiment of Mr. Haukhbee, the proportion was settled, as 1 to 885. Phys. Mechan. Exper. But these experiments being all made in the summer months, when the barometer was 29½ inches high, Dr. Jurin thinks, that at a medium between heat and cold, when the barometer is 30 inches high, the proportion between the two fluids may be taken as 1 to 800; which agrees with the observation of the honourable Mr. Cavendish, the thermometer being at 50°, and the barometer at 29¾ inches. Phil. Trans. vol. 111. p. 152.

Sir George Shuckburgh, (Phil. Trans. vol. 111. p. 560.) by a very accurate experiment, found it as 1 to 836; the barometer being at 29½ inches, and the thermometer at 53°; and the comparative gravity of quicksilver to air, as 113646 to 1. The medium of all these is about one to 832 or 833, when reduced to the pressure of 30 inches of the barometer, and the mean temperature 55° of the thermometer. Upon the whole, it may be concluded, that when the barometer is at 30 inches, and the thermometer at the mean temperature of 55°, the density or gravity of water is to that of air as 833 1/3 to 1; that is, as 1000 3/4 to 1, or as 2500 to 3; and for any changes in the height of the barometer, the ratio varies proportionally; and also that the density of the air is altered by the 1/3 part, for every degree of the thermometer above or below temperate. This number, which is a very good medium, having the fraction 3/4, gives exactly 163° of an ounce for the mean weight of a cubic foot of air; the weight of the cubic foot of water being just 1000 ounces avoidandips, and that of quicksilver equal to 15600 ounces.

Air, then, being heavy and fluid, the laws of its gravitation, or pressure, may be inferred to the same as those of other fluids; and consequently its pressure must be proportional to its perpendicular altitude. This is also confirmed by experiment. For removing the Torricellian tube to a more elevated place, where the incumbent column of air is shorter, a proportionally shorter column of mercury is sustained; and that nearly at the rate of 100 feet for 1/16 of an inch of quicksilver. On this principle depend the structure and office of the barometer.

From hence, also, it follows, that the air, like all other fluids, must pref of equally every way. This is confirmed by observing, that soft bodies sustain this pressure without any change of figure, and brittle bodies without breaking; though the pressure upon them be equal to that of a column of mercury thirty inches high, or a column of water of thirty-two or somewhat more feet. It is obvious, that no other cause can preserve such bodies unchanged, but the equable pressure on all sides, which acts as much as it is relented. And hence, upon removing or diminishing the pressure on one side only, the effect of the pressure is soon perceived on the other. For the quantity and effect of this pressure of the atmosphere on the human body, and on the surface of the earth, and the laws of different heights, see Atmosphere.

From the gravity of the air, considered in connection with its fluidity, several of its uses and effects may be easily deduced.

1. By means of its weight, &c. it closely invets the earth, with all the bodies upon it; and conftrines and binds them down with a force amounting, according to the computation of M. Paehal, to 2232 pounds weight upon every square foot, or upwards of 15 pounds upon every square inch. Hence it prevents, &c. the arterial vessels of plants and animals from being too much dilated by the impulse of the circulating juices, or by the elastic force of the air, so plentifully contained in the blood.—Thus we see, in the operation of cupping, that, upon a diminution of the pressure of the air, the parts of the body grow tumbid; which necessarily alters the manner of the circulation through the capillaries, &c.

The same cause hinders the juices from ouning and cleanning through the pores of their containing vessels: this is experienced by such as travel up high mountains, who, in proportion as they ascend, find themselves more and more relaxed; and at length become subject to a futting of blood, and other hemorrhages; because the air doth not sufficiently constring the vessels of the lungs. Similar effects are observed in animals that are enclosed under the receiver of the air-pump, who, as the air is taken from them, pant, fivel, vomit, and discharge their urine and excrements. See Vacuum.

2. The weight of the air promotes the mixture of contigious fluid bodies. Hence many liquids, as oils and salts, which readily and spontaneously mix in air, remain, on the removal of it, in a state of separation.

3. This gravity of air does in some cases determine the action of one body above another.

4. To the same principle are chiefly owing our winds, which are only air put in motion by some alteration in its equilibrium. It is the weight of the air that caues the clouds and vapours to float in it.

111. Elasticity—or a power of yielding to an impression by contracting its dimensions; and upon removing or diminishing the impresssive cause, of returning to its former space or figure, is another quality of air. This elastic force
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force has been long accounted the distinguishing property of air; the other properties hitherto enumerated being common to it with other fluids: though, from late experiments, it appears more than probable, that the capacity of being compressed and expanded is not peculiar to air. See WATER and COMPRESSION.

This property of air has been long known, and was ascertained by some experiments of Lord Bacon, who, upon this principle, constructed his *ventrum calidum*, the first thermometer. Bacon, Nov. Organ. lib. ii. aph. 13.

Of this power we have numerous proofs. — Thus, a blown bladder being squeezed in the hand, we find the included air sufficiently relit: so that upon ceasing to compress, the cavities or impressions, made in its surface, are readily expanded again, and filled up.

On this property of elasticity, the structure and office of the air-pump depend.

Every particle of air always exerts this radius, or endeavour to expand, and thus strives against an equal endeavour of the ambient particles, whose reluctance happening by any means to be weakened, it immediately diffuses itself into an immense extent. Hence it is, that thin glass bubbles, or bladders filled with air, and exactly closed, being included in the exhausted receiver of an air-pump, burst by the force of the included air. So a bladder quite flaccid, containing only the smallest quantity of air, swells in the receiver, and appears quite full. The same effect is also found by carrying the flaccid bladder to the top of a high mountain. This experiment shows, that the elasticity of air is different from that of solid bodies; after these have been compressed, they only resume the figure which they had lost; whereas air, when the compressing force is removed, not only dilates, but occupies a much greater space than it did before, nor is it easy to allude the limits of its expansion. From some experiments of Col. Roy (Phil. Trans. vol. 67. p. 708.) it would seem, that the particles of air may be so far removed from one another, by the diminution of pressure, as to lose a very great part of their elastic force. It also appears that the elastic force of common air is greater than when its density is considerably augmented or diminished by an addition to, or subtraction from the weight with which it is usually loaded: a fact which contradicts the experience of Boyle, Mariotte, and others. These experiments also show, that the elastic force of moist air is greatly superior to that of dry air; in some cases the total expansion of the former was more than four times that of the latter.

It has been questioned among philosophers, whether this elastic power of the air is capable of being destroyed or diminished. Mr. Boyle made several experiments, with a view to discover, how long air, brought to the greatest degree of expansion to which he could reduce it in his air-pump, would retain its spring; and could never observe any sensible diminution. Daghiler found that air, after having been enclosed for half a year in a wind-glass, had lost none of its elasticity; and Roberval, after preserving it in the same manner for sixteen years, observed, that its expansive projectile force was the same as if it had been recently condensed. Nevertheless, Mr. Hankfbee concludes, from a later experiment, that the spring of the air may be so disturbed by a violent pressure, as to require some time to return to its natural tone. Dr. Hales inferred, from a number of experiments, that the elasticity of the air is capable of being impaired and diminished by a variety of causes, and of being actually destroyed, so that it is reduced to a fixed state. Hence he also concludes, that elasticity is not an essential immutable property of the particles of air; and that the atmosphere is a chaos, confining not only of elastic, but also of unelastic air.

particles, which copiously float in it. Statical Essays, vol. i. p. 316.

The weight or pressure of the air, it is obvious, has no dependence on its elasticity; but would be the same, whether the air has such a property or not. But the air, being elastic, is necessarily affected by the pre-pressure, which reduces it into such a space, as that the elasticity which reacts against the compressing weight, is equal to that weight. Indeed, the law of this elasticity is, that it increases as the density of the air increases; and the density increases as the force increases by which it is pressed. Now, there must necessarily be a balance between the action and reaction; i.e. the gravity of the air, which tends to compress it, and the elasticity of the air, which endeavours to expand it, must be equal. And the elasticity of the air not very different from its natural state, being as the density, will of course be inversely as the space which it occupies.

Hence the elasticity increasing, or diminishing, universally, as the density increases or diminishes, i.e. as the distance between the particles diminishes, or increases, it is no matter whether the air be compressed and retained in such space, by the weight of the atmosphere, or by any other means; it must endeavour, in either case, to expand with the same force. And hence, if air near the earth be kept up in a vessel, so as to cut off all communication with the external air, the pressure of the inclosed air will be equal to the weight of the atmosphere. Accordingly, we find mercury sustained to the same height, by the elastic force of air inclosed in a glass vessel, as by the whole atmospheric pressure.

On the same principle air may be artificially condensed; and hence the structure of the air-gun.

Although it may be admitted as a general principle, that the density of the air is proportional to the force by which it is compressed, as the experiments of Mr. Boyle and Mr. Mariotte have evinced; yet in the case of condensed air, the rule will not be strictly applicable. When air is very forcibly compressed, so as to be reduced to 1/3 of its ordinary bulk, it makes a greater resistance, and requires a stronger force to compress it than the above principle allows. Hence it appears probable, that the particles of air cannot, by any possible pressure, be brought into perfect contact, or form a solid mass; and therefore that the degree of condensation has its limit. Thus also in very high degrees of rarefaction, the elasticity is decreased rather more than in an exact proportion to the weight or density of the air: whence it may be concluded, that there is a limit to its rarefaction or expansion, so that it cannot be expanded to infinity. Nevertheless, the utmost limits to which air of the density which it possesses at the surface of the earth, is capable of being compressed, have not been ascertained. Mr. Boyle reduced it at one time to the 14th part, and at another to the 40th part of its natural space. (Works, vol. iii. p. 567.) Dr. Halley says, that he has seen it compressed so as to be 60 times denser than in its natural state, which is further confirmed by Mr. Papin, and M. Huygens. Dr. Hales (Stat. Exp. vol. ii. p. 343, &c.) by means of a pump, condensed it 38 times; and by freezing water in an iron ball or globe, into 1522 times less space than it naturally occupies: in which state its density or specific gravity must be nearly double that of water; and as water is very slightly compressible, the particles of air must be in their nature different from those of water; since it would otherwise be impossible to reduce air to a bulk 800 times less than that which it occupies in its natural state.

However, Dr. Halley has ascertained, in the Philosophical Transactions, (Abr. vol. ii. p. 17.) that from the experiments
ments made at London, and by the Academy del Cimento at Florence, it might be safely concluded, that no force whatever is able to reduce air into 800 times less space than that which it naturally occupies on the surface of our earth. In answer to which, M. Amontons, in the Memoirs of the French Academy, maintains, that there is no affixing any bounds to its condensation; that greater and greater weights will still reduce it into less and less compacts; that it is only elastic in virtue of the fire which it contains; and that as it is impossible ever absolutely to drive all the fire out of it, it is impossible ever to make the utmost condensation. The elasticity of the air excits its force equally in all directions; and when released from the force that compresses it, it affirms a spherical figure in the interstices of the bodies that contain it. By exhausting the air from liquors placed under the receiver of an air-pump, the bubbles that gradually arise and are enlarged in size, retain their round figure. Such are also the bubbles that discharge themselves from a plate of metal immersed in a fluid in the same circumstances. On this account large glasses globes are always formed of a spherical shape by blowing air through an iron tube into a piece of melted glass at the end of the tube.

The dilatation of the air by virtue of its elastic force, is found to be very surprising; and yet Dr. Wallis fuppogest, that we are far from knowing the utmost of which it is capable. In several experiments made by Mr. Boyle, it dilated first into 9 times its former space; then into 31 times, then into 60; and then into 150. Afterwards, it was brought to dilate into 8000 times its first space; then into 10,000, and even at last into 13,679 times its space; and this altogether by its own expansive force, without the help of fire. Boyle's Works by Birch, vol. i. p. 21, 22.

On this depend the structure and use of the MANOMETER. Hence it appears, that the air we breathe near the surface of the earth is comprized by the weight of the superincumbent column into at least the 1567th part of the space it would possess in vacuo. But if the air be condened by art, the space it will take up when most dilated, to that it possesses when condened, will be, according to the same author's experiments, as 550,000 to 1.

We hence see how wild and erroneous the observation of Aristotle was, that air, rendered ten times rarer than before, changes its nature, and becomes fire.

It has generally been suppos'd, that air expands to 1/27 with each degree of the thermometer, commencing from the mean temperature 55°; and upon this principle tables have been computed by astronomers for correcting their mean refractions; but Sir George Shuckburgh allows at this temperature an expansion of 1/27 for v. Phil. Trans. v. 67. p. 564. Mr. Hauksbee observed, that a portion of air, included in a glass tube, when the temperature was at the freezing point, formed a volume which was to that of the same quantity of air in the greateft heat of summer in England as 6 to 7. Moir's air has been expanded into more than 12 times the space occupied by it in its freezing state; and Mephenus by means of the volatile expanded it into more than 70 times its natural bulk. Mufchenb. Introduct. ad Phil. Nat. tom. ii. p. 884, 406.

M. Amontons, and others, we have already observed, attribute the rarefaction of the air wholly to the fire contained in it; and therefore, by increasing the degree of heat, the degree of rarefaction may be carried still farther than its spontaneous dilatation. Air is expanded 4 of its bulk by boiling water. Hift. Acad. Se. 1699.

Dr. Hales found that the air in a retort, when the bottom of the vessel was just beginning to b. red hot, was expanded through twice its former space, and in a white, or almost melting heat, it occupied thrice its former space: but Mr. Robins found, (New Principles of Gunnery, ch. 1. prop. 5. p. 12.) that air was expanded by the heat of iron, just beginning to be white, to four times its former bulk. Thus we account for the apparent inflation of a faddle bladder, when it is warmed by the fire, and on this principle depend the structure and office of the THERMOMETER, and also the formation and ascent of air-balloons. See AEROSTATION.

M. Amontons first discovered that air will expand, in proportion to its density, with the same degree of heat. On this foundation, the ingenious author has a discourse, to prove, that the spring and weight of the air, with a moderate degree of warmth, may enable it to produce even earthquakes, and other of the most vehement commotions of nature.

According to the experiments of this author, and M. de la Hire, a column of air on the surface of the earth, 36 fathoms high, is equal in weight to three lines depth of mercury; and it is found, that equal quantities of air possess spaces reciprocally proportioned to the weights with which they are prefled; the weight of the air, therefore, which would fill the whole space possessed by the terrestrial globe, would be equal to a cylinder of mercury, whose base is equal to the surface of the earth, and its height containing as many times three lines, as the atmospheric space contains orbs equal in weight to 36 fathoms of that wherein the experiment was made.—Hence, taking the densit of all bodis, e. gr. gold, whose gravity is about 14,630 times greater than that of air in our orb, it is easy to compute, that this air would be reduced to the same density as gold, by the pressure of a column of mercury 14,630 times 28 inches high, i. e. 409,640 inches, since the bulbs of air, in that case, would be in the reciprocal ratio of the weights by which they are precled. These 409,640 inches, therefore, express the height at which the barometer must stand, where the air would be as heavy as gold, and the number 2,482,443 lines, the thickness of 11 36 of its column of 36 fathoms of air would be reduced in the same place.

Now, we know, that 43,528 fathoms, which is the depth, where the above pressure, and consequent reduction take place, are only the 74th part of the semidiameter of the earth; and, therefore, beyond that depth, whatever matter exists, it must be heavier than gold. It is not improbable, therefore, that the remaining sphere of 6,451,538 fathoms diameter may be full of dense air, heavier by many degrees than the heaviest bodies which we know. Hence, again, as it is proved, the more air is comprized the more does the same degree of heat increaf the force of its spring, and render it capable of a proportionally greater effect; we may infer, that a degree of heat, which in our orb can only produce a moderate effect, may have a very violent one in such lower orb; and that, as there may be many degrees of heat in nature, beyond that of boiling water, it is probable there may be some, whose violence, thus alleviated by the weight of the air, may be sufficient to tear asunder the solid globe. Mem. de l'Acad. an. 1703. See EARTHQUAKES.

This elastic property of air is suppos'd by many philosophers to depend on the figure of its corpuscles, which they apprehend to be ramous: some maintain that they are so many minute fucculent, resembling fleeces of wood; others conceive them rolled up like hoops, and curled like wires, or shavings of wood, or coiled like the springs of watches, and endeavouring to restore themselves in virtue of their texture; so that to produce air, must be to produce such a figure and disposition of parts; and those bodies only are proper
pores subject, which are susceptible of such disposition; which varies, from the smoothness, roundness, and slippery-ness of their parts, are not.

But Sir Isaac Newton (Optics, p. 371.) explains the matter otherwise; such a texture, he thinks, by no means sufficient to account for that rare power of diffusibility observed in air, which is capable of diffusing itself above a million of times more space than it before possessed.—But, as all bodies are known to have an attractive and repelling power; and as both these are stronger in bodies, the denser, more compact, and solid they are; hence it follows, that when by heat, or any other powerful agent, the attractive force is diminished, and the particles of the body separated so far as to be out of the sphere of attraction, the repelling power which then commences makes them recede from each other with a strong force proportionable to that with which they before cohered; and thus they become permanent air. And he has proved, that particles, endeavouring to recede from each other with forces reciprocally proportionate to the distance between their centres, will compose an elastic fluid, whose density shall be proportional to its compression. Hence, says the same author, it is, that as the particles of permanent air are greater, and rise from denser bodies, than those of transient air, or vapour, true air is more ponderous than vapour; and a moist atmosphere is lighter than a dry one.

The elastic power of the air above illustrated and evinced, is the second great source of the effects of this important fluid. By this property, it invisibly diffuses itself into the pores of bodies, and by possessing this prodigious faculty of expanding, which is to easily excited, it must necessarily put the particles of bodies into which it invisibly diffuses itself into perpetual oscillations. Indeed, the degree of heat, and the air's gravity and density, and consequently its elasticity and expansion, never remaining the same for the least space of time, there must be an incessant vibration, or dilatation and contraction of all bodies.

We observe this reciprocation in several instances, particularly in plants, the tree, or air-vessels of which perform the office of lungs; for the contained air alternately expanding and contracting, as the heat increases or is diminished, by turns compresses the vessels, and eases them again: and thus promotes a circulation of their juices. See Air-vessels.

Hence, we find, that no vegetation nor germination will proceed in vacuo. Indeed beams have been observed to grow a little, when in it; and this has led some to attribute the growth of vegetation, which was really owing to no other cause than the dilatation of the air within them.

The air is very instrumental in the production and growth of vegetables, not only by invigorating their several juices, while in an elastic active state, but also by greatly contributing to a fixed estate to the union and firm connection of their several constituent parts, and by supplying them with that food or palatum, which contributes to their growth.

From the same cause it is, that the air contained in bubbles of ice, by its continual action, dries the ice; and thus also, as well as by the expansion of freezing fluids, glaflies and other vessels frequently crack, when their contained liquors are frozen. Thus also, entire columns of marble sometimes cleave in the winter time, from some little bubble of included air's acquiring an increased elasticity; and to this it is owing, that few stones will hear to be heated by the fire without cracking by the expansive force of the air confined within their pores. From the same principle arise purfication and fermentation; neither of which will proceed, even in the best disposed subjects, in vacuo.

Since we find such great quantities of elastic air, generated in the solution of animal and vegetable sublubcles, a good deal must constantly arise from the dissolution of these elements in the stomach and bowels, which is much promoted by it: and respiration, and even animal life, depend in a great measure upon the air.

In reality, all natural corruption and alteration seem to depend on air; and metals, particularly gold, only seem to be durable and incorruptible, in virtue of their not being pervious to air.

Air, effects of the different ingredients of. Air not only acquires its common properties of gravity and elasticity, but there are numerous other effects, arising from the peculiar ingredients of which it consists.

Thus, 1. It not only dilutes and attenuates bodies by its pressure and attrition, but as a Clair containing all kinds of membra, and consequently possessing powers for diffusing all bodies. It is known that iron and copper readily dissolve, and become rusty in air, unless well defended with oil. Boerhaave affirms us, that he has seen pillars of iron to be reduced by air, that they might be crumbled to dust between the fingers; and as for copper, it is converted by the air into a sublubcle much like the verdigris produced by vinegar.

Mr. Boyle relates, that in the southern English colonies the great guns rust to fail, that after lying in the air for a few years, large cakes of crocus marts can be separated from them. Acosta adds, that in Peru the air diffuses lead, and considerably increases its weight. Yet gold is generally esteemed indiffusable by air; being never found to contract rust, though exposed to it ever so long. In the laboratories of chemists, however, where aqua regia is prepared, the air becoming impregnated with an unusual quantity of this menstruum, gold contracts a rust like other bodies.

Stones also undergo the changes incident to metals.—Thus, Purbeck stone, of which Salisbury cathedral consists, is observed gradually to become softer, and to moulder away in the air; and Mr. Boyle gives the same account of Blackington stone. He adds, that air may have a considerable operation on vitriol, even when a strong fire could act no further upon it. And he has found, that the fumes of a corrosive liquor work more suddenly and manifestly on a certain metal, when filled in the air, than the mensurium itself did, which emitted fumes on those parts of the metal which it covered; referring to the effects of the effluvia of vinegar on copper.

The dissolving power of air is increased by heat, and by other causes. It combines with water, and, by access of cold, deposits part of the matter which was kept dissolved in it, by a greater degree of heat. Hence the water, by being deposited and condensed upon any cold body, such as glasses, &c, in windows, forms fogs, and becomes visible. Air, likewise, has been supposed, by means of its dissolving power, to accelerate evaporation and distillation.

2. Air volatilizes fixed bodies. Thus, sea-salt, being hift calcined, then fused by the fire, and when fused, exposed to the air to liquify; when liquified, set to dry, and then fused again, repeating the operation, will, by degrees, be almost wholly evaporated; nothing but a little earth remaining. Helmont mentions it as an arcanum in chemistry, to render fixed falt of tartar volatile; but this is easily effected by air alone: for, if some of this falt be exposed to the air, in a place releate with acid vapours, the falt draws the acid to itself, and when satureted with it, is volatile.

3. Air also fixes volatile bodies. Thus, though spirit of...
AIR

of nitre, or aquafortis, readily evaporates by the fire; yet if there be any putrefied urine near the place, the volatile spirit will be fixed, and fall down in form of aqua secunda.

4. Air brings many quiescent bodies into action; i.e., excites their latent powers. Thus, if an acid vapour be diffused through the air, all the bodies of which that is the proper menstrum, being dissolved by it, are brought into a state proper for action.

In the various operations of chemistry, air is a very necessary and important agent, the result of particular processes depending on its presence or absence, on its being open or enclosed. Thus the parts of animals and vegetables can only be calcined in open air; in cloze vessels they never become any other than black coals. And these operations are effected by the changes to which the air is liable. Many instances might be adduced to this purpose. Let it suffice to observe, that it is very difficult to procure oil of sulphur, per companion, in a clear dry atmosphere; but in thick moist air it may be obtained with greater ease, and in larger quantities. So pure well-fermented wine, if it be carried to a place where the air is replenished with the fumes of new wine, then fermenting, will begin to ferment afresh.

The changes in the air arise from various causes, and are observable not only in its mechanical properties, such as gravity, density, &c. but in the ingredients that compose it. Thus, at Faslium, in Sweden, noted for copper-mines, the mineral exhalations affect the air in such a manner, as to discolor the silver coin in purses; and the same effluvia change the colour of brasses. In Carniola, Campania, &c. where are mines of sulphur, the air sometimes becomes very unwholesome, which occasions frequent epidemic diseases, &c.

The effluvia of animals also have their effect in varying the air, as is evident in contagious diseases, plague, murrains, and other mortalities, which are spread by an infected air.

The sudden and fatal effect of noxious vapours has generally been supposed to be principally, if not wholly, owing to the fogs and vales of the vivifying spirit of air. But Dr. Halley attributes this effect to the fogs of a considerable part of the air's elasticity, and to the grossness and density of the vapours with which the air is charged. He found, by an experiment made on himself, that the lungs will not rise and dilate as usual, when they draw in such noxious air, the elasticity of which has been considerably diminished. For having made a bladder of very supple by wetting it, and then cutting off so much of the neck as would make a hole wide enough to admit the biggest end of a large foffet, to which the bladder was bound; and then having blown the bladder, he put the small end of the foffet into his mouth, and, at the same time, pinched his nostrils so close, that no air might pass that way, and he could only breathe to and fro the air contained in the bladder, which, with the foffet, contained fifty-four cubic inches. In less than a half a minute, he found a considerable difficulty in breathing; and at the end of a minute, the bladder was become so flaccid, that he could not blow it above half full, with the greatest exertion which he could make; and at the same time, he could plainly perceive that his lungs were much fallen, in the same manner as when we breathe out of them all the air we can at once. Hence he concluded, that a considerable quantity of the elasticity of the air was destroyed; and that when the suffocating quality of the air was the greatest, it was with much difficulty that he could dilate his lungs in a very small degree. From this, and several other experiments, he inferred, that the life of animals is preferred rather by the
dilute force of the air acting on their lungs than by its vivifying spirit; and that candles and matches cease to burn, after having been confined in a small quantity of air, not because they have rendered the air effeet by consuming its vivifying spirit, but because they have discharged a great quantity of acid fufeguous vapours, which partly destroy its elasticity, and retard the dilute motion of the remainder. He likewise found, that air, which passed through cloths dipped in vinegar, could be breathed to and fro as long again as the like quantity of air, which was not thus purified; for that sprinkling the decks of ships with vinegar may refresh the air; and this is confirmed by experience. But where the corruption of the air is much greater, as in close prisons, &c. nothing can be an adequate and effectual remedy but a ventilator. He observed, likewise, that air is not disqualified for respiration merely by the additional moisture which it receives, but by some bad quality in that moisture. See his Statical Essays, vol. i. p. 250. vol. ii. p. 320, &c.

Dr. Priestley observes, that, when animals die upon being put into air, in which other animals have died, after breathing in it as long as they could, it is plain that the cause of their death is not the want of any pabulum ater, which has been supposed to be contained in the air; but because the air is impregnated with something stimulating to their lungs; for they almost always die in convulsions, and are sometimes affected to suddenly, that they are irrecoverable after a single inspiration. And he has found the same effect from many other kinds of noxious air. He concludes, from subsequent experiments, that the air becomes phlogisticated in its passage through the lungs, by means of the blood. Experiments and Observations on Air, vol. i. p. 71. vol. ii. p. 31. vol. iii. p. 55. See Azot, Blood, and Respiration.

Vegetables likewise produce a change in the state of the air. Thus when a great part of the clove trees, which grow so plentifully in the island of Terror, was felled at the solicitation of the Dutch, in order to heighten the value of that fruit, such a change ensued in the air, as showed the fatal effects of the effluvia, or rather of the vegetation of the clove-trees, and their blossoms; the whole island soon after they were cut down, being exceeding sickly. See Azot.

The air is also liable to alterations from the season of the year. Thus few subterraneous effluvia are emitted in the winter, because the pores are locked up by the frost, or covered by snow; the subterraneous heat being at work, and preparing a heat to be discharged in the ensuing spring. Again, from the winter follicle to the summer follicle, the sun's rays become more and more perpendicular, and consequently their impulse on the earth's surface more powerful; so that the globe, or soil, is more and more relaxed, softened, and putrefied, till he arrives at the tropic; where, with the force of a chemical agent, he refolves the superficial parts of the earth into their constituent principles, water, oil, salt, &c. which are all swept away into the atmosphere.

The height and depth of the air produce a further alteration; the exhalations not rising high enough in any great quantity, to ascend above the tops of high mountains.

From some experiments with air-balloons, it has been proved, that the air of the higher regions is more impure than that at the surface of the earth; which is reasonably ascribed to the oxygen supplied by vegetation to the lower and contiguous horizons of air.

Nor must drought and moisture be denied their share, in varying the state of the atmosphere; in Guinea, the heat, with the moisture, conduces so much to putrefaction, that the purest white sugars are often full of maggots; and their drugs
For the refracting power of air, see Refraction.

After all, some of our more curious and penetrating naturalists have observed certain effects of air, which do not appear to flow from any of the properties, or material, above recited. In this view, Mr. Boyle has compos'd a treatise of philosophers about some unknown properties of the air. The phenomena of fire and flame in vacuo seem, according to him, to argue some unknown vital substance diffused through the air, on account of which that fluid becomes so necessary to the subistence of flame. Buffon supposes that air is necessary to the subistence of fire, because it is most adapted to acquire that expansive motion, which is the principal property of fire. On this account fire combines with air; in preference to any other substance, and in a more intimate manner, as being of a nature most nearly approaching to its own; and therefore air is the proper aliment and most powerful of all.

According to Dr. Priestley, the air is a medium for the phlogiston emitted by burning bodies; which must cease to burn when that medium is saturated with it. And he accounts in the same manner for the suffocation of animals in a confined space. When the phlogiston, emitted by burning bodies and breathing animals, can no longer be absorbed by the ambient air, both life and flame are extinguished. Exp. and Ob. see vol. i.

For the modern hypothesis, with regard to this subject, see Combustion and Phlogiston.

Thus we find, that many causes combine to produce very considerable alterations in the state of the air, whereby it becomes less fit for respiration, and other purposes of nature; and if there were no provision for restoring its salubrity, it must, in time, become universally injurious and fatal. Dr. Priestley, in the course of his inquiries on this subject, has discovered the great reitorative, which are provided for this purpose. One of these is vegetation. In order to ascertain this fact, he put a sprig of mint, in a vigorous state, under a glafs jar, inverted in water; and he found, contrary to his expectation, that this plant not only continued to live, though in a languishing way, for two months; but that the confined air was so little corrupted by the effluvia of the mint, that it would neither extinguish a candle, nor kill a small animal, which he conveyed into it. He found, likewise, that air, vitiated by a candle left in it till it was burnt out, was perfectly restored to its quality of supporting flame, after another sprig of mint had vegetated in it for some time. And, in order to shew that the aromatic flavour of the plant had no share in producing this effect, he observed, in a variety of other experiments, that vegetables of an offensive smell, and even such as had fear'd any smell at all, but were of a quick growth, proved the best for this purpose. Nay, more, the virtue of growing vegetables was found to be an antidote to the baneful quality of air, corrupted by animal respiration and putrefaction; and he infers from a number of similar facts, that the injury, which is continually done to the atmosphere, by the respiration of so many animals, and the putrefaction of such masses of both vegetable and animal matter, is, in part at least, repaired by the vegetable creation; and notwithstanding the prodigious mass of air that is corrupted daily by the above mentioned causes; yet, if we consider the immense profusion of vegetables upon the face of the earth, growing in places suited to their nature, and consequently at full liberty to exert all their powers, both inhaling and exhaling, it can hardly be thought, that the remedy is not adequate to the evil. Dr. Franklin, in a reflection on this discovery, expresses his hope, that it will give some check to the rage of destroying trees that grow near houses, which has accompanied our late improvements in gardening, from an opinion of their being uselefs; adding, from long observation, that there is nothing unhealthy in the air of woods, "since the Americans have their country habitations in the midst of woods, and no people on earth enjoy better health, or are more profitable." Dr. Priestley has since discovered that light is necessary to enable plants to purify air: however, pure air is not produced by light, or plants, but only by the purification of the impure air to which the plants have access. Obs. and Exp. on Air, vol. v. p. 18, 24, &c.

The sea, and other large bodies of water, are the second source, which nature has provided for reftoring the salubrity of corrupted air. Dr. Priestley found, that all kinds of noxious air were removed by continued agitation in a trough of water; the noxious effluvia being fewl imbibed by the water, and thereby transmitted to the common atmosphere. And he hence concludes, that the agitation of the sea, and of large lakes and rivers, must be highly useful for the purification of the atmosphere; the putrid matter being absorbed by the water, and imbibed by marine, and other aquatic plants, or applied to purposes yet unknown. Exp. and Ob. vol. i. fect. 2. and 4.

This ingenious philosopher apprehends, that the agitation of water, and the vegetation of plants, purify noxious air, by absorbing part of the phlogiston with which it is loaded; and that this phlogistic matter is the most essential part of the food and support of both vegetable and animal bodies. Ib. vol. i. p. 138, 139.

Dr. Priestley, improving upon the experiments and investigations of Boyle, Hales, Brownrigg, Black, Macbride, Cavendish, and others, has discovered many species of air, extracted by various processes from different kinds of substances; of which a summary account will be given in the course of this work. See also his curious and valuable Experiments and Observations on different Kinds of Air, in five volumes. And for a compendium of the history of discoveries on this subject, Lavoisier's Essays Physical and Chemical, vol. i.

For the resistance of the air, see Resistance. Air, undulation of. See Sound and Undulation. Air, in Chemistry. See Gas.

Air, Atmospheric, common air, Gare atmospherique, Fr. Atmospheric air does not appear to have been the subject of chemical investigation before the time of Boyle; for though Aristotle, Pliny, and Paracelsus, have written largely concerning this fluid, they have confined themselves to the imperfect examination of some of its physical properties, to the mention of a few obvious facts, and to the invention of hypotheses, which, as they do not profess to be founded on experiment, may, in the present state of knowledge, be safely neglected.

It was, indeed, natural, that the great improver of Otto Guericke's original air-pump, fond as he was of chemical pursuits, should exercise his talents in researches on the properties of the atmosphere, more especially as, from the number of substances continually affuming the form of vapour, it was not improbable that common air should prove a very heterogeneous and easily decomposable mixture. The difficulty,
difficulty, however, of separating, by the only method then known, a portion of air from the rest of the atmosphere, and the necessary uncertainty of the first rude attempts to operate upon an invisible effusive substance, occasioned the progress of discovery in this department of chemical science to be unusually slow. The following facts, however, were ascertained by Boyle, which, when we consider the numerous obstacles from bad and imperfect apparatus that he had to contend with, are highly creditable to his industry and sagacity. He proved, that the presence of air was necessary to combustion and to animal life, by shewing, that in the exhausted receiver flame was almost immediately extinguished, and various small animals, and even fish, while in water, were in a short time killed: that the same phenomena take place, but more gradually, in a confined portion of atmospheric air; and that the death of animals in this situation, was not owing to the heated exhalations from their bodies, as was then supposed, since the flame effects took place when the apparatus was put into a frigorous mixture: he also ascertained, that animals live longer, ceteris paribus, in a given bulk of condensed than of rarefied air. On the imperfection of his apparatus, he was induced to believe, that no absorption of air took place in respiration; and he appears to have had no suspicion that pure atmospheric air was a compound substance.

Immediately after Boyle, succeeded Mayow, unquestionably the greatest chemical genius of that age, but whose works, by a singular fatality, excited little or no interest among his contemporaries, and were soon totally forgotten. In this state of unmerited neglect they remained for more than a century; and it is only within a very few years, that the public attention has been directed to the writings of a philosopher, who nearly anticipated those discoveries of Priestley, Lavoisier, and Cavendish, upon which are based almost all the modern improvements in chemistry. The first great improvement of Mayow in the analysis of atmospheric air, was the invention of a proper apparatus; for this purpose, rejecting the use of the air-pump, he made choice of glass jars, inverted in water, as the best method of confining the gasses upon which he experimented. Setting out from the facts discovered by Boyle, he shews, that since a lighted candle is extinguished much sooner in an exhausted receiver than in the same when filled with air, there must be something contained in the atmosphere necessary to the continuance of flame; and that a candle, in confined air, is not suffocated by its own sluggish exhalations, but dies away for want of an aerial pulpum. The necessity of air to combustion is also proved, and respiration, as the impossibility of kindling a combustible body in vacuo by the concentrated solar rays, or by any other method. Having established this first position, he proceeds to infer, that it is not the whole air but only its more active particles, that are capable of supporting flame, because a candle goes out in confined air, while yet the greatest part of the effusive fluid remains unconfined. Also, since sulphur, when mixed with nitre becomes capable of inflammation in vacuo, or even under water, it follows that nitre and atmospheric air contain some substance in common, which he calls fire-air particles (particula igneo-aereae). He next determined the analogy between flame and animal life; and shewed, that each depended for their continuance on a supply of fire-air particles; that there was an actual consumption of air in combustion and respiration he proved, by the rise of water in the jars in which a live animal or a lighted candle was included; and that the loss of bulk was owing to the abstraction of fire-air, appeared from the inability of the residue to support animal life. He also inferred, that the fire-air particles were the heaviest part of atmospheric air, because, if two mice or two candles were confined in a tall cylindrical jar, inverted in water, so that one should be near the upper part of the vessel, and the other at the bottom, the upper one, whether a candle or animal, would be extinguished some time before the lower one. With regard to the proportion of fire-air in the atmosphere, he only observed, that air rendered unfit for combustion by the breathing of an animal, left about one fourteenth of its bulk; at the same time remarking, that there was probably only a part of the fire-air consumed; he afterwards, indeed, found, that the solution of iron in aquafortis occasioned a diminution of about 25 per cent. in atmospheric air; but though, in this case, he produced nitrous gas, and thus abstracted the oxygen of the atmosphere, yet, as he himself draws no conclusions from it, we should rather consider this as an accident than a discovery. Mayow never obtained the fire-air of the atmosphere in a separate state, and therefore was unable to confirm his analysis of atmospheric air by the synthetic proof; nevertheless, he was warranted by a very high probability in affirming that the atmosphere consisted of two kinds of air, of which the igneo-aerial was in the proportion of at least one to 15; that it exceeded the other part in its specific gravity, and was absolutely essential to the continuance of flame and animal life. The influence, however, of the prevalent hypothesis was at that time too strong to be shaken by sober experiment; and the labours and very name of Mayow, shortly sunk into oblivion: the atmosphere was still supposed to be an undecomposable element, and its effect on chemical processes was very generally overlooked.

In 1774, exactly a century after the publication of Mayow's work, the important discovery of dephlogisticated air, by Dr. Priestley, took place. This philosopher having included some mercurial precipitate per se, in a jar filled with mercury, and inverted over the same, procured from it, by means of heat, a quantity of gas, in which a candle burnt with an enlarged flame, and increased light: the coincidence of this, with the effect produced by dephlogisticated nitrous gas in the same circumstances, as had already observed by Dr. Priestley, induced him to believe that there was some common principle in nitrous acid and atmospheric air; and this suspicion was still further confirmed by the discovery, that common red precipitate, which is prepared by means of nitrous acid, yields dephlogisticated nitrous gas in the same manner as the precipitate per se. Hence, too, he concluded, that pure atmospheric air was not an element, and that dephlogisticated air was that one of its component parts to which the continuance of flame and animal life was entirely owing. Thus we find, both Mayow and Priestley arriving at the same general conclusions, through the medium of entirely different experiments; the fire-air of the one, and the dephlogisticated air of the other, being only two words for the same substance; the experiments of the latter pacifies, however, that capital superiority, that they exhibit in a separate uncombined state, that vital part of the atmosphere, the existence of which was only to be inferred from that of the former. There yet remained, however, for the complete proof of the composition of the atmosphere, that a part of it should be actually decomposed, so as to shew its elements separated; and then, by their union, to recombine atmospheric air. This deficiency was supplied by Lavoisier. He confined a few ounces of mercury and a certain portion of atmospheric air in proper glass apparatus, and exposed the mercury for 12 days to a heat nearly equal to that of ebullition; during this period a part of the mercury was converted into a red oxide; a certain portion of
the air disappeared, the remainder was incapable of supporting flame, and the weight of the red oxide exactly corresponded with the base furnished by the mercury and the air; this red oxide, being then heated in a small retort, was decomposed into running mercury and a gas which exhibited all the properties of dephlogisticated air; finally, this air, being mingled with the dephlogisticated and recomposed atmospheric air, from these and various other similar experiments, it appeared, that the lower part of the atmosphere consists of 27 parts oxygen gas, and 73 of a mephitic air, which upon further analysis, yielded about 72 parts of nitrogen gas, and one of carbonic acid. These experiments will be further detailed under the term chemistry.

From the slight adherence of these gases with each other in the air, it is probable that they are not so much in a state of combination as of intimate mixture; and hence there are scarcely any chemical actions produced by the atmosphere, which are not more properly referable to one or other of its constituent parts.

Atmospheric air, as such, is soluble in water; from which it may be separated by the action of the air-pump, or by long boiling or distillation; hence fish, confined in fresh distilled water, soon die for want of air; if, however, the water has been previously exposed to the atmosphere, a sufficient portion is absorbed to supply the demands of these animals. In like manner water is soluble in air, but the proportion of this must necessarily vary according to the differences in temperature and barometrical pressure. Boyle's works, vol. ii. Mayow, Tractatus, &c. Priebley on Air. Lavoisier's Elements.

Air, fictitious. While pneumatic chemistry was in its infancy, all those elastic fluids produced in chemical experiments, were distinguished by this appellation from the air of the atmosphere; since, however, these fictitious airs have acquired peculiar names, the term has fallen into disuse.

Air, acid. See Muriatic acid.

Air, fixed. See Carbonic acid.

Air, vitriolic acid. See Sulphurous acid.

Air, acid. See Fluoric acid.

Air, dephlogisticated marine. See Oxymuriatic acid.

Air, vegetable acid. See Acetous acid.

Air, nitrous. See Nitrous gas.

Air, dephlogisticated nitrous. See Nitrous oxide.

Air, mephitic atmospheric. See Azot.

Air, vital. See Oxygen.

Air, pure. See Fire.

Air, dephlogisticated. See Oxygen.

Air, inflammable. See Hydrogen.

Air, sulphurated inflammable. See Hydrogen sulphurated.

Air, heavy inflammable. See Hydrogen carbonated, or Carbon, effusive oxide of.

Air, alkaline. See Ammonia.

For an account of Dr. Priebley's numerous experiments and observations on these several species of air, the reader is referred to the excellent work already cited.

Air, innate, in Anatomy, is a fine aerial substance, supposed, by some anatomists, to be enclosed in the labyrinth of the inner ear, and to minister to the due conveyance of sound to the faculty.

But the existence of such innate air, has been called in question, and rendered very improbable. See Ear.

Air, in Geography. See Air.

Air, a mountain of Arabia Felix, to the north of Medina, and near it. It abounds with trees that yield frankincense.

Air, atmospheric, in Medicine, when combined with mufk, different degrees of heat, electricity, and various eflFects and medicines, constitutes the atmosphere; and forms one of those fine external circumstances so celebrated in the schools, called non-naturals. Simple atmospheric air is no further an object of medicine or physiology than as it forms the medium of respiration. See the preceding and subsequent articles.

Air, in Music, signifies the melody, or treble part of a musical composition.

The word is also used for a tune, or song itself, that is, for a series of sounds whose movement is regular and graceful. Rhyme is as necessary in a musical air, whether vocal or instrumental, as in the words of a song. Each bar of an air should be well accented, and the periods well placed.

The rules for harmony are mechanical, and neither difficult to learn nor teach, as may easily be conjectured from the innumerable treatises in all languages for combining sounds in composition. Aritotle, Horace, Boileau, and Pepe, have told us how good poems are constructed; but who shall tell us how to think, how to invent, to ferment ideas? Among all the receipts for constructing harmony, we have none that are intelligible for melody: we are told what may be done, by what has been already successfully attempted; but this is only telling us what we may imitate, and whom we may imitate. There are no magic wands to point out, or vapours hovering over springs of invention; no indications where the golden mine of new conceptions lies hidden. So that from age to age, memory and compilation supply common minds, and satisfy common ears. It has been said:

"Sometimes a hero in an age appears;
But scarce a Purcell in a thousand years."

Handel was our magnus Apollo during the last century, and Rameau that of France. At present, Haydn and Mozart are the gods of our idolatry, and tho' of all Europe. But it is only such gifted men as these who furnish the rest of mankind with ideas.

The origin and progress of melody, derived from harmony, and phrased and formed into Air, have been fully detailed in the Gen. Hist. of Music, in tracing the progress of the musical drama or opera. National music every country, not wholly savage, has had from time immemorial. In Europe, Sicily, Spain, Provence, Venice, Scotland, Ireland, and Wales, have characteristic melodies or tunes, of great antiquity. But the first pleasing Airs, in cultivated music, that I have been able to find harmonized, and in regular modulation, were printed in three and four parts in separate books at Naples, in 1575. Of these the mufk are airy, the intervals pleasing, and the counterpoint fine肤色 all the parts generally moving together. They are printed without bars. The modulation borders a little on that of the ecclesiastical modes, but it begins and ends in the same key, which does not often happen in national tunes.

Air, in Music, has various applications: in the melodrama, or opera, it distinguishes measured melody from recitative.

A bal-
A ballad, tune, or short instrumental air, consists of two stanzas or parts.

No very satisfactory etymology has been found for the word Air. Salzman believes that it comes from aria, Lat.; but Menage disputes this derivation, in his Etymological Dictionary, without furnishing a better. The term airs in Italian, is of no high antiquity: the full influence of its use in the Italian Dictionary is from Redi, who died in 1698.

We know, however, that the word became of general use about the middle of the 17th century.

Though Air sometimes implies the words of a song, as well as the melody in general; nice discrimination requires, that we should confine its import to melody, a tune, alone, and not to the words. A line or pleading air has nothing to do with the poetry, which may be free, though ill set. And the air may be beautiful, even to nonsensical words.

Measured air, in an opera, is opposed to recitative, where no regular time is observed. This musical declamation, which needs only two kinds of notes, crotchets and quavers, with pauses at the end of a verse, approaches nearer to what we conceive to have been the vocal music of the ancients, confined to longs and shorts, than any of our Airs, except such as are very simple, can do. Chanting, in the Cathedral service, is more rapid than recitative; but resembles it by the absence of regular measure, more than Air, which must be arranged in some one of the divisions of common or triple time.

In accompanied recitative, short passages or fragments of Air occur in the instrumental parts, in measured melody, which is often called symphony; but the Italians, with more propriety, style these fragments Ritornelli; which see. Sometimes indeed the instruments accompany the reciter in regular time, which obliges the finger to pronounce the recitative in measure, (which likewise see). Of these the performers are informed by the words a tempo, in time.

A vocal air is only the melody of a single part or voice. If another part is added to it, in different intervals, it is styled a Duo, or Duet; in three parts, a Trio; in four, a Quartet, or Quartet, &c.

The Ancients had Airs, both vocal and instrumental, called NOMES. The words of lyric measures, which we should call songs, were styled Scholia, (which see under their several articles).

In the work of Philodemus on music, which has been recovered from the cinders of Herculaneum, the bell and only musical information it contains, after being so long expected, and with such difficulty deciphered, is the solution of the miraculous powers ascribed by the poets to Amphiion, of building cities by music. We find in this tract, (which is but a fragment, and neither a treatise nor a eulogium on music, but a severe satire) that every trade, occupation, and profession, had its names peculiar and appropriate Airs, which were played to the workmen; so that towns were not built by music, but to make them. It has been proved that if an instrument be regulated and animate the rowsers. Orphins, civilising the world, and introducing religion and order among mankind, implied only that religious rites were accompanied by music. See PHILODEMUS.

The derivation and progress of air in dramatic music will be found under the article opera, in which lyric poetry became subordinate to music. We fear the word subordinate will offend the poets, and such as love poetry better than music. "The words (says Franklin) are only an excusè for singing." And Stillings affirms "who reads the words of a long, but the author?" In a musical drama, the bassista is all transfigured in recitative, or declamation: which bassista, at the end of a scene, is illustrated by a finale, or a few passionate lines, let to measured stanzas, in florid counterpoint; and these are calculated to display the talents of a singer, and the genius and abilities of a composer. Were this not the case, and if the poetry were better felt, and understood by the mere articulation and impalpable conjunction of common speech, why disguise and involve it in a tune, accompanied and encumbered by different melodies?

"A song, or the words of an air for a great composer to set, and a capital finger to execute, should consist only of short syllables or patterns, expressed in as few and soft sounds as possible." Metastasio has furnished the best model of words for airs in the Italian opera. And with respect to English dramas for music, on the Italian plan in all things, except the dialogue being declaimed in common speech, instead of the musical tones of recitative, we shall venture to quote on the subject of long-writing opinions which we thought just 50 years ago, and which, during that period, we have few to reason to retract.

"Since the refinement of melody, and the exclusion of recitative, a long, which usually recapitulates, illustrates, or clafles a scene, is not the place for epigrammatic points, or for a number of heterogeneous thoughts and clashing metaphors; if the writer has the least pity for the composer, or love for music, or wishes to afford the poet opportunity for symmetry in the air, the thought should be one, and the numbers as smooth, and the expression as easy and laconic as possible. What sublime ecclesiastical music has Handel composed on the single words Alleluja, and Amen! But, in general, every line in our songs, introduces a new thought; so that if the composer is more tender of the poet's reputation than his own, he must, at every line, change his subject, or be at strife with the bard; and in either case, the alternative is injurious to the general interest of the music, poetry, and audience.

"In an air, it is by reiterated strokes that passion is intensified; and the most passionate of all strains, is, perhaps, that in which a beautiful passage is repeated and varied, and when the finger, by a few appropriate notes of pity, feeling, or spirit, returns to the first subject, while it fills the ear, and is recent in the memory; this licence, no doubt, may be, and often is, abused; but not by men of true genius and taste." Present state of Music in France and Italy.

Alessandro Scarlatti, Vinci, and Pergolesi, were the first who refined, clarified, and polished vocal melody, and settled the form and canthata of dramatic airs. But these elegant strains, composed for great singers, and a polite audience, are totally different from national melodies, which are traditional, and were invented long before either the gamut or modulation was settled: as may be discovered by innumerable old tunes of different nations, that begin in one key, and end in another. Indeed the ancient chants of the Roman church did the same. See CHANT and CANTO FERMO.

The Gluckists, in France, confine all airs that they are unable to sing, or that are likely to draw the attention of the audience from the poet to the musician. M. Suard, in a long and well-written article of the new Encyclopédie Methodique, has analyzed several of the most exquisite and renowned Italian opera airs that have ever been sung on the stage, with a severity that borders on infelicity. All the charms,
charms, illusion, and exotic pleasure, arising to ears disposed to be pleased by vocal embellishment, is roused away. It would be more for the advantage of real lovers of music, if they would reason left and listen more, at musical performances. Music is an object of taste, not of intellect. Does the composition please by its incantation, grace, and variety? Does the voice or tone of the instrument by which it is executed, delight and charm you, by its intrinsic sweetness and accurate execution?—You then may venture to pronounce to yourself, that the composition and performance are perfect, without alluding superciliously, and often superciliously, what you are to say.

In spite of our reverence for poetry, and partiality to the dramas of Mettafio, we are inclined to think that airs, on the best models of Italy, may be introduced in a musical drama, without injuring the poet or the interest of the piece. No one is more delighted with the poetry of Milton, Dryden, or Pope, than the author of this article, when he reads, or hears it read; but he never wishes it to be sung. Lyric poetry is a distinct species of verse, and varied verification, which is to delight by other means thananimation, logic, or philosophy. As painting is a refinement of the occult sense, music purifies and augments the power of the auricular organ. We can exist without either painting or music; both are innocent luxuries: in the one, we have objects in nature to copy and judge by; but in music, wholly a work of art and imagination, of which we have no type in nature; every arrangement and combination of sounds that is grateful, graceful, and pleasing, which has not been rendered uncouth by time, or vulgar by common use, is in the forebouche of a composer; whose business it is to select, adjudge, and introduce it to the ear, as propriety and occasion may require.

To give a specimen of every species of air, vocal and instrumental, which cultivated genius has produced, would occupy many volumes of our work. All we can do is to give the nomenclature of those movements that are, and have been, in most general use, with their definitions: such as prelude, adagio, allegretto, minuet, jig, farabanda, fantana, polonaise, roundel, bourrée, country dance; and in Italy, barcarola, aria alla napoletana, alla curfone, trencianna, &c. &c. all which see under their several heads.

Recitatives and airs for a single voice, succeeded madrigals of three, four, and more voices; as sonatas and concertos did Fantasias for instruments. (See these terms in their several places.)

In dramatic music, there are three several kinds of air: Aria di canzona, a pathetic song; aria di bravura, a song of execution; and aria parlante, a speaking air; besides the ombus, rondel, canzona, &c. There and the several movements in the dance of an opera, are varied to infinity. But the scale, as it is now divided and extended, offers ample materials for them all. If we but consider that the number of changes in eight bells, where there is no modulation or change of key, amounts to 40,320; that the twelve semi-tones of the octave, every one of which made a key-note, major and minor, generates as many transitions as the key of C; that the melodies found in these 12 scales may be ill varied by the different lengths of notes, and may be truly said to be incalculable; and lastly, if we recollect what variety may be given to an air or melody arising warrantably from the fundamental base of each key, by different accompaniments, inversions, and double counterpoint, we shall be lost in the maze of infinite divisibility! The changes upon 12 bells, (suppose from G in alt, 5th space in the treble, to C 6th line in the bass) amounting to 479,000,000; would employ to ring them all, 12 men, night and day, for 75 years, ten months, one week; and three days, according to the proportion of ringing 7,200 changes in an hour of an astronomical day of 24 hours, 366 of which complete the year! See Bells, Carillons, and Changes.

Since du capo have been abandoned in the opera air, which occasioned many dramatic absurdities, the cavalleria, or single strain, without a second part, prevailed; but that not furnishing an opportunity for fingers of great abilities, to manifest all their powers of execution, taste, and expression, in the same air; of late, every air for a great finger is a duo caratteri, of two characters, consisting of two distinct movements, usually an andante and an allegro di bravura. It is often difficult from the sense of the words, to assign any other reason for these sudden shifts of passion, after a soothing and pathetic movement, but that of convincing the audience of a finger's marvellous agility of throat, and powers of exciting surprize by des tours de force. If such airs were composed purposely for a concert, at which a performer, from the multiplicity of his or her engagements, could only day to sing one song, and that connected with nothing else, airs of two characters might encourage the finger's fame, and the pleasure of the audience, without absurdity; but in a serious drama, where character, connexion, and propriety should be supported, after labouring through a slow movement in a melancholy drag, as every finger does, if not gifted with powers of new and appropriate embellishments, the setting off full speed without a word appearing in the libretto, or opera book, for the necessity of taking flight in such an outrageous manner, we pity the poet and ourselves for being thus defrauded of all dramatic interest. In the course even of two acts, to which an opera is now cut down, opportunities for displaying all the powers of a finger, however extraordinary and various, may be found in every principal part, without violating the dignity of character, and rules of common sense. See MELODY, SONG, TONE, AND OPERA.

Air, in Mythology, was adored by the heathens under the names of Jupiter and Juno; the former representing the superior and finer parts of the atmosphere, and the latter the inferior and groffer parts. The augurs also drew prefigs from the clouds, thunder, lightning, &c.

Air, in Painting, &c. denotes the manner and very life of action; or it is that which describes such of those refined expreisions, that do not arise from the motion of the features of the face, which are to be considered as the immediate agents in expreeing the passions of the soul (see Passions); but from the turn of the body, and especially of the head and neck. This term air is more particularly synonymous with gesture, or graceful action of attitude. Painters are in danger of falling into affectation, while they attempt to give an air of elegance above vulgar ideas. Corregio and Guido have excelled in the arts of the heads, as well as of the whole figures they painted; but, perhaps, in some infinities, even they may have exceeded the due bounds of nature.

Air, in Painting, is also a great subject of consideration, as the intersecting medium which tends to diminish the force or strength of objects and colours. See the article Perspective Aerial.

Air, in Surgery. The application of gaseous matters to the purposes of surgery, has not been sufficiently attended to. There is reason to believe that several aeriform substances might be employed locally, as well as internally, to considerable advantage; but it would exceed the bounds we have prefixed to this department of our work, were we to adduce all the facts that might be brought forward to illustrate
illustrate the medicinal powers of air, in its different combinations. The application of fixed air, or carbonic acid gas, by means of the fermenting cataplasm, is pretty generally known, in cases of festid and gangrenous sores. It has been advantageously used also in malignant ulcers of the nose, tongue, and mouth, as well as in caries of the bones.

Fixed air is plentifully obtained from a mixture of alkaline or chalky substances with vitriolic acid; and during the effervescence, applying the gas which is extricated immediately to the morbid part; or by impregnating water with it, compounds may be leaked in the water, and laid frequently over the seat of the disease. Mr. Loefler, a German surgeon, has recommended a particular apparatus for this purpose, which may be easily constructed, and which he employs for saturating water with fixed air, by the mixture of chalk and vitriolic acid, or during the process of fermentation.

When we wish to apply the air to a cancerous breast, for example, we are to fill a bladder with the air as it rises from the above mixture. Then introduce a tube, fixed to its orifice, into another bladder, which is to be cut round in such a manner that it can be applied like an open bag around the breast, and held close to it with the hands. When it is fastened below, it must be united, so that the fixed air may pass out of the fill into the second bladder, and find access to the ulcerated part. In order to facilitate this process, a gentle degree of pressure is to be applied to the bladder; and, as one bladder will not be sufficient, a number of them should be provided in readiness, and filled for immediate use in succession. This operation is to be continued half an hour or longer each time, and repeated twice or thrice a day.

Mr. Wiflock, who has written a German treatise on this subject, and with extraordinary success, recommends us to apply the carbonic acid gas, by means of a receiver or air-bell, connected with a flexible tube or pipe, sufficiently air-tight; but as the vitriolic acid produces too strong a commotion, the gas is extricated for such purposes from a mixture of fixed alkali and vegetable acid.

The medicinal use of fumicious air is a subject which has been diligently considered by Dr. Beddoes, Dr. Thornton, Mr. Hill, Mr. Davy, and some other gentlemen in England; but the enquiry is still in its infancy, and has not been productive of so much public benefit as its zealous friends anticipated. Perhaps the attention of medical men to the local and external influence of gaseous matters, would better repay them for their trouble. Surgeons are not exactly agreed, whether the atmospheric air be hurtful to wounds and internal cavities, merely as air, or as it may be cold, hot, moist, dry, or variously modified. We hope these superficial hints will serve to excite the attention of professional gentlemen to this branch of the healing art. It likewise deserves further enquiry, whether the injection of fluids into the urinary bladder, impregnated with fixed air, &c. &c. be so efficacious, in calculous cases, as some persons have pretended.

From observations on bleeding in rheumatism, and after taking cold, it is evident, the air can enter with all its qualities, and vitiate the whole texture of the blood, and other juices.

From the pustule, vertigo, and other nervous affections caused by damps, mines, &c. it is evident, that air thus qualified can relax and obtrude the whole nervous systen. And from the colics, fluxes, coughs, and consumptions produced by damp, moist, and nitrous air, it is evident it can corrupt and spoil the noble organs, &c. See Atmosphere, and preceding articles.

Air-bags, in Botany, a distended bladder-like seed-vessel, opening on one side, as in the periwinkle, or bladder-sen. It signifies also other kinds of distended air-vessels. See Folliculus.

Air-balans, a name lately given to those aerostatic machines that have been employed in aerial navigation. See Aerostation.

Air-bladder, in Ichthyology, a kind of vesicles, containing elastic air, found in the bodies of fin, by means whereof they are enabled to sustain themselves in any depth of water, and either rise or sink at pleasure.

The air-bladder is the name with what is otherwise called the swim, or swimming-bladder. This membraneous bag lies close to the back-bone, and is furnished with a strong muscular coat, by which it has the power of contraction and dilatation. It is connected with a glacial substance, which contains a quantity of red blood; and some have supposed that the air contained in the swimming-bladder, is derived from this substance. Two processes or appendices issue from its anterior part, and terminate in the funnels; and it is supposed by some writers to be that part which is called the funel.

The discovery of the use of the air-bladder took its rise from observing, that a bubble of air in rising from the bottom of a fluid, continually dilates till it reaches the top, by reason of the continual diminution of the weight, or pressure, of the incumbent water. For the air, in the bladder, is like the bubble, more or less compressed, according to the depth the fish swims at, and rises up less or more space; and consequently the body of the fish, part of whose bulk this bladder is, is greater or less according to the several depths, though it retains the same weight. The rule of hydrostatics is, that a body heavier than so much water as is equal in quantity to the bulk of it, will sink; a body lighter, will swim; a body of equal weight will rest in any part of the water. By which rule, if the fish in the middle region of the water be of equal weight with an equal bulk of the water, the fish will rest there, without any tendency either upwards or downwards; and if the fish be deeper in the water, its bulk becoming less by the compression of the bladder, and yet retaining the same weight; it will sink and rest at the bottom; on the other side, if the fish be higher than the middle region, the air dilating itself, and the bulk of the fish consequently increasing, without any increase of the weight, the fish will rise and rest at the top of the water.

Perhaps the fish by some action can emit air out of the bladder, and afterwards out of its body; and also when there is not enough take in more air, and convey it to this bladder; in which case it will be no wonder, that there should be always a fit proportion of air in the bodies of all fish, to serve their use, according to the depth of water they live in: perhaps also, by some muscle, the fish can contract this bladder beyond the pressure of the weight of water; and perhaps it can by its sides, or some other defence, keep off the pressure of the water, and give the air leave to dilate itself. In these cases, the fish will be helped in all intermediate distanced, and may rise or sink from any region without moving a fin.

If the air-bladder of a fish be pricked or broken, the fish presently sinks to the bottom, unable either to support or raise itself up again. Flat fishes, as sole, plaice, &c. which always lie groveling at the bottom, have no air-bladder.
Dead fishes are found swimming on the surface of the water, because the muscles of the membranous case to act: and their bellies are uppermost, as the back-bone cannot yield, and the dilated lic is protruded into the abdomen, and the back becomes consequently heaviest at its upper part.

In most fishes there is a manifest channel, leading from the pullet or upper orifice of the stomach to the air-bladder, which doublets serves for conveyance air into it. In a Pescatores Mr. Willughby observed, that upon puffing the bladder the stomach presently swelled; so in that fish it seems the air passes freely both ways. Possibly the fish while alive may have a power to raise up this valve, and let out air on occasion.

In a variety of other fishes there are communications with some parts of the alimentary canal, particularly the oesophagus and stomach. The salmon has an opening from the fore-end of the air-bladder into the oesophagus, which is surrounded by a kind of muscular fibres. The herring has a sort of funnel, connecting the bottom of the stomach with the air-bag; by which the air probably comes out from it.

All the fishes of the cartilaginous kind want air-bladders: by what means it is they ascend and descend in water is yet unknown. The cetacous kind, or sea-beasts, are also without the air-bladder: indeed, as these differ little from quadrupeds, but in the want of feet, the air which they receive into their lungs in inspiration, may serve to render their bodies equiponderant to water; and the contraction or dilatation of it, by the help of the diaphragm and muscles of respiration, may possibly assist them to descend, or ascend, in the water, by a light impulse thereof with their fins. Most of the cd-kind have bladders, yet they can hardly raise themselves in the water, by reason of the length and weight of their tails; the air-bladder being near their heads, may help them to lift up their heads and fore part.


There is great diversity in air-bladders, in respect of figure, substance, situation, and connection, in different fish. In some, the air-bladder is divided into two, i.e. gr. in carp; and in others, into three. Needham maintains, that all fish which have teeth in their jaws have only a single air-bladder; whereas those without teeth have a double one; or, which amounts to the same, the air-bladder of these last is divided into two cells. Sig. Redi refutes this dilification; giving instances of fish with teeth, whose air-bladder is double; and of others without teeth, which have only a single air-bladder.

Dr. Priestley conjectures that the air, enclosed in the air-bladder of fishes, serves some further purpose in their economy besides that of enabling them to rise or sink in water. Some fish have no air-bladder, and yet rise or sink without difficulty. That fishes cannot live without air is a well-known fact, established long ago by the experiments of Mr. Haukflee. The fishes he employed were gudgeons, which are lively in the water, and which subsist for a considerable time when taken out of it. Having put three of these into a vessel of water, which had no communication with the external air, and which was designed to resemble a frozen pond, and other three into a vessel of water exhausted of its air; he observed, that in about half an hour the latter manifesterd signs of uneasiness by an unusual motion of their mouth and gills; and the former frequently ascended to the top of the vessel in which they were confined and then sunk down again, without any sensible alteration. After five hours the gudgeons in the vessel exhausted of its air, became less active; and in about three hours more those in the confined air lay at the bottom of the vessel with their bellies upwards, without moving their fins or tail, but indicating life by a motion with their mouths. On uncovering the vessel, they revived in two or three hours, and were perfectly well next morning; at which time those in the vessel purged of its air were also recovered. When this last vessel was put under the receiver of an air-pump, and the air was exhausted, they all died. When the air was exhausted, they remained at the top, but on its readmission, they sunk to the bottom. It is not easy to explain the manner in which fishes are supplied with air, nor the benefit they derive from it; nor are the nature and qualities of the air, contained in their air-bladder, satisfactorily ascertained. Dr. Priestley (Exp. and Obf. relating to Nat. Philos. vol. ii. p. 138), confined minnows, and other small fishes in water without any access of common air, till they died, and upon examining this water, he found that it was somewhat worse than air in which a candle just goes out. Hence he infers, that air contained in water, in an unelastic state, is as necessary to the life of fishes, as air in an elastic state is to that of land-animals. Upon putting fishes into water impregnated with phlogificated air, he found that it was not only injurious, but in process of time fatal to them; although he observes, that fishes, like insects and some other exfangious animals, can live a considerable time without any thing equivalent to respiration. In mentioning some experiments on the state of the air, which is contained in the air-bladder of fishes, he remarks, that when those are taken out of the fish, the air cannot be discharged from them by pressure through any existing aperture, but he was always obliged to cut or burst them. The air itself, obtained from many of them, was not affected by nitrous air; but that of some, particularly of roaches, exhibited slight indications of the effect of this air. Upon the whole it thus appears, that he seldom met with oxygen, and with that only in a small quantity. Fourcroy made experiments on the air contained in the air-veil of the carp, and found that for the most part it was perfectly pure azotic gas, though it sometimes contained a small quantity of carbonic acid gas. From the nature of the fluid he infers, that the air in the bladders of fishes is produced in the stomach. Ann. de Chim. i. 47. Dr. Monroe, in his lectures, led his auditors to conclude, that it was fixed air. But Dr. Brodbelt of Jamaica, collecting a quart of the air from the bladder of a large sword-fish, which, he says, contained of innumerable cells that had no communication with one another, found to his surprise that it was oxygen. A flame was brightened and an ignited stick was rekindled by it; and it was so strong and pure, that the common experiment of a piece of steele wire, heated and put into it, succeeded well, and threw out a most vivid light when melting. This pure air, he supposes, is adapted to serve the purposes of life, when the fish is far below the surface of the water. DuncaM's Ann. of Med. for 1796, p. 393.

The water-snake, in lieu of a bladder, has a large membranous air-bag on its back, which empties and fills with air at pleasure, by an aperture, which it can shut very close, from without inwards, by means of a sort of valve, so that the leaf globule of water cannot enter without its consent. By this artifice it can enlarge or lessen the bulk of its body, and inhabit all depths of the water; though a conjecture has been advanced by Mr. Ray, that it is by the help of water which they take in and let out by two holes in the lower part of their abdomen, near to the ventricle. They sink in the water, by letting in some of it at these holes; the orifices whereof are opened and shut at pleasure, by means of proper muscles. The water being thus received into
into the cavity of their abdomen, serves to make them preponderate the water, and defend; when they would ascend again, a compression is made by the muscles of their abdomen, and the water forced out again, at least so much as suffices to give the degree of levity wanted. Ray's Wild. of God, part ii. p. 346.

Air-bladders, or Air-bags, in Ornithology, are cells or receptacles of air in the bodies of birds, which communicate with the lungs, and which are lodged both among the flinty parts, and in the hollow bones of these animals. Mr. John Hunter, F. R. S. (Philos. Trans, vol. lxiv. part 1. p. 205, &c.) has published some curious observations on this subject, leading to a more particular inquiry into the final cause of this peculiarity in the structure of birds, which had not been sufficiently noticed and examined by anatomists and natural historians. He informs us, that the air-cells, which are found in the soft parts of birds, have no communication with the cavity of the common cellular membrane of the body; some of them communicate immediately with one another; and all of them may be said to have a communication together, by means of the lungs as a common centre. Some of them are placed in larger cavities, such as the abdomen; others are lodged in the interstices of parts, that they would, at first, appear to be the common connecting membrane, as about the breast, axilla, &c. The bones which receive air are of two kinds; some, as the sternum, ribs, and vertebrae, have their internal substance divided into innumerable cells; whilst others, as the os humeri and the os femoris, are hollowed out into one large canal. These bones may be distinguished from those that do not receive air by their less specific gravity; by being less vascular, and consequently whiter, than others; by containing little or no oil; by having no marrow nor bloody pulp substance, even in their cells; by not being, in general, so hard and firm as other bones; and by the ease with which the passage that conveys the air into the bones may be perceived.

The mechanism by which the lungs are adapted for communicating air to the above-mentioned parts consists principally in the attachment of the lungs to the diaphragm and their connection with the ribs and sides of the vertebrae. These adhesions are peculiar to this tribe of animals. For the communication of the air from the lungs to the other parts the diaphragm is perforated with large holes, which open a free passage between the cells of the lungs and the abdomen; and to each of these perforations is annexed a distinct membraneous bag, which is very thin and transparent, and these bags, which receive the air, are extended over the whole abdomen. The lungs open at their anterior part, or towards the sternum, into membranous cells, which lie upon the sides of the pericardium, and communicate with the cells of the sternum. The superior part of the lungs opens into large cells of a loofe net-work, through which the trachea, oesophagus, and large vessels, in their way from and to the heart pass. When these cells are distended with air, the size of the parts where they lie is enlarged, and this dilatation indicates passion, as appears in the turkey-cock, pouting-pigeon, &c. and in the breath of a golde, when it cackles. These cells communicate with others in the axilla, under the large peecoral muscle, &c. and those again with the cavity of the os humeri, by small openings in the hollow surface, near the head of that bone. The posterior edges of the lungs, which lie on the sides of the spine, and project backwards between the ribs, open into the cells of the bodies of the vertebrae, ribs, canal of the medulla spinalis, sacrum, and other bones of the pelvis; and thus the air finds a passage to the cavity of the thigh-bone. This supply of the bones with air is not wholly by means of the cells of the bones of the head, in some birds, are filled with it, as in the eafe of the owl, which has the diapage between the two plates of the scull cellular, and capable of admitting a considerable quantity of air from the Elliphalian tube. Mr. Hunter, in his conjectures concerning the use of these cavities, concluded at last that they were to be considered as appendages to the lungs; and that they answer the same purpose with the two bags that form the lungs of amphibious animals which are continued down through the belly, the upper part of which performs the office of respiration, and the remainder of which is a reservoir of air. In consequence of this communication these animals can breathe less frequently than others; and birds are thus aided in their flight, which must render the frequency of respiration difficult, and a reservoir of air singularly useful. He farther suggests that this construction of the respiratory organs may assist birds in flying; and that the long continuance of the force of a carrier-bird between its breathings may be owing to this cause.

Dr. Latham (Linnaean Transactions, vol. iv. p. 94.) queries, whether this construction may not enable some birds to dive and fly for a considerable time under water. These air vessels, according to Dr. Monro, are of considerable use in two respects. They serve, by dilating the lungs with air, to render the bodies of birds specifically light, and also to flatten the trachea arteria, and thus return the air; and moreover to supply the place of a muscular diaphragm and strong abdominal muscles, and thus to aid the exclusion of the eggs and feces.

Air-chamber, is a name given by Dr. Henfaw to a room contrived for obtaining the benefit of change of air, without going out of the house. According to his whimsical proposal, it is to be twelve feet square, and air-tight, furnished with a very large pair of organ bellows, to or from which air is to be conveyed through the wall by a copper pipe, with valves for opening inwardly and outwardly as occasion shall require. With these bellows, the air in the room is either to be condensed and made heavier, by forcing air in, or lighter and rarer by conveying air out of the room. See his Aero-Chalinos, or Phil. Trans. No 153. See Ventilator and Blowing-Wheel.

Air-gun, or Wind-gun, a machine which serves to explode bullets, and other shot, with great violence, by the expansive force of the air. This fort of implement, charged with air, has an effect scarcely inferior to that of a common firearm charged with gun-power; but it discharges itself with a much less report; and it is this which probably gave occasion to the fable of white gun-power. The first account of an air-gun, that has been noticed, is found in the Elementis d'Artilliere of David Rivaut, who was preceptor to Louis XIII. of France. He ascribes the invention to one Main, a burgler of Lilleux, who presented one to Henry IV.

The common air-gun (Pneumatics, Plate iii. fig. 14.) is made of brass, and has two barrels; the inside barrel K A of a small bore, from which the bullets are shot, and a larger barrel B C D R on the outside of it. In the fock of the gun there is a spring, S M N P, whose rod M draws out to take in air, and piston S N drives the air before it through the valve P into the cavity between the two barrels. The ball K is put down into its place in the small barrel with the rammer, as in another gun. There is another valve at S L, which, being opened by the trigger O, permits the air to come behind the bullet, so as to drive it out with great force. If this valve is opened and shut suddenly, one charge of condensed air may make several discharges of bullets; because only part of the injected air will go out at a time; and a new bullet may be put into the place K; but if the whole air be discharged on a single bullet, the ball
ball will be expelled more forcibly. This discharge is effected by means of a lock $k$ (fig. 15.) placed here as in other guns; for the trigger being pulled, the cock $k$ will go down, and drive a lever $a$, that will open the valve, and let in the air upon the barrel $K$.

An air-gun of the most modern and approved construction is represented in fig. 16. $A$ is the iron gun-barrel, with the lock, stock, ramrod, &c. of about the size and weight of a common fowling-piece. Under the lock at $b$ is a round fixed-tube, with a small movable pin in the inside, which is pushed out by the spring of the lock, when the trigger $a$ is pulled. To this tube, $b$, is screwed a hollow copper-ball, $c$, containing a spring-valve at its aperture; and perfectly air-tight. Each gun has usually two of these balls, which are fully charged with condensed air by means of the condensing syringe $B$, fig. 17. Having screwed down the leaden bullet into the barrel, and screwed the copper ball home to the lock at $b$, let the trigger, $a$, be pulled, and the pin at $b$ will be forcibly and instantly driven out against the valve in the ball, and will thus liberate a portion of the condensed air; which, rushing up through an aperture in the lock into the barrel immediately before the ball, will impel it to the distance of, at least, 60 or 70 yards. By recocking the piece, another discharge may be immediately made, and thus repeated 15 or 16 times, with a very small hissing noise, which at a distance is not audible. The condensed air is forced into the barrel by the following apparatus. The ball, $c$, is screwed to the brass syringe $B$ (fig. 17.) quite close. In this syringe is adapted a moveable piston and iron rod, $a$, at the end of which is a bronze ring, into which is placed a flat iron rod, $k$; upon this rod the feet are firmly placed, and the hands are applied to the wooden handles, $b$, fixed to the syringe. By forcibly moving the barrel $B$, up and down on the rod $a$, the ball, $c$, will become charged with condensed air; and it is easily known when it is filled to the utmost by the irresistible action which the air makes against the piston, when you are working the syringe. At the end of the rod $a$ is usually an eight-square hole, which serves as a key to make the ball fall on the screw, $b$, of the gun, and on the syringe. The piston-rod works air-tight by a collar of leathers on it, is the barrel, $b$; and therefore, when the barrel is pulled up, fresh air will rush in at the hole $b$; when the barrel is pushed down, the air in it can only pass into the barrel at top; the barrel being drawn upwards, the operation is repeated, until the condensation is so strong as to resist the motion of the piston.

Dr. Macbride (Exper. Eff. p. 81.) mentions an improvement of the air-gun by Dr. Ellis, in which the chamber for containing the condensed air is not in the stock, which makes the machine heavy and unWEILY, but has five or six hollow spheres belonging to it, of about three inches diameter, fitted to screw on the lock of the gun. These spheres are contrived with valves for confining the air, which is forced into their cavities, so that a servant can carry them readily charged with condensed air; and thus the gun of this construction is rendered as light and portable as one of the smallest fowling-pieces.

The magazine air-gun is an improvement of the common air-gun, invented by an ingenious artist called L. Colbe. By his contrivance ten bullets are fo lodged in a cavity, near the place of discharge, that they may be drawn into the shooting barrel, and successively shot off quickly, as to be nearly of the same ufe with fo many different guns, the only motion required, when the air has been previously injected, being that of flutting and opening the hammer, and cocking and pulling the trigger. In fig. 18. is exhibited a section of the gun, as large in every part as the gun itself; and so much of its length is shown as is necessary to give a complete idea of the whole. A E E is part of the stock; $G$ is the end of the injection syringe, with its valve, $H$, opening into the cavity, $F F F$, between the barrels. $K$ is the small or floating barrel, which receives the bullets, one at a time, from the magazine, $E D$, which is a serpentine cavity, wherein the bullets, $b l$, &c. are lodged, and closed at the end $D$. The circular part, $S l w k M I$, is the key of a cock, having a cylindrical hole, $I K$, through it, equal to the bore of the small barrel, and forming a part of it in the present situation. When the lock is off, the several parts, $Q R, T S W$, &c. come into view, by means of which the discharge is made, by pulling up the pin, $P w$, which raises and opens a valve, $V$, to let in the air against the barrel, $I$, from the cavity, $F F F$; when valve is immediately shut down again by means of a long spring of brass, $N N$. This valve, $V$, being a conical piece of brass, ground very true in the part which receives it, will of itself be sufficient to confine the air. To make a discharge, pull the trigger, $Z Z$, which throws up the feer, $Y Z$, and disengages it from the notch, $x$; upon which the strong spring, $W W$, moves the tumbler, $T$, to which the cock is fixed. The end, $u$, of this tumbler bears down the end, $v$, of the tumbling lever, $R$, which, by its other end, $m$, pulls the flat end, $l$, of the horizontal lever, $Q$, by which means the pin, $P w$, is pulled up, and opening the valve, $V$, discharges the bullet; all which is evident from a bare view of the figure.

To bring another bullet instantly to succeed $I$, there is a part $H$, called the hammer, represented in figs. 19. and 20. which by a square hole goes upon the square end of the key of the cock, and turns it about so as to place the cylindrical bore of the key $I K$ in any situation required.

Thus, when the bullet is in the gun, the bore of the key coincides with that of the barrel $K K$; but when it is discharged, the hammer $H$ is instantly brought down to shut the pan of the gun; by which motion the bore of the key is turned into the situation $I K$, so as to coincide with the office of the magazine; and upon lifting the gun upright, the ball next the key tumbles into its cavity, and falling behind two small springs, $s r$, fig. 18. is detained. Then opening the hammer again, the ball is brought into its proper place, near the discharging valve, and the bore of the key again coincides with that of the floating barrel. It appears how expeditious a method this is of charging and discharging a gun; and if the force of condensed air was as great as that of gunpowder, such an air-gun would actually answer the end of many guns, and prove the best defence against highwaymen or robbers; because, when there is reason to suspect them, they might then make five or six discharges before the robber can come within pistol-shot.

From the experiments of Mr. Robins, in his New Principles of Gunnery, (See Mathem. Tracts of Robins, by Wilton, vol. i. p. 73.) it appears, that the force of gunpowder, at the moment of its explosion, is 1000 times greater than that of the efficacy of common air; and, therefore, that the latter may produce the same effect with the former, its condensation must be 1000 times greater than that of its natural state. But as the velocities with which equal balls are impelled are directly proportional to the square roots of the forces, the velocity with which an air-gun, containing air condensed only ten times, will project a ball, will be $\frac{1}{5}$th of that arising from gunpowder; and if the air were condensed 20 times, it would communicate a velocity of $\frac{1}{4}$th of that of gunpowder. In the air-gun, however, the reservoir of condensed air is commonly very large, in proportion to the tube which contains
A
tons the ball, and its density will be very little altered by expanding through that narrow tube; consequently the ball will be urged by nearly the same uniform force with that of the jet inflat. whereas the effusive fluid of inflamed gun-powder bears a small proportion to the barrel of the gun, and by diluting from the small portion of it near the but-end into a comparatively large space, its effusive force will be proportionately weakened, and its action on the ball in the barrel will become gradually less and less. Hence it appears, that the air-gun will project its ball with a much greater proportionate degree of velocity than that which is above stated; infomuch that air condensed ten times will produce a velocity not much inferior to that arising from the gun-powder.

However, in this kind of gun, and in all cases which require a very considerable condensation of air, it will be requisite to have the syringe of a small bore, viz. not exceeding half an inch in diameter: because the pressure against every square inch is about 15 pounds, and against every circular inch about 12 pounds. If, therefore, the syringe be one inch in diameter, when one atmosphere is injected, there will be a resistence of 12 pounds against the piston; when two, of 24 pounds; and when ten are injected, there will be a force of 120 pounds to overcome: whereas ten atmospheres act against the circular half inch piston, whose area is but one-fourth part so big, with a force but one-fourth as great, viz. 30 pounds: or 40 atmospheres may be injected with such a syringe as well as ten with the other. Deaguliers's Exp. Phil. vol. ii. p. 308, &c. Martin's Phil. Brit. vol. ii. p. 189, &c. Adams's Lect. on Nat. and Exp. Phil. by Jones, vol. i. p. 133.

Air-jacket, a jacket of leather, furnished with bags or bladders of the same material, inflated with air, and serving to buoy up the perfon who wears it, and to prevent his sinking in water, without any effort of swimming. These bags communicate with each other, and are filled with air by means of a leather pipe, having at the end of it a stop-cock, accurately ground, so as to admit the injected air, and, when closed, to prevent its escape. The jacket must be well moistened with water before the bags are filled: otherwise the air will escape through the pores of the leather.

Air-lamp, a pneumatic machine, formed by the combination of inflammable air and electricity, which, by turning a stop-cock, produces a flame that may be restrained or continued at pleasure. The contrivance of machines of this fort was suggested by the experiments of Mr. Volta, Dr. Ingenhousz, &c. The air-lamp is now constructed in the following manner. A, (Plate iii. Pneumatics, fig. 21.) is a glafs jar for containing the inflammable air; B, an open glafs urn, that contains water, by the pressure of which the air is forced out of the jar A, through the brass-pipe a; C, is the stop-cock, so perforated, that the water may descend from B into A, and the air pass out through the pipe a. By turning the bar of the stop-cock to an horizontal position, the communication between the two vessels is closed, and the passage of the air obstructed: and by turning it into a vertical position, the communication is opened. The lower jar, A, is supplied with inflammable air by means of the bladder, (fig. 22); and two bladders of this kind accompany each lamp. It is used in the following manner: Take off the cover D, from the lamp, and turn the stop-cock upwards; then pour as much clear water into it as will fill the vessel A, up to the pipe a; unfewer this pipe, and in its head screw the small brass piece (fig. 23) and to this screw one of the stop-cocks and bladder, (fig. 22.) With the bladder under one arm, one hand to the cock at C, and the other to that of the bladder, open the apertures and press the bladder at the same time; and thus the air will be forced upon the water in A, and driven up the glass pipe through the tube B, with a bubbling noise. When the vessel, A, is thus charged with air, the stop-cocks are to be turned, so as to cut off the communication with the external air. Care must be taken that the common atmospheric air does not mix with the inflammable; for if a mixture of these airs were fired, the explosion would be great and dangerous.

The apparatus for lighting this lamp is of the electrical kind; and it is as follows. The mahogany box, E, is a sort of box, about 12 inches square, and 5 inches deep; and in this is placed an electrophorus, consisting of a re-nowned cake e, and metallic plate d, which by a hinge at its back, admits of being pulled upwards and let down by the siken flinge a, connected with it and with the stop-cock C. When this cake is once excited, its electrical effect upon the metal plate will be continued for a long time. A metallic chain, G, communicates with a wire and ball e, passing through a glass tube below, in the box over the plate, and above with a fine wire passing through a glass tube. This upper wire is bent to around of an inch distance from the flame-pipe. It is evident that when the electrophorus in the box is previously excited, and the stop-cock, C, turned, the siken flinge b, will raise the metallic plate; and this will give an electric spark to the ball and wire above, which will convey it instantly to the flame-pipe, and inflame the air passing out of the pipe, in consequence of the pressure of the water in its defent into the vessel A. The cock, C, being turned back, the flame ceases; and turned again, appears; and will serve to light a candle, match, &c. whenever it may be thought proper. The number of times in which light may be produced will be very great, and will depend on the quantity of the inflammable air in the vessel A. If the cock is not turned back, the flame will continue till the whole of the inflammable air is consumed. The light thus produced will be sufficient for reading a large print in the night, or seeing the hour by a watch. When the electrophorus is to be excited, the siken flinge, a, is unhooked from the plate, and the apparatus taken out of the box; and the metallic plate is lifted up, whilst, with a siken or dry cat-skin rubber, you briskly rub the surface of the renowed cake. About 20 revolutions in rubbing will be sufficient, so that the plate will give a spark to the knuckle about the distance of an inch; and by the strength of the spark the degree of excitation is to be estimated. The siken flinge and small glass tubes, through which the wire, G, passes, should always be very dry, that the passage of the electrical spark may be quite perfect. The whole length of this apparatus is about 22 inches; but it may be made of any dimensions. Dr. Ingenhousz used a small apparatus, constructed upon a similar principle, in obtaining light for domestic purposes, both when at home and on his travels. Adam's Lectures by Jones, vol. ii. p. 99, &c.

Air-pipes, a contrivance invented by Mr. Sutton, a brewer of London, for clearing the holds of ships and other close places of their foul air. The principle upon which this contrivance is founded is well known. It is no other than the rarefying power of heat, which, by causing a diminution of the density of the air in one place, allows that which is in contact with it to rush in, and to be succeeded by a constant supply from remoter parts, till the air becomes everywhere equally elastic. If a tube, then, be laid in the well, hold, or any other part of a ship, and the upper part of this tube be sufficiently heated

heated
heated to rarefy the impeding column of air, the equilibrium will be maintained by the putrid air from the bottom of the tube, which being thus drawn out, will be succeeded by a supply of fresh air from the other parts of the ship; and by continuing the operation, the air will be changed in all parts of the ship. Upon this principle, Mr. Sutton proposed to purify the bad air of a ship, by means of the fire used for the copper's, or boiling places, with which every ship is provided. Under each copper or boiler there are two holes separated by a grate, one for the fire and the other for the ashes; and there is also a flue, communicating with the fire-place, for the discharge of the fume. The fire, after it is lighted, is preserved by the constant draught of air through these two holes and the flue; and if the two holes are closed, the fire is extinguished. But when these are closed, if another hole, communicating with any other airy place, and also with the fire, be opened, the fire will of course continue to burn. In order to clear the holds of the ships of the bad air, Mr. Sutton proposed to close the two holes above mentioned; viz. the fire-place and ash-place, with substantial iron doors, and to lay a copper or leaden pipe of sufficient size from the hold into the air-place, and thus to supply a draught of air for feeding the fire; a constant discharge of air from the hold will be thus obtained, and fresh air will be supplied down the hatches, and by each other communications as are open into the hold. If other pipes are connected with this principal pipe, communicating either with the wells or lower decks, the air that serves to feed the fire will be drawn from such places.

In large ships, there is not only a copper, but a fire-grate, like those used in kitchens; behind this grate an iron tube might be fixed, and infected quite through the brickwork and through the deck, so that one end of it might stand about a foot, or somewhat more, in the chimney, above the brickwork, and the other made to enter into the hold or any other part of the ship. When the upper end of this tube is heated, the draught of air will be supplied from below, as in the other case. Mr. Sutton's practicable and useful contrivance was much opposed at its first proposal; and though his pipes were recommended by Dr. Mead and Mr. W. Watson, after several trials of their effect, they were very slowly introduced, and in process of time very much neglected. Mr. Sutton, after considerable delay, and with no small difficulty, obtained a patent for his invention.

Mr. Watson recommends the use of these pipes for the circulation of fresh air in houses, prisons, hospitals, wells, &c. And they have undoubtedly this obvious advantage, that by causing the putrid and noxious air to pass into the fire, they not only dilute but destroy it. Phil. Trans. abr. vol. viii. p. 628. 630. Mead's Works, p. 397—437.

For other inventions adapted to the same purpose, see Air-trunks, Bellows, Ship's-lungs, Ventilator, Blowing-wheel, and Wind-fails.

Air-pump, a machine, by means of which the air may be exhausted out of proper vessels.

The use and effect of the air-pump is to make what we popularly call a vacuum; but this, in reality, is only a degree of rarefaction sufficient to suspend the ordinary effects of the atmosphere.

By this machine, therefore, we learn in some measure, what our earth would be without an atmosphere; and how much all vital, generative, nutritive, and alterative powers, depend upon it.

The principle on which the air-pump is constructed, is the elasticity of the air; as that on which the common, or water-pump is founded, is the gravity of the same air.

The structure of the air-pump is, in itself, more simple even than that of the water-pump. The latter supposes two principles, gravity and elasticity likewise: so that the water-pump must first be an air-pump, i.e., it must rarely the air before it can raise the water. In effect, water being a dormant unelastic fluid, needs some external agent to make it ascend; whereas air ascends in virtue of its own elastic activity: its natural tendency is to separate and leave a vacuum; and all that remains for art is to prevent the ambient air from supplying the place of that which thus spontaneously escapes. To make water ascend, the force wherewith it is pressed downwards is either to be diminished or increased in one part more than another; like a balance in equilibrium, one of whose scales may be made to rise, either by diminishing its own weight, or increasing that of the other; the water, therefore, recedes from the common centre of gravity by the very power with which it tends towards it indirectly or secondarily applied; because, two similar centripetal forces being made to act contrary to each other, what in the one over-balances the other must have the effect of a centrifugal force. Whereas, the principle whereby air is rarified or diminished, does not respect the centre of the earth, but the centres of its own particles; being no other than a certain implanted power, whereby they immediately tend to recede from each other.

The invention of this noble instrument, to which the present age is indebted for so many fine discoveries, is ascribed to Otto de Guericke, the celebrated confidant of Magdeburg, who exhibited his first public experiments with it, before the emperor and the empress of Germany; at the breaking up of the imperial diet at Ratibon, in the year 1654; but his description of the instrument, and of the experiments performed with it, is contained in his "Experiments nova Magdeburgica de Vaneo Spatio," and was not published before the year 1672, at Amsterdam.

Dr. Hooke and M. Duhamel, indeed, ascribe the invention of it to Mr. Boyle; but that ingenious author frankly confesses de Guericke to have been beforehand with him. In a letter which he wrote to his nephew, Lord Dungarvan, at Paris, about two years after Schottius's book was published, he introduces the acknowledgment of his obligation, for the discovery of this useful machine, to what he had heard of it, though he had not then perused it, by that well-applied passage of Pliny, "Legumum eft et plenum ingenii pecuris fati per quis profercit." Some attempts, he affirms us, he had made upon the same foundation, before he knew any thing of what had been done abroad; but the information he afterwards received from Schottius's Mechanica Hydraulica Pneumatica, published in 1657, wherein was an account of de Guericke's experiments, first enabled him to bring his design to any thing of maturity. From hence, with the allusion of Dr. Hooke, after two or three unsuccessful trials, arose a new air-pump more easy and manageable than the German one; and hence, or rather from the great variety of experiments that illustrious author applied it to, the engine came to be denominated machine Boyleana, and the vacuum produced by it, vacuum Boyleanum.

Air-pump, structure and use of the. The basic or essential part in the air-pump, is a metallic tube, anfwering to the barrel of a common pump, or syringe; having a valve at the bottom, opening upwards; and a moveable piston or embolus, answering to the sucker of a pump, furnished likewise with a valve opening upwards. The whole must be only fitted to a vessel as a recipient or receiver.

The Bell, resting only circumstances chiefly respecting convenience, have been diversified and improved from time
to time, according to the several views and address of the makers.

In our further account of the air-pump, we shall trace the various alterations it has undergone from the rude and inconvenient construction of Otto de Guericke to its present improved state. Guericke’s machine is exhibited in Plate iv. Pneumatics, fig. 24. It consists of an iron three-legged frame, \( a b c d f \), supporting a round iron plate, \( b c \), in the middle of which is inserted a brass syringe, \( g h \). The upper part of this syringe is furnished with a rim of lead, \( j \), \( \text{(fig. A.)} \); and it is fastened below by means of an iron ring, \( k k \), and three iron arms, \( o o a \), to the legs of the frame. Within the rim \( j \), there is a brass plate \( m n \), \( \text{(fig. B.)} \) encompassed by a ring of leather, and fixed by three screws which terminates upwards in a small tube \( n \), into which the pipe connected with the syringe to be exhausted is fastened, as occasion requires, and to which, on the lower side, is adapted a valve of leather, through which the air passes into the syringe. In this plate there is also another small valve at \( z \), opening upwards, through which it escapes. This plate is covered by a copper vessel, \( x y \), intended for containing water. The piston of the syringe \( s b \), \( \text{(fig. 24, and fig. C.)} \) is connected by a joint at \( t \), with the iron rod \( w t \), which is fastened to the handle, \( w o y z \); and this moves round the pin at \( a o \) by which it is connected with one of the legs of the frame. In order to prevent air from entering into the syringe, a copper vessel of water is suspended by hooks to the arms, \( o o o a \), so that the lower part of the syringe at \( k k \), and the piston, may be always covered with water, when the machine is at work. The receiver, \( L \), is a glass sphere, adapted to a brass cap, \( P P \), which has a pipe with a stop-cock, \( g r \); and this pipe is fitted to the tube, \( n \), above mentioned. From this brief description of the machine, its operation will be easily understood. When the piston, \( s b \), is depressed, the air will be expanded in the syringe, \( g h \), and that of the receiver will descend into it through the valve in the lower surface of the plate, \( m n \); but when the piston is elevated, and the air is compressed, this valve shutting upwards will clothe the passage to the receiver, and make its escape through the valve \( z \), which opens upwards. In order to render the exhaustion more complete, a small exhausting handle is adapted to the plate, which is represented at \( m \). See Guericke’s Exper. Nov. Magdeby. Amlt. 1672. lib. iii. c. iv. and v. p. 77.

This machine, though it might be deemed an excellent contrivance at the time of its invention, when the doctrine of the elasticity and expansion of the air was new, had many defects which it is hardly necessary now to mention. The force necessary for working it was very great, and the progress of its operation very slow. Besides, it was to be wrought under water, and it allowed of little change of subjects for experiments. Mr. Boyle, whose ideas of this machine, first suggested to him by Schottus’s report of Guericke’s construction, were executed by Dr. Hoole, whom he then employed as his operator, removed some of these inconveniences and diminished others.

The form of Mr. Boyle’s air-pump appears in Plate iv. Pneumatics, fig. 25. It consisted of a spherical receiver, \( A \), with a round hole at the top, whose diameter, \( B C \), was about four inches; this was covered with a plate, having a brass rim, \( D E \), which was firmly cemented to the ring of glass that surrounded the hole; and to the tapering orifice of the brass rim was adapted a brass stop-cock, \( F G \), ground so exactly as to exclude as much as possible the admission of air. In the centre of the cover was a hole, \( H I \), of about half an inch in diameter, provided with a socket, to which the brass stop-cock, \( K \), was so fitted as to prevent the entrance of air; and the lower part of this stop-cock was perforated with a hole, through which passed the syringe, \( s, r, t, o \), for the convenience of moving it and fro the subjects of experiments. To the neck of the receiver a stop-cock, \( N \), was fastened; and to the top of the cock, \( X \), a tin-plate, \( M T U W \), was so cemented as to preclude the admission of air. The lower part of this machine consisted of a wooden frame with three legs, \( 1 1 1 \), and a traverse board, \( 2 2 2 \), on which the pump rested. The cylinder of this pump was cast brass; and it was fitted with a stop-cock, \( 4 4 \), \( 5 5 \), of which one part, \( 4 4 \), was covered with shoe- leather, so as exactly to fill the cavity of the cylinder; and to this was fastened the other part, which was a thick and narrow plate of iron, \( 5 5 \), somewhat longer than the cylinder, indented on one edge with narrow teeth, so as to admit the corresponding teeth of a small iron nut, fastened by two staples to the under side of the traverse board, \( 2 2 2 \), on which the cylinder rests; and this is turned to and fro by the handle, \( 7 \). The last part of this cylinder is the valve, \( R \), consisting of a hole bored through at the top of the cylinder, somewhat tapering towards the cavity; into which hole is ground a tapering peg of brass, to be thrust in and taken out at pleasure. In order to prevent more effectually the admission of air, and to prepare the sucker of the pump for motion, a quantity of small oil was poured in at the top of the receiver and also into the cylinder. The operator, having fixed the lower flanks, \( O \), of the stop-cock into the upper orifice of the cylinder, turns the handle, and thus forces the sucker to the top of it, so that no air may be left in its upper part. Then shutting the valve with the plug, and turning the handle the other way, he draws down the sucker to the bottom of the cylinder, and thus its cavity, into which no air is admitted, will be in an exhausted state. By turning the stop-cock, and opening a passage between the cylinder and the receiver, the air contained in the one will descend into the other; and this air being prevented from returning, by turning back the key of the stop-cock, will be made to open the valve and to escape into the external air by forcing the sucker to the top of the cylinder; by alternately moving the sucker upward and downward, turning the key and shutting the valve, as occasion requires, the exhaustion may be continued. See Boyle’s Works, by Birch, vol. i. p. 7-10.

Mr. Boyle has described a second air-pump in the first continuation of his Physico-mechanical experiments. See his works, vol. iii. p. 180. This, like the former, had only one barrel, by which the receiver was exhausted; but it was so contrived as to be every where surrounded with water, that the ingress of air might be more effectually prevented. Besides, the receivers, which were of several forms and sizes, were fastened to an iron plate by means of a soft cement, so that they could be removed and changed at pleasure. The interposition of a moistened leather for fixing them, does not seem at this time to have occurred to him. Notwithstanding all the precautions of Mr. Boyle, and his contrivances for excluding air by oil and leather, he found that the working of his pump by a single barrel was laborious, on account of the prejudice of the atmosphere, a great part of which was to be removed at every elevation of the piston, when the exhaustion was nearly completed: and he himself candidly acknowledges, that it was rarely and with great difficulty, that he was able to produce any great degree of rarefaction. This useful machine was gradually improved by Papin, Mercure, Mariotte, and others; but the introduction of a second barrel and piston was the principal
principal improvement which it received about this period.

To whom this was owing, it is not easy to decide; some
inscribe it to Dr. Hooke, others to Papin, and others
again to Haukbee. An engine of this kind, with a double
tube, is described by Mr. Boyle, in the second continuation
of Phvsiotnieal Mechanical Experiments (works, vol. iv. p. 116);
but the manner of working it, by means of a pulley and
of iron frissars or steadds, upon which the operator stood,
must have been extremely inconvenient. However, by the
use of a second barrel and piston, contrived to rise and fall
alternately with the other, and by the introduction of valves,
which in this third air-pump of Mr. Boyle supplied the
place of the plug and flip-cuck, which he had before used,
as well as by the subsequent improvements of Haukbee,
the pressure of the atmosphere on the descendiug piston al-
ways nearly balanced that of the ascending one; so that the
which worked them up and down was easily moved by a
gentle force with one hand; and the exhaustion was also
made in much less time. See Haukbee's Physico-Mech-
anical Experiments, p. 1, &c. Mr. Vrcam, a pneumatic
operator, employed by Dufagglers, made an improvement
in Haukbee's air-pump, by reducing the alternate motion of
the hand and winch to a circular one. In his method the
winch is turned quite round, and yet the pistons are alter-
nately raised and depressed; by which the trouble of shift-
ning the hand backwards and forwards, as well as the loss of
and the shaking of the pump, are prevented. See
Dufagglers's Course of Exp. Philof. vol. ii. p. 378. For
a brief account of the progressive improvements of the
air-pump, see Cotes's Hydrostatical and Pneumatical Lec-
tures, lect. xii. p. 156, &c.

The structure of the air-pump, thus improved, is repre-
ented in Plate v. Pneumatics, fig. 33. It consists of two
braeus barrels or cylinders, a, a, which communicate with
each other by the ciftern, d d, and with the receiver, 0000,
which is ground level at the bottom, and let over a hole in
the plate, by means of the heat pipe, 6 b. In these barrels
the pistons, which are fastened to tight that no air can get
between them and the barrels, are worked by a toothed
wheel, turned by the handle, b b; and thus the racks, c c,
with their pistons, are worked alternately up and down.
The gage tube, */, is immered in a bafon of quicksilver, m,
at the bottom, and communicates with the receiver at the
top; from which it may be occasionally dendifgared by turn-
ing a cock; and a is another cock, by turning of which the air
is again let into the exhausted receiver, passing into it with
a bililing noise. The action of the toothed wheel and pi-
tons is represented in fig. 34.

As the handle is turned backwards, it raises the piston d e,
in the barrel B K, by means of the wheel E, and rack
D d: and as no air can get between the piston and barrel,
all the air above d is lifted up towards B, and a vacuum is
made in the barrel from e to b: upon which part of the air
in the receiver by its spring rushes through the hole in the
braus plate of the pump along the pipe G G, communicating
with both barres by the hollow trunk H K, and push-
ing up the valve b, enters into the vacant part b s, of the
barrel B K. Then, as the handle F is turned forward, the
piston e f, will be depreed in the barrel; and the air
which had got into the barrel, finding no way of escape
through the closed valve b, will ascend through a hole in
the piston, and make its way into the external air through a
valve at d: and it will be prevented by that valve from
returning into the barrel, when the piston is again raised.
At the next elevation of the piston, a vacuum is again made
in the same manner as before, between b and c: upon which
more of the air that was left in the receiver will get out by
its spring, and flow into the barrel, B K, through the
valve b. The other piston and barrel act in the same man-
er; and as the handle, F, is turned backwards and for-
wards, it alternately raises and depresses the pistons in their
barrels; one being raised whilst the other is depressed. By
thus repeating the operation again and again, the air in the
receiver is at length rarefied to such a degree, that its den-
sity does not exceed the thin air remaining in the barrel when
the piston is raised: which done, the effect of the air-pump
is at an end; the valve cannot now be opened, or if it
could, no air would pass it; there being a just equilibrium
between the air on each side.

To judge of the degree of exhaustion, there is added the
gage-tube, 17, open at both ends, and about 32 inches
long (fig. 33), affixed to a wooden ruler, which is divided
into inches and parts of an inch, from the bottom where it
is even with the quicksilver in the bafon, m, and continued
to the top, a little below the plate of the air-pump, to 30
or 31 inches. Hence the air in the tube rarefying as fast
as that in the receiver, in proportion as the exhaustion ad-
vances, the mercury will be raised by the preasure of the
column of external air, prevailing over that of the column
of air included; till the column of air, and mercury to-
gether, become a balance to that of the external air. When
the mercury is thus rifen to the same height as it stands
in the barometer, which is indicated by the scale of inches
added to the gage, the instrument is a jut Torricellian
tube; and the vacuum may be concluded to be as perfect
as that in the upper end of the barometer. When the
cock, a, is turned, fo as to make a communication with the
external air; this rushes in, and the mercury in the gage
immediately subsides into the bafon. See GAGI.

In estimating the gradual ascent of the quicksilver in the
gage, it is evident that, as we continue to pump, the
mercury continues to ascend; and that it approaches always
more and more to the standard altitude, or about 29 3/4 inches,
more or less according to the variety of seasons. And it is
easy to prove, that the defect of the height of the quick-
silver in the gage from the standard altitude is always pro-
portional to the quantity of air which remains in the re-
ceiver; that the altitude itself of the quicksilver in the gage
is proportional to the quantity of air which has been
exhausted from the receiver; and that the ascent of the
quicksilver, upon every turn of the pump, is proportion-
able to the quantity evacuated by each turn. Let it
be considered, that the whole preasure of the atmos-
phere upon the ciftern of the gage is equal to, and may be
balanced by, a column of quicksilver of the standard alti-
dute; consequently, when the quicksilver in the gage has
not yet arrived to the standard altitude, the defect must be
supplied by some other equal force; and that force is the
capitative power of the air remaining in the receiver; which
communicating with the upper part of the gage, hinders
the quicksilver from ascending, as it would otherwise do,
to the standard altitude. The capillarity of the air in the
receiver is then equivalent to the weight of the deficient
quicksilver; but the weight of this is proportionable to the
space it should occupy; or to the defect of the height of the
quicksilver in the gage from the standard height; therefore
the capillarity of the remaining air is also proportionable
to the same defect. But the density of any portion of air is
proportionable to its capillarity, and the quantity in this case
is proportionable to the density; and therefore the quantity
of air remaining in the receiver is proportionable to the defect
of the quicksilver in the gage from its standard altitude.

Hence
Hence it follows, that the quantity of air which was at first in the receiver before you began to pump, is proportional to the whole standard altitude; and conversely the difference of this air, which was at first in the receiver, and that which remains after any certain number of turns, that is, the quantity of air exhausted, is proportional to the difference of the standard altitude and the before-mentioned defect, that is, to the altitude of the quicksilver in the gage after that number of turns. Hence again it appears, that the quantity of air exhausted at every turn of the pump is proportional to the ascent of the quicksilver upon each turn. See Cotes's Hydrost. and Pneum. Lectures, lett. 13. See Gage.

There are several inconveniences attending air-pumps of the common form, though much improved from what they used to be formerly, and many attempts have been made to remedy them. It is a well-known fact, that pumps merely serve to rarefy the air to a considerable degree, and that none of them can produce a complete exhaustion; as the mercury in the gage is not raised by any of them to the height which it occupies in the Torricellian tube, when well purged of air. Few pumps will bring it within 1/4 of an inch. Hankfhee's, fitted up according to his own instructions, will seldom bring it within 1/4; pumps with cocks of the best construction, and in the most favourable circumstances, will bring it within 1/8; but none with valves fitted up with wet leather, or to any part of which water or any volatile fluids have access, will bring it nearer than 1/4.

Before we proceed to give an abridged account of the improvements that have been made in air-pumps, we observe, that the air-pumps most commonly used are made either with brass stop-cocks, or with valves of oilskin or of leather, for preventing the return of the air into the receivers, out of which it had been exhausted. Pumps with stop-cocks, when well made and newly put together, are generally found to rarefy the air to a greater degree than those which are made with valves; but after having been used for some time, they become less accurate than those with valves. But the valves are also imperfect; as the external air, piercing upon that in the piston, prevents its rising, when the elastic force of the air in the receivers, under exhaustion, is much diminished. Attempts have been made, particularly by the abbé Nollet and Mr. Gravesande, to perfect the construction of cocks. In Gravesande's double-barrelled pump, the cocks at the bottom of the pistons are turned by an apparatus that is moved by the handle of the pump; the piston has no valve, and the rod is connected with it by a flirrup, as in a common pump. This rod has a cylindrical part, which passes through the flirrup, and moves flexibly in it through the space of about half an inch, between a shoulder above and a nut below. The flirrup supports a round plate, which has a short square tube, that fits tight into the hole of a piece of cork, and which has also a square Shank, that goes into the square tube. Between the plate and the cork is put a piece of thin leather, soaked in oil, and another is placed between the cork and the plate which forms the hole of the flirrup. When the winch is turned to raise the piston from the bottom of the barrel, the friction of the piston against the barrel keeps it in its place, and the rod is drawn up through the flirrup. The wheel has thus liberty to turn about an inch; and this is sufficient to turn the cock, so as to shut off the communication with the external air, and to open that with the receiver. When this is done, the continued motion serves to raise up the piston to the top of the barrel. When the winch is turned in the opposite direction, the piston remains fixed till the cock is turned, so as to shut the communication with the receiver; and open that with the external air. The cock has one perforation diametrically through it, and another in a perpendicular direction to this; and after reaching the centre, it passes along the axis of the cock, and communicates with the open air. By this communication, when it is opened, the air rushes in, and balances the prelure on the upper side of the piston in this barrel, so that the pressure on the other must be counteracted by the person who works the pump.

In order to obviate this inconvenience, Gravesande put a valve on the orifice of the cock, by tying over it a flip of wet bladder or oiled leather; and by means of this the piston is pressed down, as long as the air in the barrel is rarer than the outward air, just as if the valve was in the piston itself. Gravesande, and also Mushenbrock, extol the operation of this pump, as exceeding that of pumps with valves. But it is evident that no precise estimate of its performance can be obtained, whilst the pistons, valves, and leathers of the pump are prepared by steeping them in oil, and afterwards in a mixture of water and spirits of wine. With this preparation the gage could not be brought within 1/4 of an inch of the barometer. Besides, a considerable space is left between the piston and cock, from which the air is never expelled; and if this be made very small, the pump must be worked very slowly; otherwise the air will not have time to diffuse itself from the receiver into the barrel, especially when the expelling force or the elasticity of the air, towards the close of the operation, is very small. The rarefaction will likewise be retarded by the valve, which will not open till the air below the piston is considerably denser than the external air. The cocks in pumps of this kind are subject to become loose by use, and to admit air; an inconvenience which might, indeed, be prevented by placing the barrels in a dish filled with oil. For a figure and description of Gravesande's pump, see Gravesande's Mathem. Elem. of Natural Philosophy, by Desaguliers, vol. ii. p. 14. These pumps, if they were ever used in England, have been long superseded by the cheaper and more simple contrivance of valves, formed by tying a flirup of bladder over a small hole, through which the air is allowed to pass in one direction only.

In the year 1750, the ingenious Mr. Smeaton directed his attention to the improvement of valve pumps. In considering the structure of these pumps, he observed, that the principal causes of their imperfection are, partly the difficulty of opening the valves at the bottom of the barrels, and, partly, the piston's not fitting exactly, when put down to the bottom, which leaves a lodgment of air that is of bad effect. The first of these imperfections is owing to the smallness of the common valves, which are made of a piece of thin bladder stretched over a hole generally much less than 1/4 of an inch in diameter, and to the adhesion of the bladder to the plate upon which it is spread, by reason of the oil or water with which it is moistened; as the rarefaction of the air in the receiver is continued by the operation of the pump, its rising becomes slow, that it is not able to overcome the cohesion of the bladder to the plate, the weight of the bladder, and the resistance occasioned by its being stretched. The larger the hole is, over which the bladder is laid, a proportionably greater force is exerted upon it by the included air in order to lift it up; and yet the aperture of the hole cannot be made very large, because the pressure of the incumbent air would either burst the valve, or so far force it down into the cavity as to prevent its lying flat and close upon the plate. In order to avoid these inconveniences, instead of one hole, Mr. Smeaton makes use of seven, all of equal size
face and shape, one being in the centre, and the other fix
round it, so that the valve is supported at proper distances
by a kind of grating, formed by the solid parts between
these holes, and resembling a honeycomb; and that the points
of contact between the bladder and grating may be as few
as possible, the holes are hexagonal, and the partitions are
filed almost to an edge. The breadth of these hexagons is
4ths of an inch, and consequently the surface nine times
larger than common; and as the circumference is
three times greater than that of the common valve, and the cohesion
to be overcome is, in the first moment of the air's exerting
its force, proportional to the circumference of the hole, the
valve over any of these holes will be raised with three times
more ease. Besides, the raising of the valve over the centre-hole
is aided on all sides by those that are placed round it; and
as they all contribute as much to raise the bladder over the
centre hole, as the air immediately acting under it, the
valve will be raised with double the ease already sup posed,
or with a fifth part of the force commonly necessary. After
the bladder begins to rise, it will expose a greater surface to
the air underneath, which will cause it to move more easily.

The other defect in the common construction would fill
hinder the rarefaction from being carried on beyond a certain
degree. For as the piston does not fit so closely to the
bottom of the barrel, as totally to exclude the air, this air,
as the piston rises, will expand itself; and precluding upon the
valves in proportion to its density, hinder the air within the
receiver from coming out. Hence, if the vacancy were equal
to the 150th part of the capacity of the whole barrel, no air
could pass out of the receiver, when expanded 150 times,
though the piston was conjointly drawn to the top; because
the air in the receiver would be in equilibrium with that in
the barrel, when in its most expanded state. In order to obviate
this inconvenience, Mr. Smeaton fitted up the top of the
barrel with a plate, having in the middle a collar of leathers,
through which the cylindrical rod works that carries the
piston. The external air is thus prevented from preffing
upon the piston; but for the discharge of the air that passes
from below through the valve of the piston, there is a valve
applied to the plate at the top, which opens upwards. By
this construction, when the piston is put down to the bottom
of the cylinder, the air under it will evacuate itself so much
the more, as the valve of the piston opens more easily, when
preffed by the rarefied air above it, than when preffed by
the whole weight of the atmosphere; and as the piston may
be made to fit as nearly to the top of the cylinder as it can
to the bottom, the air may be rarefied as much above the
piston, as it could before have been in the receiver. Hence
it follows, that the air may now be rarefied in the receiver
in duplicate proportion of what it could be upon the
common principle. By this contrivance, the pump, confiding
of a single barrel, may be worked with more ease than the
common pump with two barrels, because the preffure of the
outward air is taken off by the upper plate; and when a
considerable degree of rarefaction is desired, it will produce
it more speedily.

Mr. Smeaton has also contrived a new gage, which mea-
sures the expansion with certainty, to much less than the
100th part of the whole. It consists of a bulb of glasss,
in shape resembling a pear, and sufficient to hold about half
a pound of quicksilver. It is open at one end, and the
other is a tube hermetically sealed at top. A scale divided
into parts of about 4ths of an inch each, and answering to
a 100th part of the whole capacity, is annexed to it. This
gage, during the exhaustion of the receiver, is supffended in
it by a flip-wire. When the pump is worked as much as is
thought necessary, the gage is pushed down, till the open
end is immerged in a cistern of quicksilver placed under-
neath. The air being then let in, the quicksilver will
be driven into the gage, till the air remaining in it be-
comes of the same density with the external; and as the air
always takes the highest place, the tube being uppermost,
the expansion will be determined by the number of divisions
occupied by the air at the top. See Gage.

This ingenious artifit has succeeded so well in his con-
struction of the air-pump, as to be able to rarefy air about 1000
times; whereas the best of the common air-pumps, esteemed
good in their kind, and in complete order, never rarefied it
above 140 times. Mr. Smeeart's air-pump acts also as a
condensing engine, by the very simple apparatus of turning a
cock; see Condenser. This air-pump is thus easily made
an universal engine, for shewing any effect arising from an
alteration in the density of air or spring of the air; and with
a little addition may be made to shew the experiments of the
415—423.

A perspective view of the principal parts of this pump
is exhibited in Plate vi. Pneumatics, fig. 45. A is the
barrel, B the ciffer, in which is included the cock, with
several joints, which are covered with water to keep them
air-tight; and a little cock to let the water out of the ciffer
is marked G. C is the triangular handle of the key of
the cock, which, by the marks on its arms, shews how it
must be turned, that the pump may produce the effect de-
fired. D H is the pipe of communication between the
cock and the receiver. E is the pipe that communicates
between the cock and the valve, on the upper plate of the
barrel. F is the upper plate of the pump which contains
the collar of leathers, and V is the valve, which is covered
by the piece F. G I is the syphon-gage, which is screwed
on and off, and adapted to different purposes. It consists
of a glass-tube hermetically sealed at e, and furnished
with quicksilver in each leg, which, before the pump begins
or work, lies level in the line a b; the space b e being
filled with air of the common density. When the pump exhausts,
the air in b e expands, and the quicksilver in the opposite
leg rises, till it becomes a counterbalance to it. Its rise
is shewn upon the scale I, by which the expansion of the
air in the receiver may be nearly estimated. When the pump
condenses, the quicksilver rises in the other leg, and the
degree may be nearly judged of by the contraction of the
air in b e; marks being placed at ½ and ¼ of the length
of b e from e, which shew when the receiver contains double
or treble its common quantity. K L is a screw-frame to
hold down the receiver in condensing experiments, which
takes off at pleasure, and is sufficient to hold down a re-
ceiver, the diameter of whole base is seven inches, when
charged with a treble atmosphere; in which case it acts with
a force of about 1200 pounds against the screw-frame. M
is a screw that fastens a bolt, which slides up and down in
that leg, by means of which the machine is made to stand
fast on uneven ground. The structure, connection, and re-
lative uses of the several parts of this pump will be further
perceived in the following account of Smeaton's air-pump,
constructed and improved by Mr. Nairne.

A perspective view of it appears in Plate vi. Pneu-
matics, fig. 46. A, A, are the two barrels of a simple
double-barrelled air-pump; the tube q q conveys the air
from the receiver placed in the pump-plate T, and the cock
Q serves to cut off the communication between the receiver
and the barrels A, A, when the exhaustion is completed.
In the front of the pedetall Z is a screw, serving to admit
air into the barrels, that the valves may not be preffed after
the cock Q is turned; the button i readmits air into the
receiver.
receiver; the syphon-gage y is made in the usual manner; but the cisterns x, x, prevent the gages from being dirtied by the oil, on the readmission of the air. The large barrel C has a solid plunger, worked by the rod R, which paffes through the collar of leathers u; for the construction of which, as well as the internal structure of the barrel C, see fig. 47.

This is a verticall section of the barrel, &c.; the top or cup U screws on to the screw u, and the cavity b is made conical; the holes e, e, are made just large enough to let the piston rod pass freely; the cavity b is filled with circular greased leathers, through the center of which a hole is made, that barely admits the piston rod to pass; these leathers are crowded into b, and three or four thicknesses of them are left above the surface, f; and consequently, when the cup U is screwed down, these leathers are forced into the smaller part of the conical hollow b; and therefore they bind as much or as little as is requisite on the piston rod. The head a is covered with eight screws on the upper flange or part of the barrel C; the bottom B screws on the lower flange or lower end of C; the plug D is accurately ground into a conical hole in the bottom B and has the lever L standing at right angles. As the whole nicety of the exhaustion of this air-pump depends upon this part, it should be very particularly described. The lever L is represented as standing to the left hand; and the hole 2 with its valve 1 is seen in connection with the pipe P, and consequently with the receiver; see the horizontal section L D P. But if the lever L is brought towards the word "closed," the hole 2 with its valve 1 has moved onwards towards D; no hole is opposite to the hole of P, and consequently all communication between the receiver and the inside of the barrel C is cut off; but upon moving the lever L more towards the right hand, the hole 3 having "no valve" will be in connection with P, and consequently there will be a direct or uninterrupted passage between the receiver and the inside of the barrel C. Upon attentively inspecting the fiction, it will be perceived by the directions in which the valves open and close, and the position of the passages which are drilled through the thickness of the barrel, that the ascent or descent of the solid plunger N exhausts the pipe P, and consequently the receiver.

I must be remarked, that the valves exhibited in the fiction are drawn like lids of boxes, with joints for the purpose of shewing in what direction they open; but in reality the valves are made of oiled silk; and as on the nice construction of these the good action of the pump much depends, the best mode of making them will be illustrated in the fiction, fig. A A, which shews the plug D, on which the valve is to be fixed. In the first place, a groove must be turned, of a convenient size, so as to leave a cylinrical knob F, whose diameter may be four or five eighths, or more, of an inch; the hole which the oiled silk valve is intended to cover, is made through the axis or center of this knob, as is shewn by the dotted lines H; the ring G is to fit nicely into the groove, and to be fluid with the general surface of the knops: the surface of the knob F must be turned away about double the thickness of the oiled silk for the purpose of preventing the oiled silk from injury by the piston's striking it; a flip of oiled silk about the width of four times the diameter of the hole, which it is to cover, must be laid over the hole in the center of the knob F, and the ring G carefully put in its place and there fixed by two or three screws. Fig. B B shews the construction of the reeniron x x, (fig. 46.), for the purpose of keeping the gages clear. The end of the gage G, for instance, passes through the bottom of the reeniron x, and reaches nearly to the top; and a piece of metal, flat, or like an inverted tea-saucer, is fixed to the top of x, fig. B B. The oil which comes from the pump through m is thrown on the back of the saucer, and running to its edges drops into the bottom part of the reeniron, and thus prevents any filth from getting into the tube G, fig. 46.

Having described the particular parts of this pump, we shall now explain the mode of working it, so as to obtain the greatest degree of exhaustion. A receiver well ground and made dry, with oil put upon its edge, is to be placed on the pump plate T, (fig. 46.), over the aperture of the pipe P; and the lever L is to be moved so as to stand under the word "valve." By working the piston of the cylinder C up and down, from the top to the bottom, the receiver becomes partly exhausted, and the mercury will rise from the cistern M up into the tube of the barometer gage G; the exhaustion must be continued till it will rise no higher; and turning the lever L under the word "closed," the piston must be moved two or three times up and down; let it then be left at the bottom of the barrel C; move the lever L under the words "no valve," and gently raise the piston to the top of the barrel. As there is now a direct communication between the receiver and the barrel C, without the intervention of a valve, the air will expand itself freely into the barrel, and the mercury of the gage will rise; keeping the piston at the top of the barrel, turn the lever again under the word "closed," and repeat the operation as before; unscree the receptacle for dirty oil O, and screw in its place the complete small exhausting syringe S; work this a few times, and repeat the operation with the barrel and the lever L as before, till the mercury will rise no higher in the gage.

By the processes now described, the exhaustion has been made so perfect, that when an open cistern barometer, suspended in the room, has been on the rife, the mercury in the gage G has risen within \( \frac{1}{4} \) th of an inch as high.

The double-barrelled air-pump A A being placed on the flame B, and having a communication with the pump plate T, as well as the improved pump C, is intended for exhausting large receivers very expeditiously; as both pumps may be worked at the same time; and more especially for preventing the improved pump from being used for trifling experiments, or those where water is made use of. In the pump plate T are two holes, situated near each other, one communicating with the double-barrelled, and the other with the improved pump, and serving the purpose of cutting off the communication of either with the receiver at pleasure. Indeed, when the double-barrelled pump is only used, the hole of the pipe P, leading to the barrel C, should always be carefully stopped to prevent moisture of any kind from getting into it.

Since the time of Mr. Smeaton the air-pump has received very material improvements; for which we are indebted to the Rev. Mr. Prince, of Salem, in North-America; and to Mr. Cuthbertson, late of Amsterdam, and since settled in London.

Mr. Smeaton's success in facilitating the opening of the valves, at the bottom of the barrel and in the piston, led Mr. Prince to conceive, that if these valves were entirely removed, and the remaining air in the barrel could be more perfectly expelled, the rarefaction might be carried still farther. Upon this plan he constructed his air-pump. He removed the lower valve, and opened the bottom of the barrel into a cistern on which it was placed, and which had a free communication with the receiver; for the valve on the upper plate, at the top of the barrel, constructed like Mr. Smeaton's, made it unnecessary that there should be any at the bottom, in order to rarefy the air in the receiver. The cistern was made deep enough to admit of the piston's descending into it below the bottom of the barrel. If the piston be solid, that is, without a valve, when it enters the
barrel and rises to the top-plate, which is made air-tight with a collar of leathers, like Smeaton's, it forces out all the air above it; and as the air cannot return into the barrel on account of the valve in the top-plate, when the piston descends, there will be a vacuum between it and the plate; everything being supposed perfect. But in working the pump, the piston is not allowed to descend entirely into the cylinder to far as to leave the bottom of the barrel open; but it descends below a hole in the side of the barrel near the bottom, which opens a free communication between the barrel, cillern and receiver. Through this hole the air rushes from the cylinder into the exhausted barrel, when the piston has dropped below it; and by its next ascent this air is forced out as the other was before. If the capacity of the receiver, cylinder, pipe, &c. below the bottom of the barrel, taken together, be equal to the capacity of the barrel, half the remaining air will be expelled by every stroke. But as the working of this pump with a solid piston would be laborious, on account of the resistance it would meet with in its descent from the air beneath, though it would be effaced by every stroke as the air became more rarefied, Mr. Prince pierced three holes in the piston at equal distances from each other, and by a circular piece of bladder, tied over the top of the piston, formed a kind of valves over the holes, which opened with sufficient ease to prevent any labour in working the pump, by allowing the air to pass through the piston in its descent. The escape of the air does not, however, depend upon a passage through the piston into the barrel; for when the air, weakened by rarefaction, cannot open this valve, it will still get into the barrel when the communication is opened by the hole at the bottom. This piston will therefore descend as easily as any other, nor will the valves impede the rarefaction. By this construction the valves, made to open with more ease by Mr. Smeaton, are rendered unnecessary for rarefying the air; and that at the bottom of the barrel is entirely removed; the valve on the top-plate being the only one necessary in rarefying the air.

Having set aside the valves, which partly prevented the air from entering the barrel above the piston, Mr. Prince's next attempt was to expel the air more perfectly out of the barrel than Mr. Smeaton had done, by making a better vacuum between the piston and the top plate, so that more of the air might be allowed to expand itself into the barrel from the receiver. Mr. Prince also contrived to connect the valves on the top plate with the receiver occasionally by means of a pipe and cock, by the turning of which the machine might be made to exhaust or condense at pleasure. In order to remove the pressure of the atmosphere from the valve on the top plate, so that this valve might open as easily as the piston valve, he connected with the duct on the bottom piece, which conveys the air from the valve to the cock, a small pump of the same construction as the large one; having the barrel opening into the cylinder, the piston rod, which is solid, moving through a collar of leathers, and a valve near the top, through which the air is forced into the atmosphere. This pump with one barrel is called the valve-pump; its chief use being to rarify the air above the valves, or to remove the weight of the atmosphere from them. When this valve pump is used, the passage through the cock is shut up; and, therefore, instead of placing three ducts at equal distances round the cock in the manner of Mr. Smeaton's, Mr. Prince divided the whole into five equal parts, leaving the distance of one-fifth part between the ducts leading from the cylinder and the valves to the cock, and two-fifths between each of these and the one leading from the cock to the receiver. By this adjustment, when the communication is open between the receiver and the valves for condensation, the other hole through the cock opens the cillern to the atmosphere; but when the communication is made between the cillerns and the receiver for exhaustion, a solid part of the key comes against the duct leading to the valve, and shuts it up, and the air which is forced out of the barrel passes through the atmosphere into the valve-pump; for the valve of the small pump may be kept open while the great one is worked.

Upon this construction, the pump with two barrels may be made like the common pumps, which cannot be conveniently done where the lower valve is retained. In this pump the pilgrons do not move the whole length of the barrels; an horizontal section being made in them a little more than half way from the bottom, where the top-plates are inserted. The pump is thus made more convenient and simple, as the head of it is brought down upon the top of the barrels in the same manner as in the common air-pump. The barrels also stand upon the same plane with the receiver plate, and this plane is raised high enough to admit the common gage of 32 or 33 inches to stand under it, without inconvenience in working the pump: as the winch moves through a left portion of an arch at each stroke than it would do if the pilgrons moved through the whole length of the barrels.

A gage for measuring the degree of condensation having a free communication with the valves, cock, &c. is placed between the barrels in this pump; and the gage is so constructed that it will also serve to measure the rarefaction above the valves when the air is worked off by the valve-pump. It consists of a pedestal, the die of which is made of glass, which forms a cillern for the mercury, a hollow brass pillar, and glasses tube hermetically sealed at one end, which moves up and down in the pillar through a collar of leathers. When the pump is used as a condenser, the degree of condensation is shown by a scale marked on one edge of the pillar: when it is used as an exhaust, the degree of rarefaction of the air above the valves is shown by a scale on the other edge of the pillar. This gage will also shew, when the valves have done playing, either with the weight of the atmosphere on them, or taken off, in the manner which the author has described. The degree of condensation may be also measured by the number of strokes of the winch. For the purposes of great condensation, Mr. Prince has fitted a condenser of a smaller bore than the barrel of the great pump to the cillern of the valve-pump, to be screwed on occasionally. Or, without this condenser, the valve-pump may be adapted to the purpose by being made a little larger, and by having a plate made to screw into the bottom of the cylinder, with a valve on it opening into the cillern: a hole must be made to be opened on the same occasion near the top of the cylinder, to let air in below the pillow when this is drawn up above it. The common gage, which is generally placed under the receiver-plate, is placed in the front of this pump, that it may be seen by the person who works it, and that the plate may be left free for other uses. The plate is fixed to the pipe leading to the cock, that it may be taken off at pleasure, and nailed as a transfer; and it may also serve for other purposes.

The head of this pump is made whole, except a small piece on the back, where the wheel is let in; and the wheel is freed from the piston-rods by pushing it into the back part of the head, and it is kept in its place by a button screwed into the socket of the axis behind. By this apparatus the piston-rods are dilated from the wheel, and let down into the cillerns, when the pump is not used; and in these cillerns they may also have the advantage of being covered with oil. The principal joints of this pump are sunk into sockets, that the
the leather; which clothe them may be covered with oil to prevent leaking. The lower part of the pump is fitted with drawers to contain the necessary apparatus.

A perspective view of a double-barrelled pump, made by Mr. Jones, according to the construction of Mr. Prince, may be seen in Plate vii. Pneumatick, fig. 48. A, A, are two brass barrels in which the pistons move; the barrels communicate with the receiver placed on the pump by means of the pipe B C, and canal D E; the rods of the pistons are seen at F, G; each of these is connected with a rack or piece having teeth on one side. At I there is a wheel, whose teeth are laid hold of by those of the rack; so that by turning the handle H the pistons are alternately raised or depressed, and the air is exhausted out of the receiver K, the tube B C, and the canal D E, which communicate with one another. At the top of each barrel is a plate, on which is a box n, containing a collar of leathers; through this the cylindrical part of the piston rod moves, air-tight; o o is the place of the valve on the top plate, into which a pipe is soldered that conveys the air from the valves to the duct, passing under the valve-pump P, which is designed for preventing the preëmption of the atmosphere from acting on the valve of the top plate. Q is the piston rod of this pump, and R the handle by which it is worked. Y is a cock to cut off occasionally the communication between the receiver and the working parts of the pump. At S is a screw, which cloths the orifice of the canal D E, by unscrewing which the air may be admitted when required. Z is an oil-vessel for receiving the oil driven over by the action of the pump; and there should be always a small quantity of oil in the cups of the boxes m, n, that hold the collar of leathers through which the piston rods move; a b c is the barometer-gage; d e is the box or cistern containing the mercury; and there is a divided box-scale affixed to the tube, for ascertaining the rise or fall of the mercury; a small ivory tube encompasses the lower end of the glass tube, and floats upon the quicksilver in the cistern; the upper end of this is always to be brought to coincide with the lower division of the box scale, by means of the screw under the cistern; and when its coincides, the divisions on the scale give the true distance from the surface of the mercury in the halsam. The key serves for tightening or loosening the screws of the pump. When either piston is down, in the operation of this pump, there is a free communication from the receiver through the tubes and the canal to the part of the barrel above the piston; when the piston rises, it forces out the air above it through the valve in the top plate; and as this valve prevents the air from returning into the barrel, when the piston descends, a vacuum is formed between it and the under surface of the top plate; as soon, therefore, as the piston has descended below the holes communicating, by the tubes and pipe, with the receiver, the air rushes into the exhausted barrel; on the next ascent of the piston, this air is forced out as before. To prevent the piston from meeting any resistance in its descent, there is a valve in it through which the air passes as the piston descends; but the air does not necessarily depend upon a passage through the piston in order to get into the barrel. By these means the piston descends as easily as in any other construction, while the valve in it does not impede the rarefaction. The valve pump P is, as we have observed, used for taking off the preëmption of the atmosphere from the valve on the top plate of the pump, and for forming a more perfect vacuum between this plate and the piston, that nothing may prevent this instrument from exhausting as far as its expansive power will admit. The barometer gage a b c, serving to measure the exhaustion of the receiver, consists of a tube, divided by an annexed scale of inches and fractional parts of an inch, whose higher orifice communicates with the receiver, and the lower is immersed in a column of mercury. Before any exhaust has taken place the mercury in the tube and cistern is upon the same level; and after any number of turns of the handle of the pump, the air in the tube and receiver is equally rarified, and the mercury will ascend in the tube till the weight of the column above the surface of that in the cistern, and dilution of the air in the receiver, taken together, be equivalent to the weight of the atmosphere; and if the altitude of the column is equal to the standard altitude, the vacuum in the receiver, and that above the mercury in the barometer, are the same. For an account of the pyshon-gage, occasionally substituted for the barometer gage, and the pear gage; see Gage.

In a contrivance, suggested by an ingenious workman of the late Mr. Adams, and annexed to the pumps constructed by Mr. Jones, one of the lower flexible oil-hens, or leather valves in the two barrels, is attached to a brass ring, which is allowed an interval of motion of 1/10th of an inch; a long wire is fixed to a bar over the diameter of the ring, which wire pales along the body of the piston and rod through a collar of leathers in the piston. By the friction of these leathers upon the rod, as they move up and down, the lower valve is occasionally raised and depressed; and thus a communication is opened with the barrel and receiver, and consequently the exhaustion is carried to as great a degree as the nature of the air itself appears to admit. By a comparison of the height of the mercury in a good barometer tube, Mr. Jones did not observe the 1/10th of an inch difference between this and that of the barometer gage to the pump; and consequently the rarefaction was about 1200 times; and hence he concludes that it was equal in power to that of Mr. Cuttbertson or any pump whatever.

We shall now describe more minutely the parts of which Mr. Prince's improved air-pump consists. Fig. 49. Plate vii. represents a perpendicular section of one of the barrels, the two cisterns, condening gage, &c.; where A B is the barrel, C D is the cistern upon which it stands, a a a a a the leathered joint, tube, into a socket, and buried in oil; E F is the piston, with the cylindrical rod passing through a collar of leathers, G G, in the box H. K shows the place of the valve on the top plate K, covered by the croso piece M, into which is soldered the pipe O O, that conveys the air from the valves to the duct going under the valve pump, as may be seen in fig. 51. P is part of the said duct; P is the joint fink into a socket in the croso piece PP, which connects the cisterns, and has a duct through it leading to them. Into this duct open the ducts q and r, the first leading to the gage in front of the pump, and the other to the cock and receiver. The other barrel is left out of the figure, except Q, which is the top of it brought out of its place for the purpose of viewing the top plate which shuts up the barrel, separated from the box, which contains the collar of leathers. S is one of the holes in the plate over which the valve lies, and which is covered by K in the croso piece. V V is the piston shewing the valve open on the top, which is to prevent labour when the pump condenes. W X is the cistern, in which is more diffusely set the shoulder for the leathers, which clous the point between this and the barrel, and also the socket in which the oil lies over the leather. Y Z is the condening gage, with the orifice of the tube raised above the surface of the quicksilver; e e is the collar of leathers, through which the glass tube moves; and i is a small pipe coming up through the quicksilver to form a communication between the valves and the gage. In fig. 50, is seen the upper surface of the top plate.
plate which closes the barrel, being folded into it, drawing the place of the valves over the three small holes. Fig. 51, is a perpendicular division of the bottom piece, pipe, valve-pump, cock, &c. at right angles with the other section, fig. 50. The bottom o is screwed here into the top instead of the gage. C D is the valve-pump and cistern, e the place of the valve under the cup; f the cock, drawing the duct through it leading to the atmosphere; g h the pipe leading from it to the rim of the receiver plate, in which is the cock i, to shut up the duct when the plate is used as a transfer-funnel. k k is the plate; l a piece to shut up the hole, into which tubes, &c. are occasionally screwed to perform experiments without removing the plate. The dotted line at o shows the place of the screw which presses the plate against the pipe; p q the pipe and common gage standing in front of the pump. Fig. 52, is a horizontal section of the cock, and pieces containing the ducts leading from it to the receiver, the cisterns and the valves on the top of the barrels; a b the duct, connecting the cisterns together; c d the duct leading from the cisterns to the cock; g h the duct leading from the cock through the pipe a b (fig. 51) to the valves; d e the duct through the cock, which occasionally connects the two last mentioned ducts with the duct d e, leading from the cock to the receiver; l the duct in the cock leading to the atmosphere, which, when connected with the duct at d, lets the air into the cisterns and barrels for condensation; the other duct through the cock at the same time connecting h and e. This duct also, when connected with e, restores the equilibrium in the receiver. k l is part of the duct leading from the cisterns to the gage. The dotted circles show the places of the pipe and valve-pump on the piece, and e the place where the air enters the valve-pump from the duct g h, and is thrown into the atmosphere when the pump exhausts. Fig. 53, shows the under surface of the boxes which contain the collars of leathers with the grooves piece which connects them together, having a duct through it, as represented by the dotted line, through which the air passes from the valves into the pipe. This figure is chiefly designed to show the places in which the valves play, as at l. American Transactions, vol. i. Boston, 1785. Nicholson's Journal, vol. i. p. 121-128. Adams's Lectures on Nat. and Exp. Philos. by Jones, vol. i. p. 51-54, p. 153.

The air-pump of Mr. Cuthbertson is so excellent in its structure, and so powerful in its effect, that it claims particular notice and description. A perspective view of it appears in Plate viii. Pneumatics, fig. 56. Its two principal gages are screwed into their places; but these need not be used together, except in cafes where the utmost exactness is required. In common experiments, either of them may be taken away, and a stop-screw put into its place. When the pear-gage is used, a small round plate, large enough for the receiver to stand upon, must first be screwed into a hole at a; but when this gage is not used, this hole must be closed with a stop-screw. When all these gages are used, and the receiver is exhausted, the stop-screw B, at the bottom of the pump, must be unscrewed, to admit the air into the receiver; but when the gages are not all used, the stop-screw at A, or either of the other two which are in the place of the gages, may be unscrewed for this purpose. In fig. 57, c d represents one of the barrels of the pump, f the collar of leathers, g a hollow cylindrical vessel to contain oil: k is also an oil-vessel, which receives the oil that is driven with the air through the hole a a, when the piston is drawn upwards; and when this is full, the oil is carried over with the air along the tube T, into the oil vessel G; e e is a wire which is driven upwards from the hole a a, by the passage of the air: and as soon as this has escaped, falls down again by its own weight, flutters up the hole, and prevents any air from returning by that way into the barrel; at d d are fixed two pieces of brass, to keep the wire e e in such a direction as may preserve the hole airtight. H is a cylindrical wire, which carries the piston I, and is made hollow to receive a long wire, q q, that opens and closes the hole L, which forms the communication with the receiver standing on the piece; m is part of a pipe, one end of which is screwed into the wire q q, that opens and shuts the hole L; and upon the other end, o, is screwed a nut, which, stopping in the smaller part of the hole, prevents the wire from being lifted too high. This wire and forew are more clearly seen in fig. 58, and fig. 62: they slide through a collar of leathers, r r, fig. 58, and fig. 61, in the middle piece of the piston. Figures 60 and 61, are the two main parts which compose the piston; and when the pieces in figures 59 and 62 are added to it, the whole is represented by fig. 58. Fig. 61, is a piece of brass, turned in a conical form, with a shoulder or ledge at the bottom; a long female-screw is cut in it, about two-thirds of its length; and the remaining part of the hole, in which there is no forew, is about the same diameter as the screw part, except a thin plate at the end, which is of a breadth exactly equal to the thickness of q q. That part of the inside of the conical piece of brass, in which no thread is cut, is filled with oiled leathers with holes in them, through which q q can slide airtight; there is also a male-screw with a hole in it, which is fitted to q q, and serves to press down the leathers r r. In fig. 60, a a a a is the outside of the piston, the inside of which is turned exactly to fit the outside of fig. 61; b b are round leathers, about 60 in number; c c is a circular plate of brass, of the size of the leathers; and d d is a screw, which serves to press them down as tight as is necessary. The male forew, at the end of fig. 59, is made to fit the female screw in fig. 61. If fig. 62, be pushed into fig. 61, this into fig. 60, and fig. 59 screwed into the end of fig. 61, there will compose the whole piston, as represented by fig. 58. H, in fig. 57, represents the same part as H in fig. 58, and is that to which the rack is fixed. If this, therefore, be drawn upwards, it will make fig. 61 shut close into fig. 60, and drive out the air above it; and when it is pushed downwards, it will open as far as the shoulders a a, (fig. 62,) will allow, and suffer the air to pass through. A A (fig. 63,) is the receiver plate; B B is a long square piece of glass, screwed to the undermost side of the plate, through which a hole is drilled, corresponding with that in the centre of the receiver plate, and with the three female forews b b.

In order to conceive how the rarefaction of the air is effected, suppose the piston to be at the bottom of the barrel, and a receiver to stand upon the plate, the inside of the barrel, from the top of the piston to a, is full of air, and the piston shuts: when drawn upwards, by the hollow cylindrical wire H, it will drive the air before it, through the hole a a, into the oil-vessel R, and out into the atmosphere by the tube T. The piston will then be at the top of the barrel at a, and the wire q q will stand nearly as it is represented in the figure, just raised from the tube L, and prevented rising higher by means of the nut o. While the piston is moved upwards, the air will expand in the receiver, and be driven along the bent tube m, into the inside of the barrel. Thus the barrel will be filled with air, which, as the piston rises, will be rarefied in proportion as the capacity of the receiver, pipes, and barrel, is to the capacity of the barrel alone. When the piston is moved downwards again by H, it will force the conical part, fig. 61, out of the hollow part, fig. 60, as far as the shoulders a a: fig. 58, will
AIR

will rest upon a, fig. 63, which will then be so far open as to permit the air to pass freely through it, while at the same time the end of $qq$ is forced against the top of the hole, and closes it in order to prevent any air from returning into the receiver. Thus the piston, while moved downwards, suffers the air to pass out between the sides of fig. 66 and fig. 67, and when it is at the bottom of the barrel, will have the column of the air above it; and, consequently, when drawn upward, it will float and drive out this air, and by opening the hole $h$, give a free passage to more air from the receiver. This process being continued, the air will be exhausted out of the receiver as far as its expansive power will permit: for in this machine there are no valves, as in the common air-pumps, to be forced open by the air in the receiver, which, when its elasticity is diminished, it becomes unable to feel; nor is there anything to prevent the air from expanding to the greatest degree.

In using this machine for exhaustion, no directions are necessary besides those which relate to common pumps, nor is any peculiar care required to keep it in order, except that the oil-vessel, $G$, be always kept about half full of oil. When it has stood for a considerable time without being used, it will be proper to draw a table-spoonful or two of oil through it, by pouring it into the hole in the middle of the receiver plate, when the piston is at the bottom of the barrel; then, by moving the winch backward and forward to raise and depress the piston, the oil will be drawn through all the parts of the machine; and the superfluous part will be forced out through the tube $T$, into the oil-vessel $G$. Near the top of the cylindrical wire $H$, is a square hole, which is intended to let in some of the oil from the vessel $G$, so that the oiled leathers, through which the wire $qq$ slides, may always be duly supplied with it.

When the pump is required to condense, either at the time when it exhausts, or separately, the piece which contains the bent tube $T$, must be taken away, and fig. 64 put into its place, and filled with the same screws. In the plate, fig. 64, is drawn as it is made for a double-barrelled pump; but for a single barrel, one piece is used, represented by $aaa$, the double piece being cut off at the dotted line $aaa$. In this piece is a female screw, for receiving the end of a long brafs tube; to which a bladder, if sufficient for the experiment, must be tied; or else a glass, properly confined for this purpose, must be screwed to it. Then the air, which is exhausted out of a receiver having the plate, will be forced into the bladder or glass connected with the brafs tube. But if the pump be double-barrelled, the apparatus, as represented by fig. 64, must be used, and the long brass tube screwed into the female screw at C.

The two gages are represented in fig. 65, and fig. 66; the one is the syphon-gage, and the other the barometer or long gage. When these are used, fig. 65, must be screwed into the female screw, $e$, or into that at the other end $e$, fig. 63; and fig. 66 into the female screw $e$, fig. 63.

If it be used as a single air-pump, either to exhaust or condense, the screw $K$, which falls on the rack to the cylindrical wire $H$, must be taken out; then turning the winch till this wire is depressed as low as possible, the machine will be rendered fit to exhaust as a single air-pump; and if it be required to condense, the directions already given with regard to the bent tube $T$, and fig. 68, must be observed.

Mr. Cuthbertson has, by a variety of experiments with this air-pump, shewn its great powers of exhaustion. With the double syphon gage, and also with the long gage, compared with an attached barometer, in which the mercury had been repeatedly boiled, the difference between the heights

of the mercurial column proved to be no more than $\frac{1}{2}$ of an inch, the barometer standing at 30 inches, which gives an exhaustion of 1200 times. On some occasions, when the air was in a very dry state, he observed the difference to be as low as a $\frac{1}{4}$ of an inch, which indicates more than double the rarefaction. See Description of an improved Air-pump, by John Cuthbertson, 8vo. London: for an abridgment, Nicholason's Journal, vol. i. p. 128—130.

We shall close our account of the two pumps of Prince and Cuthbertson with the following judicious remarks of Mr. Nicholason (in his Journal, vol. i. p. 131) on their respective merits and imperfections. "There is no provision to open the upper fixed valve of Prince's greater barrel, except the difference between the pressures of the elastic fluid on each side of the strip of bladder; and this may reasonably be inferred to limit the power of his small pump. In Cuthbertson's pump, the same valve is exposed to the action of the atmosphere, together with that of a column of oil in the oil-vessel. The mischief in either instrument is probably trifling; but in both, the valve might have been opened mechanically. If this were done, the small pump of Prince might perhaps be unnecessary in most states of the atmosphere. With regard to the lower valves, Cuthbertson, by an admirable display of talents as a workman, has infused their action, Prince, on the other hand, has, by the process of reasoning, so far improved the instrument, that no valves are wanted. In this respect, he has the advantage of simplicity and cheapness, with equal effect. The mechanical combination of Cuthbertson's pump reduces the operation to one simple act of the handle: but Prince's engine requires some manipulation with regard to the play of the small pump; though this might have been remedied by a more skilful disposition of the first mover."

"The most perfect scheme for an air-pump, taking advantage of the labours of these judicious operators, seems to be that in which two pilions of the construction of Prince should work in one barrel; one pilon being fixed at the lower end of the rod, and the other at the middle. The lower pilon must come clear out of the barrel when down, and work air-tight through a diaphragm at an equal distance from the effective ends of the barrel. In the diaphragm must be a metallic valve, of the form of Cuthbertson's lower-valve, but with a short tail beneath, that it may be mechanically opened when the pilon comes up. Above the diaphragm must work the other pilon, similar to the first; but as it cannot quit the barrel when down, a small portion of the barrel must be enlarged, just above the diaphragm, so that the leathers may be clear in that position. Lastly, the top of the barrel must be closed and fitted with a valve and oil-vessel, according to the excellent contrivance of Cuthbertson."

"If we suppose the workmanship of such a pump to leave the space between the diaphragm and lower pilon, when up, equal to one thousandth part of the space padded through by the stroke of that pilon, the rarefaction produced by this part of the engine will in theory bear the same proportion to that of the external air; and the same supposition applied to the upper pilon, would increase the effect one thousand times more: whence the rarefaction would be one million times. How far the practical effect might fall short of this from the imperfections of workmanship, or the nature of the air, which in high rarefactions, may not diffuse itself equally through the containing spaces, or from other yet unobserved circumstances, cannot be deduced from mere reasoning without experiment."

It is observed in the Encyclopaedia Britannica, (vol. xv. p. 107.) that a construction of the air-pump, similar to that of
of Mr. Cuthbertson, was invented, and, in fact, executed, before the end of 1779, by Dr. Daniel Rutherford, afterwards professor of botany in the university of Edinburgh. He made a drawing of a pump, having a conical metal valve in the bottom, furnished with a long slender wire, sliding in the inside of the piston-rod with a gentle friction sufficient for lifting the valve, and secured against all chance of failure by a spring at the top, which took hold of a notch in the inside of the piston-rod, about a quarter of an inch from the lower end, so as certainly to lift the valve during the half quarter of an inch of the piston's motion. He had executed a valve on this principle; but his thoughts were diverted from the further prosecution of the business.

In Phil. Trans. (vol. lxxii. p. 435) we have a description by Mr. Cavallo, of an air-pump contrived and executed by Melsirs. Haas and Hutter, instrument-makers in London, in the construction of which these artists have revived Guericke's method of opening the barrel-valve during the half strokes of the pump, by an external force; of this pump Mr. Cavallo says, that when it had been long used, it had, in the course of some experiments, received 600 times.

The description and description of a new air-pump, acting by means of a quantity of oil in the barrel, and invented by James Sadler, Esq., have been published by Mr. Nicholson, in his journal, vol. i. p. 341, &c. He says, that it possesses the desirable requisites of simplicity, cheapness, and power; though at the same time he very properly suggests, that the oil, in process of time, may become changed by the circulation, and loss fit for the purpose, and probably carry with it bubbles of air. He does not mention its practical effects.

A new air-pump, similar in its principle to those of Mr. Screaton and Mr. Cuthbertson, has lately been constructed by the Rev. Mr. Little, of the county of Mayo in Ireland. The principal parts of this machine are one barrel and piston, one stop-cock, one valve, and two pipes of communication. It is of a portable size, and so contrived as to be confined in a very small space. The barrel is placed horizontally, and the rack by which the piston is moved under the barrel, so that the machine may be packed in a box two feet long, 18 inches wide, and seven in depth. It is adapted to the purposes of a condensing as well as of an exhausting engine. As to the effects of this pump, the author informs us, that in several trials of exhaustion, in the months of July, August, and September, 1795, the air being generally very dry, the rarefaction produced, as shown by the pear-gage, was, five times, between 3000 and 4000: the mercury in the barometer gage standing at the tame time always above \( \frac{3}{4} \)th part of an inch higher than it stood in a standard barometer of a wider bore, which was filled with mercury made very hot and poured into a hot tube, and the mercury in the reduced barometer-gage sunk below the level of the surrounding mercury. In the other nine trials, the rarefaction, as shown by the pear-gage, was from 9000 to 26000; when the barometer-gage stood \( \frac{3}{4} \)\( \frac{3}{4} \)th of an inch higher than that in the standard barometer, and sunk in the reduced barometer still lower than before beneath the flagrant mercury. For a particular description and drawing of this instrument, and a minute detail of its practical effects; see Transactions of the Royal Irish Academy, vol. vi. p. 319—391.

The portable or table air-pump differs principally in size and the structure of the gage from the common air-pump described at the beginning of this article. It has two brass barrels, which are firmly retained in a perpendicular situation to the square wooden table on which they rest by a transverse beam, which is pressed upon them by serews at the top of two pillars. From the hole in the center of the pump-plate, there is a perforation or canal in a brass piece, to the fore part of the frame of the pump; and from this canal there is a perforation right-angular to the former, pitting to the center of the bellows of each barrel. At each of these centers a valve is placed opening upwards to admit the air into the barrels. To each barrel a piston is fitted so that the air cannot pass between it and the sides of the barrel. Each piston has a valve opening upwards, that the air in the lower part of the barrel may escape through them into the common air. They are also connected with a rack, and are raised or depressed by a handle, the lower part of which is fixed to the axis of a cog-wheel, whose teeth lay on the teeth of the rack. One piston is raised, and the other is depressed, by the same turn of the handle. The operation of exhausting is the same as in the common pump. Two barrels are advantageous, because they perform the work more speedily, and also because the weight of the atmosphere, pressing upon the rising piston, is counterbalanced by the same weight pressing upon the other piston defending.

Behind the large receiver upon the pump-plate, there is a small plate for sustaining a small receiver. From the hole at the center of this plate there is a canul communicating with that which pusses from the large receiver to the barrels. Under the receiver is a small bottle containing mercury, a small tube filled with mercury and freed from air, and inverted with the open end in the mercury; this is called the short barometer-gage. As the air is taken out of the receiver on this small plate, it is taken at the same time from the larger one; and the deficit of the mercury in the tube will point out the degree of rarefaction in the receiver. The mercury, however, does not begin to descend in this tube till near three-fourths of the air have been exhausted; and the air is said to be as many times rarer than the atmosphere, as the column of mercury sustained in this tube is less than the height at which the mercury stands, at that time, in a common barometer. The pythom-gage, which is sometimes used, is a glass tube, bent in the form of a pythom, hermatically sealed at one end and open at the other. The longest leg is four inches, each of which is divided on an adjoining scale, into 20 equal parts. After considerable exhaustion the gage begins to act; and whilst the mercury falls in one leg, it rises in the other; and the quantity of air remaining will be determined by the difference of the height, at which it stands in both tubes. This gage is placed in the same situation with the short barometer gage.

See Gage.

The small single-barrelled pump has two plates, one for receivers, and the other for a short barometer-gage. Its principle is the same with that of the air-pump just described; excepting that it has only one barrel, and that its piston is merely worked by the hand. In general the single-barrelled pump is made only with one receiver-plate and a mahogany basis, to save expenses, and with its small apparatus, to be packed in a portable mahogany case.

Air-pump, laws of rarefaction in the receiver of it.—1. For the proportion of air remaining at any time in the receiver, (supposing no vapour from moisture, &c.) we have the following general theorem.—"In a vessel exhausted by the air-pump, the primitive or natural air contained therein, is to the air remaining, as the aggregate of the capacity of the vessel and of the pump, (i.e. the cylinder left vacant in an elevation of the piston, with the pipe and other parts between the cylinder and the receiver) raised to a power whose exponent is equal to the number of strokes of the piston, to the capacity of the vessel alone raised to the same power." M. Variignon gives an algebraical demonstration.
of this theorem, in the Memoires de l'Acad. Roy. an. 1693, p. 233; seq. Id. an. 1705, p. 397, seq.; but it may be also demonstrated pneumatically, thus:—Calling the air remaining after the first stroke, the \textit{first residual}; that after the second, the \textit{second residual}, &c. and remembering that the air in the receiver is of the same density as that in the cylinder, when the piston is raised; it is evident, that the quantity of air in the receiver, is to the quantity of air in the cylinder, pipe, &c. as the capacity of the receiver to that of the cylinder, and consequently, the aggregate of the air in the receiver and the cylinder, \emph{i.e.} the whole primitive air, is to the air in the vessel alone, \emph{i.e.} to the first residual air, as the aggregate of the capacity of the receiver and the cylinder, to the capacity of the receiver alone. After the same manner it may be proved, that the quantity of the first residual air, is to the second residual, as the aggregate of the capacity of the receiver and cylinder to the capacity of the vessel alone. And the same proportion does the second residual bear to the third, and so of the rest.

This may be illustrated by an example. Suppose the capacity of the receiver to be twice as great as the capacity of the cylinder or barrel, then will the capacity of the barrel be to that of the barrel and receiver together as one to three; and the quantity of air exhausted at each turn of the pump is to the quantity of air which was in the receiver immediately before that turn, in the same proportion. So that by the first stroke of the pump, a third part of the air in the receiver is taken away; by the second stroke a third part of the remaining air is taken away; by the third stroke a third part of the next remainder is exhausted; and so on continually; the quantity of air evacuated at each stroke decreasing in the same proportion with the quantity of air remaining in the receiver immediately before that stroke; for it is very evident that the third part, or any other determinate part of any quantity must be diminished in the same proportion with the whole quantity itself. And as the quantity of air in the receiver is by each stroke of the pump diminished in the proportion of the capacity of the receiver to the capacity of the barrel and receiver taken together; each remainder will therefore be always less than the preceding remainder in the same given ratio; or, in other words, these remainders will be in a geometrical progression continually decreasing. To recur to the preceding example; the quantity exhausted at the first turn was a third part of the air in the receiver, and therefore the remaining air will be two-thirds of the same; and for the like reason, the remainder after the second turn will be two-thirds of the foregoing remainder; and so on continually; the decrease being always made, in the same proportion of two to three; consequently the decreasing quantities themselves are in a geometrical progression. And as the quantities exhausted at every turn decrease in the same proportion with these remainders; therefore the quantities exhausted at every turn are also in the same geometrical progression. Thus it appears, that the evacuations and the remainders do both decrease in the same geometrical progression. If the remainders decrease in a geometrical progression, it is plain that, by continuing the operations of the pump, you may render them as small as you please; that is, you may approach as near as you please to a perfect vacuum; but you can never entirely take away the remainder.

From the above reasoning it appears, that the product of the primitive air into the first, second, third, fourth, &c. residuals, is to the product of the first residual into the second, third, fourth, fifth, &c. as the product of the capacity of the receiver and cylinder together, multiplied as often into itself as the number of strokes of the piston contains units, is to the product arising from the capacity of the receiver alone, multiplied so often by itself; that is, as the power of the aggregate of the capacity of the receiver and cylinder together, whose exponent is the number of strokes of the piston, to the capacity of the vessel alone, raised to the same power. Consequently, the primitive air is to the last residual, in the ratio of those powers.

2. The number of strokes of the piston, together with the capacity of the receiver and cylinder with the wire, &c. being given; to find the ratio of the primitive air to the air remaining.

Subtract the logarithm of the capacity of the receiver, from that of the sum of the capacity of the receiver and the cylinder; then, the remainder being multiplied by the number of strokes of the piston, the product will be a logarithm, whose natural number shows how often the primitive air contains the remainder required.

Thus, if the capacity of the receiver be 450, and the number of strokes of the piston 6; the primitive air will be found to the remaining air as \(1335^3\) to 1, or 1335 to 1.

For, suppose the capacity of the vessel = \(v\), that of the cylinder and vessel together = \(a\), the number of strokes of the piston = \(n\), and the remaining air = \(r\). Since the primitive is to the remaining air as \(av\) to \(rv\), the primitive air will also be to the remaining air, as \(av/n\) to \(rv/n\). Consequently, if the remaining air be 1, the logarithm of the primitive air is \(\log a - \log v \times n\).

3. The capacity of the barrel and the barrel being given; to find the number of strokes of the piston required to rarefy the air to a given degree.

Subtract the logarithm of the remaining air from the logarithm of the primitive air; and the logarithm of the capacity of the receiver, from that of the aggregate of the capacity of the receiver and cylinder; then, dividing the former difference by the latter, the quotient is the number of strokes required.

Let the primitive air be \(p\), the remaining air \(r\), and the other quantities as before; and we shall have \(p : r = a : v\); and the \(\log p - \log r = n \times \log a - \log v\); and \(n = \log p - \log r + \log a - \log v\).

Thus, if the capacity of the cylinder be supposed 580, that of the receiver 460, and the primitive air to the remaining air, as 1335 to 10: the number of strokes required will be found to be 6.

4. The proportion of the primitive air to the remaining air, together with the capacity of the receiver and the number of strokes of the piston, being given; to find the capacity of the barrel.

Let the first-mentioned proportion be that of \(p : r\); the capacity of the receiver, \(v\), that of the barrel, \(x\), and the number of strokes of the piston, \(n\); then \(p : r = v + x : v\); and \(\log p - \log r = n \times \log v + x - n \times \log v\); consequently, \(\log v + \log p - \log r = \log v + x\). Hence, find the logarithm of the capacity of the receiver and barrel, and from this the capacity itself, and subtracting that of the receiver, the capacity of the barrel will be known.

To the air-pump belongs a large apparatus of other vessels, accommodated to various kinds of experiments.

Besides the effects, and the phenomena of the air-pump, recounted under the articles Vacuum, Air, &c. we may add some others; which, related at large, make the substance of Mr. Boyle's Physico-Mech. Exp. As, that the flame of a candle in vacuo usually goes out in a minute, though it sometimes lasts two, but the wick thereof continues ignited after; and even emits a smoke, which ascends upwards.—That a kindled charcoal is totally extinguished in about five minutes, though in open air it remain alive half an hour; that it goes out by degrees, beginning from the top and the outsides.—That red-hot iron is not affected by the absence of the air; and yet that sulphur or gunpowder will not be lighted thereby, but only fuzed.—That a match, after lying seemingly extinct in vacuo a long time, revives again upon the re-admission of the air.—That a flat and feelrike sparks of fire as copiously in vacuo as out of it; and that the sparks move in all directions, upwards, downwards, &c. here as in the air.—That magnets and magnetic needles, are the same in vacuo as in air.—That smoke in an exhausted receiver, the luminary being extinct, gradually settles to the bottom in a darkish body, leaving the upper part clear and transparent; and that inclining the vessel sometimes on one side, and sometimes another, the fume keeps its surface horizontal, after the nature of other fluids.—That the pyphon does not run in vacuo.—That water freezes in vacuo.—That heat may be produced by attrition in the exhausted receiver.—That camphor will not take fire in vacuo; and that gun-powder, though some grains of a heap be kindled by a burning-glas in vacuo, will not give fire to the contiguous grains.—That glow-worms lose their light in proportion as the air is exhausted, and at length become totally obscure; but upon the re-admission of air, prefently recover it all.—That electricity appears like the Aurora borealis.—That vipers and frogs swell much in vacuo, but will live an hour and half, or two hours; and though feemingly quite dead in that time, come to life again after being some hours in the air.—That finals survive ten hours; and efts or low-worms, two or three days; leeches five or fix.—That fishes will ride up to the top of water, placed under an exhausted receiver, because the air-bladder is expanded, and they are thus made specifically lighter than water; but if the bladder breaks, they sink down to the bottom and ride no more.—That animals who live in water will not die by exhausting the air out of the receiver, unless they are kept for a considerable time in vacuo.—That oysters will remain alive in vacuo 24 hours without harm.—That the heart of an elk taken out of the body, continues to beat in vacuo, more minily than in air; and this for a good part of an hour.—That warm blood, milk, gall, &c. undergo a considerable intumescence and ebullition in vacuo.—That a mouse, or other animal, may be brought, by degrees, to survive longer in rared air, than naturally it does.—That air may retain its usual prefire, after it is become unift for respiration.—And that flock-worms' eggs will hatch in vacuo.

Besides the above-mentioned phenomena, many others are related by different writers on this subject, and they may be found in the Philosophical Transaction of various Academies and Societies, and in the works of Torricelli, Pafcal, Merfenne, Guenick, Schottus, Boyle, Hooke, Haukbree, Duhannel, Mariotte, Hales, Mulchenbroek, Graevfande, Defaguliers, Franklin, Cotes, Helbsam, Martin, Ferguion, Adams, &c. &c. We shall join for the exerciz and amufement of our readers some farther experiments, arranged under different heads. For experiments that require peculiar accuracy, the receiver should not be placed upon leather, either oiled or soaked in water; but the plate of the pump should be made very dry, and the inside of the receiver should be dried and rubbed with a warm cloth. The receiver may then be let upon the plate, and hog's lard, either alone or mixed with oil, be smeared round its outward edge. After performing any experiments, the pump should be cleared of any vapour that has been generated, by exhausting a large receiver to as great a degree as possible; and the vapour that remained in the barrel and pipes will be diffused through the receiver; and if this be large, one exhaustion will be sufficient for clearing the pump. With small receivers the operation should be repeated two or three times. In some of the best pumps, the plate and edges of the receiver are ground so accurately as not to require any leathers; but as the plate is liable to be scratched by letting the receivers upon it, hog's lard or tallow spread upon their edges will be useful. This will prevent the edges from damaging the plate, and will not admit any vapour. When leathers are used for connecting the receiver with a pump plate and for making the junction air-tight, they are previously soaked in water, oil, or a mixture of melted bees' wax and hog's lard. When experiments are performed that require the use of mercury, a small pipe should be screwed into the hole of the pump plate, in order to prevent any of it, that may be accidentally spilt, from passing into the air-pipe and barrels; which would loosen the folder and corrode the brafs.

1. Experiments for measuring the weight and prefire of the air.

1. Exhaust of its air a copper ball, such as C (Plate v. Pneumatics, fig. 26.) the neck of which is furnished with a stop-cock and a screw by means of which it may be fixed to the plate of an air-pump; suspend it, when exhausted, on the end B of one arm of a balance, A B, and lay upon it the small weight p, which must be counterpoised by a weight P in the opposite scale of the balance. Turn the cock of the ball, and the air will rush in and render it so much heavier, that the weight p must be removed in order to restore the equilibrium. If the ball holds a gallon, it will thus be found that a gallon of air weighs about the fifth part of an ounce. See Weight of the Air.

2. Place the small receiver O (fig. 35.) over the hole of the pump plate, and upon exhausting the air, the receiver will be fixed down to the plate by the prefire on its outside; and this prefire will be equal to as many times 15 pounds as there are square inches in that part of the plate, which the receiver covers. By turning the cock of the pump and readmitting the air, the receiver will become loose. In order to prove that the receiver O is held down by the prefire of the air, suspend it on the hook of the wire P P passing through the collar of leathers at the top of the receiver M, by which it is covered, and thus let it down on the plate of the pump; and when the air is exhausted from both receivers, the large receiver M will be fixed to the plate by the prefire of the external air; but the small one O will he loose and may be easily removed; on letting in the air, the leiffer O will be fixed down upon the plate and the other will be released.

3. Place a small brafs or glafs vessel A B (fig. 27.) which is open at both ends over the hole of the pump plate, and cover the top of it with the hand; which, when the air is exhausted, will be prefled down by the weight of the external air, so that it cannot be released without difficulty till the air is readmitted.

4. Tie a piece of wet bladder, as b (fig. 28.) over the open top of the glafs A; when it is dry, let the open end
A over the hole of the pump plate, and as you exhaust the air, the bladder will be pressed down and assume within the glass a concave figure, and at length it will break with a loud report. If a piece of flat glass be laid upon the top of this receiver, and joined to it by a rim of wet leather, the pressure of the outward air will break the glass, when the internal air is exhausted.

5. Immerse the neck d of the hollow glass ball c b (fig. 29.) in the water of the phial a s; place it on the plate of the pump, and cover it and the hole of the plate with the receiver A; exhaust this receiver, and the air will escape by its spiring from the ball c b, through the neck d e, rise in bubbles through the water, and pass off into the external air. When it has done bubbling, turn the cock of the pump, and the air that is admitted will, by its prelure on the surface of the water force it up in a jet into the ball c b, and almost fill it; the small quantity of remaining air, which occupied the whole ball, and which is now reduced to a small space of condensation, preventing the water from filling the whole cavity of the ball. This experiment may be varied by severing the end A of the brass pipe A B E (fig. 30.) into the hole of the pump plate, and placing, by means of wet leather, upon the plate c d a tall receiver G H close at the top, exhausting the receiver of its air and filling the pipe by the cock e f; when this is done remove the apparatus from the pump, let its end A in a basin of water, and open the pipe by turning the cock e; and the prelure of the air on the water will force it up through the pipe, so that it will ascend in a jet to the top of the receiver.

See Fountain.

6. Set the jar D (fig. 31.) containing quicksilver, near the hole of the pump plate, and cover both with the tall open receiver A B. Into the plate C, placed upon the upper end of this receiver, introduce the open glass tube g; immerse at its lower extremity in the quicksilver of the jar D, and screw by a brass top annexed to it at b to the syringe H, which is itself screwed to the plate C. By the ring I, draw up the piston of the syringe, and thus exhaust the tube of its air; and the quicksilver in the basin pressed by the undilated air of the receiver A B will ascend in the tube. That this ascent is owing to the prelure of the air, and not to what some have called suction, may be evinced by exhausting the receiver of its air, which will cause the quicksilver to descend into the jar, and by readmitting the air, which will raise it again in the tube, although the piston of the syringe be not moved. If the tube be about 32 or 33 inches high, the quicksilver will rise nearly as high in the tube as it stands at that time in the barometer. If the syringe has a small hole at m, and the piston be drawn up above that hole, the air will pass through it into the syringe and tube, and the quicksilver will immediately fall down into the jar.

7. Place the jar A (fig. 32.) with quicksilver in it on the pump plate, cover it with the receiver B, and push the open end of the glass tube d e through the collar of leathers in the brass neck C, almost down to the quicksilver in the jar. Exhaust the receiver B of its air, and the tube d e, which is close at the top f, will at the same time be exhausted. When the receiver has been well exhausted, put the open end of the tube into the quicksilver of the jar; and though the tube be exhausted of its air, the quicksilver will not rise in it, because there is no prelure on the surface of that in the jar. But upon admitting the air into the receiver, the quicksilver will immediately rise and stand as high as it did in consequence of the action of the syringe in the preceding experiment.

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These two last experiments not only exhibit the weight and prelure of the air, but they also show that there are increased or diminished in proportion to the increase or decrease of the air's depth. See Barometer and Torricellian Experiment.

8. Join the two brass hemispheres A and B together (fig. 36.) by the interposition of a wet leather, with a hole in the middle of it; then screw the end D into the plate of the pump, and turn the cock E of the pipe, C D, communicating with the hemispheres; and having exhausted the air, turn the cock f, so as to slip the pipe. Having removed it from the pump, screw at the end D, the piece F b, and two strong men pulling at the handles g and h, will find it difficult to separate the hemispheres; for if the diameter be four inches, they will cohere together with a force equal to 188 pounds, the area being equal to the square of the diameter multiplied by 7854, and the prelure on every square inch being 15 pounds. If they be suspended by either of the rings on the hook P of the receiver M (fig. 37.), and the receiver be exhausted of its air, they will separate of themselves.

9. Set the square phial A (fig. 37.) upon the pump plate, and cover it with the wire cage B; then placing it under a close receiver, exhaust the receiver and the phial which has a small hole under a valve at b of their air; and the air upon its readmission into the receiver, being prevented from passing into the phial by the valve b, will break it into a number of pieces by its prelure. Quicksilver may be also forced into wood, and made to pass through it by the prelure of the air.

II. Experiments for showing the elasticity or spring of the air.

1. Place a bladder, containing a small quantity of air and well tied up, under a receiver; and when the receiver is exhausted, the air will expand and fill the bladder so that it will appear as if it were blown with common air. Upon letting in the air, the bladder pressed by it will be reduced to its original flaccid state. This bladder put into a box under a weight of 20 or 30 pounds, and covered with a receiver, will, upon the exhaustion of the receiver, raise the weight by means of the spring of the internal air.

2. Take the glass ball (fig. 29.) which was filled with water, a small bubble of air at the top of it excepted, and having placed it with its neck downward into the empty jar a s, and covered it with a close receiver, exhaust the receiver of its air, and the air-bubble will expand itself, and by its elastic force protrude the water out of the ball into the jar. Or, screw the pipe A B (fig. 30.) into the pump plate, and place the tall receiver G H upon the plate d e; exhaust the receiver, and then remove the apparatus and screw it into the copper vessel C C (fig. 38.) half filled with water. Then turning the cock e (fig. 32.) and the air confined in this vessel will by its spring force the water through the pipe A B, and cause it to form a jet into the exhausted receiver, equal to that which was produced by the prelure of the air in a former experiment; other circumstances being alike.

2. Let the balls annexed to the heads of the hollow glass images (fig. 39.) contain water sufficient to render them specifically heavier than water. Place them under a receiver and exhaust it; and the air in the balls will dilate, force part of the water out, and render the images lighter than water, so that they will ascend. On re-admitting the air, they will descend. Small apertures made in the feet of these images will vary the experiment, and answer the same purpose.

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3. Animals
3. Animals that die in an exhausted receiver are evidently opiumed at first with a great weight, then convulsed, and at last expire in apparent agony. Instead of repeating experiments of this kind, the effect of exhaustion is ascertained by what is usually, though improperly, called the lungs-plat. This consists of a bladder tied round a small tube which passes into a bottle, and scaled so tight, that the air cannot escape any way but through the tube. When this machine is put under a receiver and the air begins to be exhausted, the spring of that, which is contained in the bottle, and which cannot escape, compresses the bladder; and when air is again let in, the bladder expands; and these alternate motions of compression and dilatation have been supposed analogous to those of the lungs. See fig. 42.

4. Pour quicksilver into the bottle A (fig. 41.) and screw the brass collar c, of the tube B C, into the brass neck b of the bottle, and let the lower end of the tube be immersed into the quicksilver, so that the air above the quicksilver may be confined there. Cover this tube, which is open at the top, with the receiver G and large tube E F, fixed by brass collars to the receiver and close at the top. Exhaust the receiver and its tube; and the air will be thus exhausted out of the inner tube B C through its open top C; and then the air confined in the bottle A will, by its spring, force the quicksilver in the inner tube as it was raised in a former experiment by the pressure of the atmosphere; and thus it appears that the elasticity of the air is equivalent to its weight.

5. Screw the end C of the pipe C D (fig. 42.) into the hole of the pump plate, and open the communication between the three pipes E, F, and D, in the hollow trunk A, B, by turning the three cocks d, G, and H. Cover the plate g and b with wet leathers, having holes in their middle, so as to communicate with the pipes; place the close receiver I upon the plate g; put the pipe F, by turning the cock H; and exhaust the air out of the receiver I. Shut out the air by turning the cock d; remove the machine from the pump; screw it to the wooden stand L; and put the receiver K upon the plate b, on which it will be loose whilst it is full of air; but upon turning the cock H, and opening the communication between the pipes F and E, through the trunk A, B, the air in K will, by its spring, pass from K to I, till it becomes of equal density in both receivers; and then they will be held down with equal force upon their respective plates by the pressure of the atmosphere, and the force with which K was held down will be divided between K and I.

Thus it appears, that a force equal to half the elastic force of common air will act within the receivers against the whole pressure of the common air on their outsides. This instrument is called a double transferrer, and it serves to transfer the air from one vessel into another.

6. Tapp a cork in the square phial A (fig. 37.) with wax or cement; put it upon the pump plate, cover it with the wire cage B, and place a close receiver over the cage. Upon exhausting the receiver of its air, that which was enclosed within the phial will dilate itself, and having no counter pressure on the outside, will break the phial outwards by the force of its spring.

7. Place a thrivelled apple under a receiver, and as it is exhausted, the spring of the air within the apple will pump it out and cause the wrinkles to disappear; but upon readmitting the air, it will return to its thrivelled state.

8. Put a fresh egg, from the small end of which a little of the shell and film is removed, under the receiver; and when the air is pumped out, the small bubble of air contained between the shell and film at the larger end, will dilate itself, and protrude the contents of the egg into the receiver. If the egg be placed in a jar of water under the receiver, its surface will be covered with bubbles of air in the progress of exhaustion.

9. Warm beer put under a receiver, exhausted of its air, will discharge bubbles, which will rise to the surface, and at length give it the appearance of boiling.

10. A piece of dry wanton or other wood, being put into warm water and covered with a receiver, will discharge air, as the receiver is exhausted, and exhibit bubbles of air, especially about its ends, because the pores be longitudinal. A cubic inch of dry wanton has so much air in it, that it will continue bubbling for half an hour together.

If a piece of wood be made to pass through a plate covering the top of a receiver, with one port exposed to the air and the other immersed in a jar of water under the receiver, and the thumb be put on the top of the wood whilst the pump is working, the air contained in the pores of the wood will rise in bubbles through the water; but if the thumb be taken off, a stream of air will flow in through the wood; and thus by alternately taking off the thumb and placing it on the wood, the influx of the air will be alternately admitted and interrupted. See Air and Elasticity of the Air.

III. Experiments for shewing the resistence of the air.

1. The machine (fig. 43.) consists of two mills, a and b, of equal weight, and moving independently and freely on their axes. Each mill has four thin vanes or fans, fixed in the axis; those of the mill a having their planes perpendicular to the axis, and those of the mill b having their planes parallel to it. When the mill a turns round in common air, it will suffer little resitance, because its fans cut the air with their thin edges; but the mill b is much resisted, because the broad sides of its fans move against the air, when it turns round. Each axle has a pin near the middle of the frame, which passes through the axle and projects a little on each side of it; upon these pins the slider d may be made to bear, and thus hinder the mills from going, when the spring e is set on bend against the opposite ends of the pins. Having set the machine upon the pump plate, draw up the slider d to the pins on one side, and set the spring e at bend upon the opposite ends of the pins; then push down the slider d, and the spring acting with equal strength on each mill will set them at work with equal forces and velocities; but the mill a will run much longer than b, because it meets with much less resistance. Draw up the slider again, and set the spring upon the pins as before; then cover the machine with the receiver M (fig. 35.) upon the pump plate; and having exhausted it, push down the wire P P, through the collar of leathers in the neck g, upon the slider, which disengaging it from the pins will allow the mills to turn round by the impulse of the spring; and as there is no air in the receiver that yields any sensible resistance, they will move for a longer time than in the open air, and when one stops, the other will stop also. Hence it appears, that the air resists moving bodies, and that equal bodies meet with different degrees of resistance, according as they present greater or less surfaces to the air, in the planes of their motions.

2. Put the guinea a and feather b (fig. 44.) upon the brass flap c; turn up the flap, and shut it into the notch d. Then putting a wet leaf over the top of the tail receiver A B, which is open at both ends, cover it with the plate C, so that the tongues c d may hang within the receiver. Then having exhausted the receiver, draw up the wire f, and the tongues c d will be opened by a piece at its end, and the flap e falling.
AIR

falling down, the guinea and feather will be observed to
defend with equal velocities, and by looking steadily to the
bottom of the receiver, to fall to the pump plate at the same
instant. When air is in the receiver, the guinea will fall in
an instant, and the feather will descend gently and by an in-
direct motion. This apparatus is sometimes so contrived
as to let three guineas with their feathers fall separately
at three different times, without taking it off or exhausting
the air. See Resistance of the Air.

IV. Miscellaneous Experiments.

1. Suck the syringing H (fig. 31.) to a piece of lead,
weighing at least one pound; pull up the piston, which
will cause a vacuum in the syringe, and the air by its pre
dure will drive back the lead upon it; raising it, and counteracting
its natural weight. But if the syringe and annexed weight
be placed in an exhausted receiver, they will fall upon the piston
by their natural gravity, and upon readmitting the air, they
will be drove upward again, so that the piston will be at
the bottom of the syringe.

2. To a balance A B, Plate vii. Pneumatics, fig. 54. suspend
a weight of lead, and let it be in equilibrium with a piece of cork.
Place this apparatus under a receiver and exhaust the air, and
the cork will preponderate; but let the air be admitted, and
the equilibrium will be restored. As the air is a fluid, all
bodies lose as much of their weight in it as is equal to the
weight of an equal bulk of the fluid; and as the cork is
larger, it loses more of its absolute weight than the lead,
and of course must be heavier in order to compensate this
greater loss; but when the air is removed, all bodies grav
titate according to their quantities of matter, and therefore
the cork, which balanced the lead in air, will appear to be
heavier in vacuo. A more elegant apparatus for this experi
ment, confiding of a light glass ball A, and a brafs weight
B, is exhibited in fig. 55.

3. Set a clean receiver upon the plate of a pump, and
when you begin to exhaust it, hold a candle to the side of
the receiver opposite to your eye, and several colours, re
sembling a halo, will appear about the candle, which are oc
casional by the vapours that arise from the wet leathers and
their refraction of the light.

4. Place a lighted candle under a tall receiver, and if it
holds about a gallon, the candle will continue to burn about
a minute; and its light will gradually decay and at length
be extinguished. The smoke of the candle will ascend and
form a kind of cloud at the top of the receiver; but upon
exhausting it, the smoke will fall down to the bottom; thus
shewing, that smoke does not ascend because it is positively
light, but because it is lighter than air.

5. Let the pipe represented in Plate viii. Pneumatics, fig. 68,
be annexed to the top of an open receiver, and the air be
exhausted; then place one end of the pipe in the middle of
a charcoal fire, and open the cock; and the noxious air of the
charcoal will pass through the pipe into the receiver; remove
the pipe from it, and let down a small lighted wax taper into
the receiver, and it will be immediately extinguished. A mouse
or bird let down into the receiver will be killed by the air
which it contains. If a candle be let down gently, it will
purify the air as it descends.

6. By connecting the wire that passes through the collar
of leathers of a receiver with the trigger of a pistol lock,
placed under it, exhausting the air, and then drawing the
trigger, the flint will strike the steel and produce sparks of
fire, which will not be visible as in the open air. Or, if
two iron bullets be made red-hot, and one of them be under
an exhausted receiver, it will not appear luminous, like the
other which remains in the open air.

7. Set a bell upon a cushion under a receiver on the pump
plate; and shake the pump so as to make the clapper
strike against the bell, and the sound will be distinctly
heard; but exhaust the receiver, and if the clapper be
made to strike with great force against the bell, it will make
no audible sound; hence it is inferred, that air is nece
sary for the propagation of sound.

Air-shafts, among Miners, denote holes or shafts let
down from the open air to meet the adits, and furnish fresh
air. The damp, want, and impurity of air, which occur,
when adits are wrought 30 or 40 fathoms long, make it
necessary to let down air-shafts, in order to give the air
liberty to play through the whole work, and thus discharge
bad vapours, and furnish good air for respiration: the
expenditure of which shafts, in regard of their vast depths, hard
ness of the rock, drawing of water, &c. sometimes equal
some exceeds, the ordinary charge of the whole adit.

Sir Robert Murray describes a method, used in the coal
mines at Liege, of working mines without air-shafts. Phil.
Trans. No. 39. See Mining.

Air-threads of spiders. See Threads.

Air-trunk, a simple contrivance by Dr. Hales, for
preventing the stagnation of putrid effluvium, and purifying
the air in cellars and close rooms; which consists of a square
trunk open at both ends, one of which is fixed in the ceiling
and the other is extended to a considerable height above
the roof. The noxious effluvium, ascending to the top of
the room, escapes by this trunk. Some of these have been
nine and others five fathoms in the clear; but whatever be their
diameter, their length should be proportionable, in order to
promote the ascent of the vapour. As the prelude of
fluids, and consequent on the air, corresponds to their
perpendicular altitude, the longer these trunks are, so much
the greater will be the difference between columns of air
tending at the bottom and at the top; and of course so
much the greater will be their effect. See Ventilator.

Air-vessel, in Hydraulics, is a name given to those met
alline cylinders, which are placed between the two fore
pumps in the improved fire-engines. The water is injected
by the action of the pistons through two pipes, with valves,
to this vessel; the air previously contained in it will be
compressed by the water, in proportion to the quantity ad
mitted, and by its spring force the water into a pipe, which
will discharge a constant and equal stream; whereas in the
common squirting engine, the steam is discontinued between the
two or three strokes. Other water-engines are furnished with
vessels of this kind.

Air-vessels, in Botany, are certain canals, or ducts, where
by a kind of assimilation and respiration is effected in vege
table bodies.

Air-vessels have been distinguished from sap-vessels; the
former being supposed to correspond to the tracheas, and

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lunge
large of animals; the latter to their lacteals and blood-veils.

Dr. Grew, in an enquiry into the motion and cause of the air in vegetables, shews, that it enters them various ways, not only by the trunk, leaves, and other parts above ground, but at the root. For the reception, as well as expulsion of air, the pores are so very large in the trunks of some plants, as in the better sort of thick walking canes, that they are visible to a good eye without a glass; but with a glass, the cane seems as if it were full of large pin-holes resembling the pores of the skin in the ends of the fingers, and ball of the hand. In the leaves of the pine, through a glass, they make an elegant flaw, spanning almost exactly in rank and file throughout the length of the leaves.

But though the air enters in partly at the trunk and also at other parts, especially in some plants, yet its chief admission is at the root: much as in animals, some part of the air may continually pass into the body and blood by the pores of the skin; but the chief draught is at the mouth. If the chief entrance of the air were at the trunk, before it could be mixed with the sap in the root, it must descend; and so move not only contrary to its own nature, but in a contrary course to the sap: whereas by its reception at the root, and its transmission thence, it has a more natural and easy motion of ascent. See Circulation of Air.

The same fact is farther deduced, from the likeness and smallness of the diametral apertures in the trunk, in comparison of those in the root; which nature has plainly designed for the separation of the air from the sap, after they are both together received into them. Grew, Annt. of Root, chap. ii. p. 127.

Air-veils are found in the leaves of all plants, and are evendiscoverable in many without the help of glasses; for upon breaking the stalk or chief fibres of a leaf, the likenesses of a fine wholly sublunience, or rather of curious small cobwebs, may be seen to hang at both the broken ends. This is taken notice of only in some few plants, as in Jacobea, where it is more visible: but may also be seen more or less in most others, if the leaves be very tenderly broken. This wool is really a skein of air-veils, or rather of the fibres of the air-veils, loosed from their spiral position, and so drawn out in length. Id. ibid. chap. iv. p. 155.

That air is inspired by vegetables, has been fully proved by Dr. Hales, in his Statical Essays, (vol. i. p. 155, &c.) and he has in many instances shewn, that air freely enters the vessels of trees, and that it is in great abundance wrought into their sublunience. But as to particular air-veils in plants, he seems to speak doubtfully. He says, by way of question, may not the use of those spiral wreathes, that are coiled round the insides of those veils, which are supposed to be air-veils, and which are manifestly to be seen in several trees, and also in the leaves of the vine and ficabious, may not these be designed by nature to promote the quicker ascent of air, by being in some measure conformed to its elastic contortions? For such spiral wreathes seem to altogether deflects, for promoting the ascent of any liquor, as the sap, which ascends most freely through innumerable other capillary veils, having no such spiral coils in them: not that we are to suppose the air in its elastic state actually to touch, and thereby to be determined in the course of these spirals, as any liquor would be. But as the rays of light, when they are reflected from a solid body, are found to be reflected, without cutting the reflecting body in the point of reflection; so it is not unreasonable to suppose, that elastic air may, like light, be diverted from one course, and so be determined to another, by the solid bodies it approaches, without touching them, but rebounding like light from those solid bodies near the point of contact.

Dr. Hales has observed, that these spirals are coiled in a course opposite to the course of the sun, that is, from west to east. Vide Statick. Efay. vol. ii. p. 265, 266.

Dr. Darwin, in his Phytology, observes, that the vessels which Malphi, Grew, and many others, have denominated bronches, and erroneously thought to be air-veils, and to serve the purpose of respiratory organs, are absorbent veils, defined to imbibe the nutriment of plants, and that they are the genuine lungs of vegetables. These absorbent veils, he says, which resemble the lacteals of animal bodies, are found in the roots of plants for imbiping nourishment from the moist earth, on the external surfaces of the bark and leaves, for absorbing the humidity of the atmosphere, and also in the internal surfaces of the cells and cavities of the vegetable system, where they absorb the secreted fluids, after they have performed the offices to which they are adapted. The existence of the first sort of absorbent vessels, is evidenced by the growth of plants, whilst moisture is applied to their roots, and by their withering when it is withdrawn. Those of the second sort are manifested by plucking off a leaf and laying it in water, which is found not to wither so soon as if it were left exposed to the dry air. The third class of vessels of this kind will be perceived to perform its office by moistening the albumen or sap-wood, and the inner surface of the bark of a branch severed from a tree, which are thus preferred, whilst the same parts left unmoistened in the dry air are observed to wither. Besides, if vegetables be infected in glass-tubes or narrow veils, filled with water, the surface of the water will be seen to subside much sooner than by evaporation alone in similar circumstances. Dr. Darwin also contended to evince these absorbent veils to the eye, by cipping twigs of a fig-tree in a decoction of madder and of logwood, which after some time, upon cutting off about an inch of the stalk near the bottom, exhibited a circle of red points, believed by him to be the coloured ends of the absorbents, that existed in the newly formed albumen. This ingenious writer expresses his allowance that any person should have conceived these veils, that are found in the albumen, and which consist of a spiral line, to be air-veils or tubes. He farther observes, that the absorbent veils of trees, in pulling down their trunks, consist of long hollow cylinders, of a spiral form, and of such large diameters in some vegetables, e.g. in cane, as to be visible, when dry and empty, to the naked eye. Through these air will pass rapidly upward and downward; and hence Dr. Hales has been led to coincide with Grew and others in opinion, that they are air-veils or lungs, designed for respiration, and receiving atmospheric air in their natural state. But to their use as air-veils he objects, because they have no communication with the horizontal air-veils of plants, and they exist in the roots as well as in the trunks of plants, where, not being exposed to the atmosphere, they cannot serve the purpose of respiration. Air, however, in its combined state, or dissolved in water, may be absorbed by these veils; and may appear when the pressure of the atmosphere is removed in the exhaled receiver, or when it is expanded by heat, as is the case in the froth observed at one end of a green stick, when the other is burning in the fire. Dr. Darwin apprehends, that the structure of these large vegetable absorbents, which have been erroneously called air-veils, consists of a spiral line,
line, and not of a vessel interrupted with valves; and in this respect it differs from that of animal lymphatics.

According to this writer, the proper air-vessels are horizontal vessels of large diameter, which pass through the bark of trees to the alburnum. Malpiglii has given a figure of these vessels, and Duhemel mentions fine horizontal perforations through the bark of trees, which he believes to be perforatory or excretory organs; and besides these, he takes notice of others, that are larger, standing prominent in the birch-tree, and piercing the exterior bark; which probably contain air during the living state of the tree. Dr. Darwin supposes, that the horizontal vessels first mentioned contain air, enclosed in a thin moist membrane, which may serve the purpose of oxygenating the fluid in the extremities of some fine arteries of the embryo buds, in a manner similar to that by which the air at the broad end of the egg is thought to oxygenate the fluids in the termination of the placental vessels of the embryo chick.

AIRA, Ais of Hippocrates and Theophrastus, hair-grafs, in Botany, a genus of the triandra digynia class and order, and of the natural order of graminum or grasses. Its characters are, that the calyx is a two-flowered, two-valved glume; the valves ovate-lanceolate, acute and equal; the corolla bivale, the valves like the former;nectary two-leafed, leaflets acute, gibbous at the base; the lamina have capillary filaments, of the length of the flower, with oblong anthers, forked at each end; the piliillum is an ovate germ, the styles actinomorphic spreading, with pubeceous stigmas; no pericarpium; the seed fibrous, crowned with the corolla. It differs from Melica, in having no rudiment of a third between each pair of floecules, the number of which varies. Martyn enumerates 14, and Gmelin, in his edition of Linnaeus, 25 species; some of which are naked or awlfuls, and others awned.

Of the former, Martyn specifies, 1. A. arundinacea, or reedy hair-grafs, with oblong panicle, on one side imbricate, and flat leaves, found in the Levant and in Cochinchina. 2. A. minutes, with loose panicle, almost level-topped, and very branching; an annual grass, found in Spain. 3. A. aquatica, water hair-grafs, with panicle spreading, flowers smooth, longer than the calyx, and leaves flat. This grass generally grows in the margins of pools and watery places, running in the water to a considerable distance, and is known by the purple or bluish colour of the panicles, and sweet taste of the flowers: perennial, flowering in May and June. This is the author of the Farmer's Dictionary, is the grass which contributes chiefly to the sweetness of Cottentom cheafe, and the finesse of Cambridge butter. There is a variety of this which grows in dry soils, with the calyces five-flowered, and the flowers very remote from each other. It occurs in sandy lands near Exmouth, about Northfleet in Kent, in Lancashire, and Yorkshire. In Dr. Withers's arrangement it is the poa diffusa; and Dr. Stokes supposes the poa retroflora of Mr. Curtis to be the same with this. Gmelin adds to the clas of the naked aica; 4. A. coelebs, with a ramose culm, racemose flowers, and hairy corolla. 5. A. sericeus, with dense panicle, smooth calyces, and ascending culm; the poa difflora of some authors. 6. A. hibisfera of some authors. 7. A. millettes, with very numerous panicles, with floecules in three, obtuse and distinct, and smooth articulated leaves. 8. A. agilisoides, with flowers turned to one side, with one valve of the corolla ovated and acuminate, and the other columnar and obtrude. Dr. Smith (Flor. Brit. vol. i. p. 83.) adds, A. crista, with panicle spicate, calyces longer than the peduncle, petals acuminated and unequal. It grows in high barren pastures and walls; perennial; flowering in July and August.

The awned aica enumerated by Martyn are as follow: 9. A. fabri, with leaves flat, panicle spicate, flowers awned on the middle; awn reflex and loose; found on the mountains of Switzerland, Savoy, Denmark, and Lapland; perennial. 10. A. cespitosa or hairy hair-grafs, with leaves flat, panicle spreading; petals villos, and awned at the base; awn short and short; growing in moist meadows and woods, perennial, flowering in June and July, sometimes trailing on the ground to the length of several feet, and the panicle exhibiting a beautiful purple silky appearance. Dr. Withers mentions a variety of this with panicle viviparous, flowering in October, and found on Highland mountains. This is apt to grow in tufts, and occasion irregularities in the surface of meadows. Cows, goats, and swine eat it; but horses are not fond of it. It is the roughest and coarseted hair-grafs that grows in pastures or meadows; and cattle will not touch it, unless compelled by hunger. It is called by the vulgar haflocks, rough-caps, and bull's faces. To get rid of it, the land should first be drained, and the tufts of this noxious weed pared off and burnt; and the ashes they yield will be a good manure. 11. A. flexuosa, or waved mountain hair-grafs, with leaves sectaceus, culms almost naked, panicle spreading trichotomous, peduncles flexuose, and awns geniculatae; perennial; flowering in July, and growing in heaths, woods, and barren pastures; eaten by horses, kine, and sheep. Dr. Withers fuggrets, that this is a variety of the A. montana, or rather the same in a more mature state. This is a principal grass on Banks Down, Mendip, &c. and is equally fine and nutritious with theep's fescue. It is of difficult cultivation. Dr. Smith (Fl. Br. vol. i. p. 85.) mentions two varieties; one with a panicle, legs spreading, and peduncles feebly flexuose. This is the A. montana of Hudson, Withering, Relham, and Leers, but not of Linnaeus. The A. festucus of Hudson does not differ from this; but the A. montana of Linnaeus is a very different grafs, and has not yet been found in Britain. The other has a culm more leavy, a white panicle, feebly flexuose, and grows in shady places. 12. A. montana, with leaves sectaceus, panicle narrowed, flowers hairy at the base and awned, awn twilled and very long; supposed to be a variety of the former; perennial, in July and August; a native of high heaths and shady pastures; eaten with avidity by sheep. A variety, called festucus, with awns twice the length of the florets, is mentioned by Hudson. 13. A. alpina, with leaves subulate, panicle dense, flowers hairy at the base and awned, awn short; growing on the mountains of Germany, Savoy, and Lapland. 14. A. vulgo, with leaves subulate, panicle long and narrow, flowers fescaulostrament, flagggy, awned; awn straight and short; found by Thunberg at the Cape of Good Hope. 15. A. consolens, grey hair-grafs, with leaves sectaceus, culm leavy, the upper one involving the panicle at bottom, like a spathe; awns clavated at the apex, shorter than the calyx; a native of sandy shores, on the coasts of Norfolk and Suffolk, the walls of Bafi, and the sandy fields of Germany and Piedmont; perennial, flowering in July; the avena consolens of Wiggers. 16. A. precurs, early hair-grafs, with leaves sectaceus, sheaths angled, flowers panicle-spiked, floecules sileels, naked at the base and awned on the back; found on dry commons, in ditches, on banks of streams, and in wet meadows; perennial, flowering in May and June, ripening its seeds in June; and called by Wiggers, avena spilota. It has a sweet taste; cows are very fond of it; and it is eaten by horses and sheep. 17. A. cryphioides, silver hair-grafs, with leaves sectaceus, panicle diversirachis, trichotonous, floecules.
AIR

floscules seifile, dor fal owm genieuate; a native of sandy
pastures, and heat of England, France, Switzerland,
and England, Germany, and Denmark; annual, flowering
in July. 18. A. auriculata, four-seed hair-grass, with leaves
flat, pale seed compound, spreading, callyces three-flowered,
floscules awned in the middle, awn elongated straight; a
native of New Zealand. 19. A. innotata, with palate
spreading, involucres with bristles at the base; floscules
awned; a native of Spain, on barren hills near Madrid;
annual, and flowering in June and July. To these Gmelin
dadds, 20. A. paludosa, with flat leaves, patent palate, flos-
cules hairy at the base, and the awn short and bent inwards.
21. A. fflavipes, with flliform leaves, erect palate, leaves
coloured, and awned beyond the middle. 22. A. jucunda,
with leaves fubulate, palate patent, very obtuse, awn
from the base of the length of the calyx. 23. A. jucnifil
with fesaceous leaves, erect palate, and villos floscules.
24. A. moenia, with fesaceous leaves, narrow palate, floscules
hairy at the base, awn fubterminal, shorter. 25. A. perpbrana,
with leaves fubulate-fesaceous, palate facted, one valve
of the corolla entire, plumo, and cufm erect. For the
propagation and culture of Air; See Grass. Gmelin’s
vol. ii. p. 135, &c.
Aira, See Melica, Poa, Cygnusurus, and Holcus.
Aira Cuprea, See Emarta.
Aira inedia, See Panicum.
Aira Vitis, See Cytisurus.
AIRAUD, in Church History, a foct of Arians, in the
fourth century, who denied the divinity of the Holy Ghost
with the Father and the Son.
They are otherwise called Aireaud, and are said to have
taken their name from one Airas, who distinguished himself
at the head of this party, in the reigns of Valentinian and
Graetian.
AIRANO, in Geography, a town of Italy in the
Milanese, 10 leagues south-east of Como.
AIRAY, Peter, in Latin Erodus, in Biography,
Lieutenant-criminal in the prefect of Angiers, was born
there in the year 1556, and executed the office in a manner
that obtained for him the title of the “Rock of the
Assisted.” He died in 1601, and left several treatises. His
eldest son was educated by the Jesuits, and retained in their
society, notwithstanding all the remonstrances and efforts of
AIRAY, Henry, an English divine, was born in Wel-
mereand, educated under the care of Bernard Gipin,
and sent to St. Edmund’s Hall, Oxford, in 1579, at the age of
nineteen years. He was afterwards removed to Queen’s
college, where he was successively fervitor, fellow, and mas-
ter. In 1598, he was chosen provost, and in 1606, vic-
chancellor of the university. He was a constant and zeal-
ous preacher, and a zealous Calvinist. He was much ef-
tereed for his learning, gravity, and piety, and for his
industry in discharging the duties of his office; and died in
1616. The following treatises, written by him, were pub-
lished after his death, viz: “Lectures on the Epistle to the
Philippians, 410. 1618.” “A Treatise against Bowing at
the Name of Jesus.” And, “A just and necessary Apo-
AIRGE, in Geography, a town of France, in the depart-
ment of Landes, formerly Gascony, and in the district of St.
Sever, situate on the Adour, 155 leagues from Paris, and 5 leagues
south-east of Mont-de-Marsan. It is a very ancient town,
and the see of the suffragan bishop of Auch, containing
241 parishes. Its ancient name was Vicus-Junia, having
been taken by the Romans, under the command of Julius
Caesar. The Visigoths afterwards took possession of it;
and Alaric, one of their kings, adorned it and fortified it
with a caftle. It has often since changed masters, and
suffered much during the religious wars in France. N. lat.
43° 31’. E. long. 5° 26’.
AIRE, a town of France, in the department of Pas-de-
Calais, formerly Artois; situate on the Lys, fortified by a
caftle, and communicating with St. Omer by a canal; and
also with the fort St. Francois. It was taken by the allies
in 1710, and refotted to France by the peace of Utrecht.
It is 9 leagues from St. Omer, 9 from Dunkirk, and 51
north of Paris. N. lat. 50° 30’. E. long. 2° 17’.
AIRE, a river of England, bifoming into the Humber, and
navigable to Leeds in Yorkshire.
AIRING, in the general fene of taking, or going into
the fresh air, is too well known to need any explanation.
See Aerophobia.
The word is particularly used for exercising horses in
the open air, which is of the greatest advantage to these animals.
Many of the difeases to which horses are liable, are brought
on by negleeting to exercise them.
AIRING a horse, should be distinguished from that species
of exercise ufed in training horses for racing, as this is con-
ducted at regular periods, and has in view not only the
general health, but particularly the acquirement of wind
and speed. Airing a horse, in a general way, may be done
at any part of the day, but when the heat of the sun is
intenfe, as by this means he perspires too much, and is ren-
dered irritable from the flogs and bites of insects. It is
better to give a horse a moderate airing twice a day, than a
longer one at one time. It should be avoided immediately
after a full meal; at thefe times the chill has not room to
expand, therefore the wind is endangered; the food is like-
wise hurried, by the pressure of the abdominal muscles, too
soon through the flomach to be digefted, and too foon through
the intestines, to be properly absorbed by the flomachs.
In an airing the horse should ftrike be walked, then
trotted, and slowly moderately galloped; it is usually prac-
ticed in a faddle-biide, the propriety of which depends on
the horse’s mouth, and the hand of the rider; if the groom
is not perfectly acquainted with the art of riding with a
fine hand, which few of them are, a large bitted saddle
should be used. An airing field could be continued long enough
to give a horse an aperitif, but not to long as to weaken his
flomach. When horses are very fat it should be continued
longer, that the absorbents may be stimulated to take up
more of the aedes of the body. In foul, gross, greatly fomahes,
the airlings should be gentle, but continued for fome time;
in fawy this should be particularly observed. And in all
difeases where there appears a defect in the absorbents, the
exercife should be gentle, continued long, and frequently
repeated. The numerous caution made use of to air such
particular horses, at particular times, have their foundation
in whines and caprice: reafon and science point out, that
any time between the meals, when the fun is not in its full
luifer, is proper for airing them. See Exercise.
AIROLA, in Geography, a town of the canton of Uri,
in Switzerland, six leagues north of Altorf.
AIRON, a river of France which runs into the Loire
near Decife.
AIRS, in Heyenmabpfi, denote the artificial or prafticed
motions of a managed horse.
Such are the demi-volt, curvet, caprio, croupade, hal-
tadle, flep, and leap; also, advancing, yerking, and bounding.
Some authors take airs in a more extensive fene; and di-
vide them into low and high.
The low airs include the natural paces, as walking, trot-
ing,
ting, galloping, and term-a-terne. To which may be added, prancing, fledging, flapping, and turning.

The high, or raised airs, are all such motions as rise higher than the term-a-terne; as the demi- volt, curvet, &c.

AIRVAULT, in Geography, a town of France, in the department of the two-Sevres, in the district of Thouars, four leagues north-north-east of Partheny.

AIRY triplicity, among Astrologers, the signs of Gemini, Libra, and Aquarius. See Triplicity.

AISA, in Geography, a town of Spain, in the Kingdom of Arragon, two leagues and an half north of Jaca.

AISCH, a river of Germany, in Franconia, which rises near Isleheim, and discharges itself into the Regnitz, between Bamberg and Forcheim.

AISE, a river of France, which runs into the Orne, three leagues above Caen.

AISEAU, a town of Germany, in the circle of Westphalia, three miles south-east of Chaleleit.

AISEDABAD, a town of Persia, in the province of Irak Agemi, 22 leagues north-north-east of Amadan.

AISEREY, a town of France, in the department of the Cote d'Or, in the district of St. Jean de Lofie, three leagues south-east of Dijon.

AISEY-LE-VEC, a town of France, in the department of the Cote d'Or, in the district of Châtillon, 11 leagues south of Châtillon.

AISIAMENTA, in Lact. See Easement.

AISNE, in Geography, a river of France, which rises in Champagne, runs by Soissons, and falls into the Oise above Compiegne. It gives name to a department which is one of the five formed of the ci-devant Soissons, le Beauvaisis, and le Vexin Francois; and it is one of the five into which the ancient Ille de France is divided. It is bounded on the north by the department of the North; on the east, by that of the Ardennes, and part of that of Marne; on the south, by part of Marne, and the department of Seine and Marne; and on the west, by the departments of the Oise and Somme. The extent is about 1,467,881 square acres, or 749,183 hectares; its population about 408,172 individuals; and it is divided into five communal districts. Its chief town is Laon.

AISTULPH, or ASTULPHUS, in Biography and History, king of the Lombards, was chosen to succeed his brother Ratchis, who resigned the crown, A.D. 751; and by his gallantry in the field and wisdom in council advanced the kingdom to a pitch of greatness, which occasioned its total ruin. Having ratified a peace with pope Stephen, and extended the term of it for 40 years, he seized the opportunity, which was afforded him by a war with the Saracens and Bulgarians, that engaged the attention of the eastern emperor Constantine Copronymus, to invade the exarchate of Ravenna, which he subdued, with all its dependencies, and added to the kingdom of the Lombards. Thus terminated the exarchate, which was reduced by the Lombards to a dukedom. Aistulphus proceeded to invade the Roman dukedom, and marching towards Rome, threatened to plunder the city and massacre the inhabitants, unless they acknowledged his sovereignty and paid him a yearly tribute. Pope Stephen was alarmed, and applied to the emperor for succour; but deriving no effectual assistance from the emperor, he retired to Pepin, king of France, who marched an army into Italy, and after routing Aistulphus and his army invested Pavia, where he had taken refuge. The Lombard king was glad to purchase peace by reuniting all the places he had taken, and even the exarchate, which was surrendered by Pepin to the fee of Rome. But as soon as Pepin had departed, the Lombard king, in violation of his engagements, and regardless of his hostages, approached Rome with his army and closely besieged it. Stephen renewed his application to his protector, and by the suppliant style of the letters which he addressed to him engaged him again to have recourse to arms. Aistulphus threw himself a second time into Pavia, whither he was pursued by Pepin, who closely invested the city. The siege was preceded with vigour, and Aistulphus reduced to such distress, that he was under a necessity of suing again for peace, which he obtained upon a promise to perform immediately the treaty that had been made the year before, and as an additional security to deliver up to the pope the city of Commanchio, which was a place of great importance. Upon this Pepin renewed his donation to the pope; yielding to St. Peter and his successors the exarchate, Emilia now Romagna, and Pentapolis now Marc'Ancara, with all their cities, to be held by him for ever. See Exarchate. Aistulphus, lamenting the humbled fate to which he was reduced, began again to prepare for recovering by force what he had been obliged to resign; but in the midst of his hostile preparations, he was killed whilst he was hunting, A.D. 756, and left the male line. The code of laws which he published in the 5th year of his reign is still extant. Anc. En. Hist. vol. xvii. p. 452.

AISNE, in Geography. See THEALIA and ELEB.

AISTOCZU, a considerable river of Lower Asia, which rises in Mount Taurus, and falls into the south part of the Euxine sea.

AITON, WILLIAM, in Biography, an eminent botanist and gardener, was born in 1731 at a small village near Hamilton, in Lanarkshire, in Scotland. Having been trained betimes in the science and practice of horticulture, he came into England in 1754, and was engaged as an agent by Mr. Philip Miller, well known as the author of the Gardener's Dictionary, who was then superintendent of the physic-garden at Chelsea. In this situation he soon attracted notice, and in 1759 he was recommended to the Prince's Dowager of Wales, as a fit person to manage the botanical garden at Kew. In this office to which he was then appointed he continued during life; and here he laid the foundation both of his fame and fortune. As the garden at Kew was designed to be the repository of all the curious plants, that could be collected from the various quarters of the globe, Mr. Aiton had the most favourable opportunity for indulging his taste, and employing his care and skill in their cultivation; and in so doing he acquired distinguished reputation amongst the lovers of this science, and the particular esteem of his royal patrons. Under his superintendence Kew gardens became the principal scene of botanical culture in the kingdom. In 1783 Mr. Aiton was promoted to the more lucrative office of managing the pleasure and kitchen gardens at Kew, which he was allowed to retain in connection with the botanical department which he had before occupied. In 1789 he published his "Hortus Kewenesis, or Catalogue of the Plants cultivated in the Royal Botanic garden at Kew," in three volumes 8vo, with 13 plates; a work, which had been the labour of many years, and which justly entitled him to respectful commemoration among the promoters of science. The number of species, contained in this Catalogue, is between 5 and 6000. A new and curious article in it relates to the first introduction of particular exotics into the English gardens. The system of arrangement is that of Linnaeus, with such improvements as the advanced state of botanical science required. To Sir Joseph Banks, Dr. Solander, and Mr. Dryander, Mr. Aiton respectfully
spectively acknowledges his obligations for subsistence in compounding this celebrated work. The " Hortus Kewensis" was much valued by the best judges, and a large impression of it found a rapid sale. Notwithstanding the temperament and activity of Mr. Aiton, he laboured under the incurable malady of a feverous liver, which occasioned his death in 1793, in his 62d year. His chief love, devoted to the fame purity, and distinguished by his talents, was appointed, by the king's own nomination, to all his father's employments. The private character of Mr. Aiton was highly estimable for mildness, benevolence, piety, and every domestic and social virtue. He was interred in the church-yard of Kew, and died a most respectable concourse of friends. Gen. Bot.

AITTENBA, in Geography, a small town of Spain in Catalonia, the capital of a marquisate.

AITZEM, Leo, in Biography, an eminent historian and diplomatist, was born at Doccum, in Friesland, in the year 1660. He was councilor of the Hans Towns, and their resident at the Hague for 40 years; where he died in 1699, with the reputation of an excellent linguist, an able politician, and amiable manners. His "History of the United Provinces," written in Dutch, contains a large collection of treaties of peace, memoirs of ambassadors, letters, capitulations and other public acts, which is very valuable. The history is more faithful than elegant, and as far as it concerns religion, it is written with impartiality. The work was published in 15 volumes 4to, and was succeeded by another edition of seven volumes in folio. The period which the history comprehends begins with the year 1621 and terminates with 1663, and it has been continued to 1692.

Gen. Diet.

AUBATIPITA BRASILIENSIN, in Botany, the name of a shrub that bears a black fruit like an almond, which yields much oil.

AJUGA, Bagula of Jussieu, Tournefort and Miller, bagis, a genus of the dianthina gymnophylla clas and order, and of the natural order of verbascum or labiate. Its characters are, that the calyx is a one-leafed, short perianthium, cut half-way into five clefs, with the segments nearly equal; the corolla is monopetalous and ringent; tube cylindrical and bent in, the upper lip, very small, erect, bifid, obtuse, lower large, spreading, trigid, obtuse, middle division very large and obcordate, five ones small; the laminae have pubescent, erect filaments, longer than the upper lip, antithesis twin; the pistillum has a four-parted germ, style bilobate, and with respect to situation and length as in the lamina, limbanus two, slender, the lowest shorter; one pericarpium, the calyx, which is converging, folders the seeds, which are somewhat oblong. There are six species, viz. 1. A. orientalis, calthia bugis, with flowers inverted; first brought into Europe from the Levant by Tournefort, since obtained by Thunberg in Japan, and by Loureiro in Cochinchina; cultivated in 1732. Of this there are two or three varieties, differing only in the colours of their flowers. 2. A. pyramidalis, pyramidal bugis, of which the spike is a quadrangular villos pyramid, the leaves approximating, the root-leaves very large, the bracteae nearly entire; binomial, flowering in April, or with us later; a native of Italy, France, Germany, Switzerland, Sweden, Denmark, Wales, and Scotland. 3. A. alpina, alpine or mountain bugis, with stem simple, leaves smooth, unequally dentated, subuliform, the remote verticillii bearing many flowers; growing naturally on the Alps, and in mountainous places in Carpathia, Austria, and on the summit of a mountain near Cafferlo, Derbyshire; admitted into gardens for variety, and propagated by its trailing stalks; requiring a moist shady situation; perennial, and flowering in July. This is the A. pyramidalis of Hudson, and the A. genevensis of Withering. 4. A. genevensis, Geneva bugis, with leaves downy, streaked with lines, lowermost narrower, calyces shaggy, bracteae or floral leaves generally three-lobed; growing wild about Geneva, and in many of the southern countries of Europe; cultivated in 1759, by Miller. 5. A. reptans, common bugis, smooth, with solitary stem, and creeping by runners; perennial, flowering in May; growing in moht meadows, pastures, and woods in most parts of England; becoming somewhat hairy in high and dry situations, with a rounder stem and shorter creepers. Prof. Martyn mentions two varieties, one with a white and the other with a pale purple flower, which grow in several parts of Westmoreland; but they differ only in the colour of their flowers from the blue fort. The common bugis, called by official writers, consolida media, or middle confudant, is recommended as a vulnerary herb, both internally and externally. For this purpose, infusions of the leaves, or the expressed juice, have been administered; and also as mild astringents and corroboration of fluxes and other disorders. Decotions of them have been communicated by Riverius and others in phthisis and internal ulcerations. Malouin recommends a gargarium of the root in the angina. The roots appear to be considerably astringent, both by their taste and by their striking a black colour with solution of calomel by vitriol. Lewis Mat. Med. Murray Mat. Med. vol. ii. p. 154. 6. A. decumbens, Japonice bugis, decumbent and villous; leaves ovate and toothed; with flowers in whirs, small and blue; claffed by Loureiro as a variety of A. reptans.

To this genus Dr. Smith adds (Flor. Brit. vol. ii. p. 605.) the tueerie chamaepyss of Linneus, the ground pine of English writers. Accordingly the A. chamaepyss is described as having a spreading ramose stem, trifid linear entire leaves, and solitary axillary flowers. It grows in sandy fallow fields in Cambridgeshire and Kent; is annual, and flowers in April and May. The leaves of ground pine are moderately bitter, and of a ruminous smell, approaching in this respect, as well as in their external form, to those of the
the pine-tree. Their virtues are extracted both by water and spirit, but most perfectly by the latter. The aqueous
linacre is yellowish, and the spirituous green. The wa-
tery extract is bitter and acrid; the spirituous is lightly
toeth and warm. The oil, collected by distilling large
quantities of the herb, approaches in quality to that of
parrotine. The leaves are recommended as aperients, and
corroborants of the nervous system; and are said to be
particularly serviceable in female obstructions, paralytic dis-
orders, and when continued for a long time, in rheumatic,
itchidic, and gouty pains. It was denominated by some
of the ancient botanists *P. a. auritlicina*, from its use in ar-
thritic pains. It has been recommended by foreign writers
in flow fevers, asthma, and apoplectic seizures; and also
in inflammations of the viceria and jaundice; and externally
for cleaning and confolating ulcers, as well as for an antido-
to the cancer. But its medical reputation has, in later
times, considerably declined. Lewis's Mat. Med. Murray

The firft species of Ajuga may be propagated by seeds,
rown when they are ripe in a pot filled with earth, and
placed in a shady situation till Autumn, and then removed
under a frame. In the Spring, they should be transplanted
into separate pots. In the hard frost of Winter they
should be covered. This species may be more slowly
increased by off-sets, of which it affords but a few. The
fixth. fort may be propagated in the fame manner. As for
the root, they are hardy and easily multiplied by the side
shoots: they delight in a moif shady situation, and are apt
to fpread too much. Martyn.

**AJURU PARROT, Phittacus Astilbus, in Ornithology, the
Ajuru-Curau of Maregrave, the Acuru-Courau of Buffon,
the middle-sized parrot of Willughby, and the common
Amazonas parrot of Latham, is of a green colour, lightly
spotted with yellow; with a blue front, blood-red shoulders,
and flesh-coloured orbits. It is 12 inches long, and its body
about the size of a pigeon: the back has a number of
tawny yellow feathers, scattered through its green plumage.
The face is yellow, with a blue forehead and white crown;
the tail-quills are green with paler tips: the first, second,
and third on each side are red on their inner webs near the
base; the outer web of the first being blue: the shoulders
are either tawny or blood-red; the primary wing-quills are
black, with blue tips, the outer webs being green, and
the inner black: the first four or five of the secondaries
have their outer webs red near the base; the bill is black
at the tip. This species of parrot inhabits Amazonia,
Guiana and Brazil; and it has several varieties, to the four
of which the above description is applicable: c. g. 1.
The A. of Jamaica, with the head and breast yellow,
the front and chin blufh, the edges of the wings and vent-
red. This is the phittacus viridis melanochrous of Aldro-
vand, the black-billed green parrot of Willughby, and the
Jamaica parrot of Brown and Latham. 2. The main A.
parrot, with the left wing coverts red; the crown yellow,
the cheeks and chin paler; the forehead blue; the under
half of the five middle wing-quills, and the inner webs at
the base of four tail-quills on each side, red. This variety
inhabits Guiana and Amazonia. 3. Brazillian A. parrot,
with cap blue, variegated with black; a yellow spot on
the crown, and one on each side below the eyes, and a blue
chin. This is the pf. Brasili cyanocophalus of Briffon,
the Ajuru-curau of Maregrave, Ray and Willughby,
and the blue-topped parrot of Latham. The primary wing
quills, according to Mr. Latham, are variegated with
yellow, red and violet blue. It inhabits Brazil. 4. Va-
ried A. parrot, with the crown, cheeks and chin yellow,
and the front blue. The crown is varied with blue, the
fem and upper part of the back with yellow, and the bill
is ash-coloured. This is the Ajuru-Curau succedens of
Maregrave and Ray, and the West-India green parrot of
Edwards and Latham. 5. Amazonian A. parrot, pale
green, with a pale yellow front and tawny temples. This
is the pf. amazoonicus of Gilchrist, and the Brasilian yellow
fronted parrot of Latham. It inhabits Brazil and Amazonia.
This variety is almost twice the size of those above-
mentioned. 6. Great A. parrot, green, with a blue fore-
head; the crown, checks and chin, and middle of the belly
yellow. It is nearly as large as the former, and inhabits
Brazil. 7. Yellow-necked A. parrot, green, with yellow
head and neck, and red shoulders; of the size of the
former, and like it, the wing-quills are marked with a red
spot, and the lateral tail-quills are red at the base. 8.
Counterfeit A. parrot, green, variegated with yellow, hav-
ing a blue forehead and red shoulders. It inhabits Brazil.

**AJURU-CATINGA**, the Guiana red billed parrot,
a variety of the *phittacus rubrifrons*, the *phittacus aquorum*
*Lupurium infide* of Briffon, the Guiana green parrot of Bau-
croft, and of Latham; has the bill, legs, feet and claws of
a whith red colour, and the orbits ash-coloured. It
inhabit South America; and is about the size of a thrush,
and the irides have two coloured circles, of which the outer
is reddish, and the inner ash-coloured.

**AJURU-PARA**, a Brasilian species of parrot of a
small size, all over of a beautiful green, and with white legs,
a white beak, and white skinny circles round its eyes.

**AJUS LOQUENS, or Locutius, i.e. a speaking voice,
in Mythology, the name of a Roman deity, to whom a tem-
ple was erected at Rome, on the following occasion.—M.
Cedratus, a plebeian, informed the tribunes, that, as he
was passing through the New Street in the night, he heard
a supernatural voice near the temple of Vesta, which warned
the Romans of the approach of the Gauls; but the warn-
ing was disregarded on account of the meannefs of the
perfon who reported it, in confequence of which, the Ro-
mans suffered very much from their invasion. Camillus,
however, delivered them, and advised them to expiate the
offence by erecting a temple in the New Street to this ima-
ginary deity. Cicero, de Divin. lib. i. § 45. Oper. tom. iii.
Drakenb.

**AJUTAGE, or Adjutage, formed of the verb, ajou-
ter, to adapt, in Hydrocles, part of the apparatus of an
artificial fountain, or *jet d'eau*; being a sort of tube, fitt-
ed to the mouth or aperture of the vessel, through which
the water is to be played, and by it determined into any
figure and direction.

It is chiefly the diversity in the ajutages, that makes the
different kinds of fountains.—And hence, by having several
ajutages to be supplied occasionally, one fountain comes
to have the effect of many.

Marriott inquires into the beft kind of ajutages, or *spouts*,
for *jets d'eau*, affirming, from experiment, that an even po-
lihed round hole, in the end of the pipe, gives a higher jet
than either a cylindrical, or a conical ajutage: of which,
however, the latter is the better. Vide Trait. du Mouem.

The quantity of water discharged by ajutages of equal
area, but of different figures, is the fame. But for thofe of
the fame figure, and different sizes, the quantity discharged is

3 R
directly proportional to the area of the aljutage, or to the square of its diameter, or of any side or other linear dimension; thus, an aljutage of a double diameter or side will discharge four times the quantity of water, of a triple diameter, nine times the quantity &c.; supposing that they are at an equal depth below the surface or head of water. But if the aljutages be at different depths, the celerity with which the water flows, and consequently the quantity issuing in any given time, is directly proportional to the square root of the altitude of the head, or the depth of the hole, so that at four times the depth, the celerity, and of course quantity, are double; at nine times, triple, &c. It has been found by experiment, that the jet is higher or lower according to the size of the aljutage; that a circular hole of an inch and a quarter in diameter jets highest; and that it is worse as it recedes from that size. Experience also shows, that the pipe leading to the aljutage should be much larger than the aljutage itself; and if the pipe be long, it should be wider according to its distance from the aljutage. Encyclopedic Physique, tom. i. p. 152. Hutton's Dict.

For the various sorts of aljutages, their structure, application, &c. see Fountain. See also Fluid and Jet d'Eau.

AIX, in Geography, a city of France, the capital of the department of the Bouches du Rhone, formerly Provence, and one of the most pleasant and belt-built cities in the kingdom. It is situated north of the river Arc, between hills planted with olives and vines. It is said to have been founded by C. Sextius Calvinus, a Roman confid, who established a Roman colony in it A.D. 630, about 124 years before Christ, and called it Aquae Sextiae from his own name, and the warm baths which he found there. It is rather populous than large; its houses are well built, and its streets are straight and well paved; and within the city there is a spacious walk called Orbitelle, which consists of three rows of trees interposed with fountains, and surrounded by many handsome and spacious buildings. The preacher's square, as it is called, is seated on the side of a hill, about 160 yards long, encompassed with trees and lofty houses built with stone. Of the public buildings some of the principal are the town-hall, the hall of audience, the hotel of the city, the cathedral church, which is a fine Gothic structure, the church of the fathers of the oratory, the chapel of the blue penitents, and the convent of the preachers, in whose church is a silver statue of the Virgin Mary, almost as big as life. There are also other churches and buildings which contain many paintings and other rarities. Adjoining to the baths, which were re-discovered in 1704, there are many edifices that have been raised at a great expense for the accommodation of those who use the waters. These waters were formerly supposed to possess peculiar virtues in cures of deformity; as several altars consecrated to Priapus, and bearing inscriptions expressive of gratitude for his assistance, have been dug up in their vicinity. Aix was an archbishopric with five suffragans, and 84 parishes; and it was the place of resort of the nobility of Provence and of Itinerant men. The neighbourhood affords excellent wines; but its chief article of trade is oil. Some flours are also manufactured here. It is distant five leagues north from Marseilles, and 163 south-east of Paris. N. lat. 43° 21' 35". E. long. 5° 26' 15".

AIX, a town of France, in the department of the Upper Vienne, in the district of Limoges; two leagues south-west of Limoges.

Aix, Aquae Gratianae, or Schanvax, Allobrogum, a small town of Savoy, situate near the lake of Bourget, between Chambery, Annecy and Rumilly, with the title of a Marquisate. The hot baths, which were originally constructed by the emperor Gratian, are free of access without expense, and are much frequented. In this place are seen the ruins of a Roman triumphal arch. N. lat. 45° 40'. E. long. 5° 48'.

AIX, a small island on the west coast of France, between the Isle of Oleron and the Continent; about 12 miles north-west of Rochefort, and as far south-south-west of Rochelle. Its fort was destroyed by the English in 1757, and again in 1761, but afterwards rebuilt. N. lat. 40° 5'. E. long. 1° 8'.

Aix en Othe, a town of France, in the department of the Aube, in the district of Eyvry; five leagues west of Troyes.

Aix d'Angoulême, a town of France, in the department of the Cher, in the district of Bourges; three leagues north-east of Bourges.

AIX-LA-CHAPELLE, a free Imperial city of Germany, in the circle of Wallphalia and duchy of Juliers, and the capital of the department of Koer. This is a very ancient city; and appears from the testimonies of Cæsar and Tacitus, to have been occupied and fortified by Roman colonies in their wars with the Germans. It was called in Latin Aquis-Graniun, or the waters of Granus, Aquæ, and Urbs Aquenia, in German, the city of Aachen or Aachen, and also Aach; and derived its name from its warm baths, which have been long held in high estimation. By the French it is denominated Aix-la-Chapelle, by way of distinction from other places called Aix, on account of a chapel of the Holy Virgin built by Charlemagne, which repaired and beautified the city, which had been destroyed by the Huns in the reign of Attila in 451, and who made it the place of his usual residence. The king of the Romans or emperor, was generally crowned in this city, as the place appointed by the golden bull for this purpose; and on this account called the Royal city; and it is the depository of the sword of Charlemagne, the belt, a book of the gospels, and other jewels of the empire, that are used in the ceremony of coronation. Charles V. was crowned here in 1520, and Ferdinand his brother was crowned king of the Romans in this place in 1531. Charlemagne died and was buried in this city, to which he had always manifested a peculiar attachment, and on which he conferred many signal privileges. On the Rhinenh bank, in the college of the cities of the empire, and among the Imperial cities which have a seat and voice at the Diet of the circle of Wallphalia, Aix-la-Chapelle poises the second place; and it lays claim to the first on the Rhinenh bank. The town is situated in a valley, and though surrounded with mountains and woods is not unfavorable. It consists in reality of two cities, enclosed one within the other. The inner city, which is the most ancient, is flanked with ten towers, and is about three quarters of a league in circumference; the outer, founded about the year 1772, has eight gates, and the circuit of it is about two leagues. There are several ravines which run through the city, and 20 public fountains, besides several private ones. The principal buildings, which are constructed of stone from quarries in the vicinity of the town, are the fladt-houte and the cathedral. The fladt-houte is adorned with the statues of all the emperors since Charlemagne; and in the front of it, there is a fountain, on the top of which is placed the statue of this emperor, made of brass gilt, holding in his right hand a sceptre, and in his left a globe. The upper story of this building consists of one room, 162 feet long and 60 broad, in which the newly elected emperor formerly entertained all the electors of the empire. The government of this city is entrusted with the great and little.
fate; the former composed of 129 persons, who judge in
criminal cases, and the latter of 41 members, who have ju-
ridication over the police and commerce of the city, and the
management of the public revenues. The duke of Brabant
is protector of the city; and the duke of Jutère is borough-
master or perpetual mayor of the burgesses. The title of its
magistracy is that of burgomaster, sheriff, and council of the
holy Roman Imperial free city of Aix-la-Chapelle. The
prevailing religion is the Roman Catholic; and the Protestant
inhabitants, both Lutherans and Calvinists, not allowed the
free exercise of their religion within the city, celebrate their
worship at Vaels, about an hour's journey from the city in the
duchy of Limburg. The manufactures of the city are
those of cloth, copper and brass. Councils have been held
in this city in the eighth and ninth centuries, and treaties
of peace have been concluded here; particularly those between
France and Spain in 1665, and between France and England,

It was taken by the French in 1792, lost after a severe
battle in 1793, and retaken in 1794. It is 21 miles from
Spa, 30 well from Cologn, and 36 north-east from Liege.
N. lat. 51° 55'. E. long. 5° 54'.

Aix-la-Chapelle, says Mr. G. Forster, in his Travels 1792,
which once contained above 100,000 inhabitants, has not
now a third part of this number, and has lost all its ancient
wealth and prosperity; owing partly to the rise of rival
towns, but principally to religious intolerance and a bad
government. The streets now swarm with beggars, and the
morals of the people are licentious and corrupt. Those
whose skill and industry might have enriched the city are
driven from it by the partial and oppressive conduct of the
guilds, and have established their manufactories in other
places, where they enjoy greater liberty. Thence, he adds,
of Burghheid, Vael, Eupen, Monjoia, and of other places
in the duchy of Limburg, are in a very flourishing state;
the wool is imported from Spain, and the cloth is exported
chiefly to the Levant. Vael, which 30 years ago, was an
inconsiderable village, is now become a respectable town;
the protestants, weary of the oppression and bigotry which
they had experienced at Aix-la-Chapelle, were easily induced
to settle in a place where they were allowed the advantages
of religious freedom; and it has now five different churches,
in which Roman Catholics, Lutherans, Calvinists, Baptists,
and Jews, worship the Deity according to their several fen-
timents, and live peaceably with each other.

AIX-LA-CHAPELLE, or AIX Waters. Therme Aqui-
gramenfer.

The thermal sulphureous waters of Aix-la-Chapelle
have long held a most distinguished place among the min-
eral springs of Europe, and have not a little contributed
to the celebrity and opulence of this ancient city.

These mineral waters rose to very high reputation in the
time of Charlemagne, who made Aix his Imperial residence;
and he appears to have much delighted in the use of its
baths, which he rebuilt and improved.

The hot sulphureous water rises in great abundance from
several copious springs in different parts of the town; and
is more than amply sufficient to supply the numerous baths
and refectories in which it is collected. The principal spring
is enclosed in a square stone cistern, the upper part of
which is vaulted and contracted in its dimensions; and
over the top a large stone is fitted in, and closely cemented,
to prevent the escape of the sulphureous vapours, on which
depends so much of the efficacy of the water. A re-
markable circumstance takes place in this cistern, which is,
the actual sublimation of a quantity of pure sulphur, which
is carried up from the water along with the sulphureous
gas, and is deposited beneath the upper stone, to which it
adheres in the form of a fine powder. This is taken out
from time to time, and sold under the name of Aix ful-
phur.

The baths of this city are numerous, and very commo-
dious for the purpose of warm and vapour bathing. The
natural heat of the water is sufficient for both these pur-
poses; and for the latter, openings are made in the brick
chambers that convey the water to the baths, through
which the vapour ascends. These vapour baths are so con-
structed that the whole, or any part of the body may be
exposed to its action; and likewise many of the baths are
furnished with pumps, from which the hot water may be
dished on any part of the patient. This operation is
known by the technical name of the douche.

Aken water posesses very striking sensible properties,
particularly to the feeling and the smell. The water rises
with great rapidity through the springs; and at the same
time sends forth very copious air-bubbles, which break
on the surface with a slight explosion. It is at first per-
fectly clear and colourless, and emits a large volume of
steam, mixed with sulphurated hydrogen gas of great vol-
atility and pungency. The odour of this vapour, (which
resembles that of Harrowgate water,) is so powerful as to
be perceived by strangers at a considerable distance from
the spring head. The inhabitants, from long custom,
seem to regard it.

The temperature of Aix water is various, according to
the distance from the spring at which the observation is
made. The highest is about 143° of Fahrenheit; and at
the pump, where it is drawn for drinking, it is about 112.
The heat is therefore so great, that the water requires to
stand for 15 or 18 hours before it can be used as a bath.

This water, though perfectly clear when first drawn
from the spring, becomes turbid and somewhat milky as
it cools, and deposits a calcareous sediment, at the same time
it loses its sulphureous smell. To the touch, the water is
soft and somewhat fuscous and white, owing doubtless to
the small quantity of soda which it contains. It will even, in
some degree, lather by agitation; and is used for fulling
and cleansing wool and linen, to which also, the heat
much contributes.

The chemical analysis of this water is curious and in-
teresting. The most striking feature is its gaseous contents,
which are a small quantity of carbonic acid, but especi-
ally much sulphurated hydrogen gas; not merely in the flate
in which it is found, in the cold sulphurated waters of Great
Britain, but highly super-saturated with sulphur, which
is sublimed in a solid form, as we have just mentioned. The
whole of the sulphur contained in the water is volatilized
by evaporation, for no traces of this inflammable substance
are to be detected in the refiduum of any quantity of the
water boiled down to dryness.

The solid contents of this water are few. The most
important of these is a quantity of uncombined soda, suf-
ficient to give the water the properties of a very dilute
alkaline solution; and which probably afflicts in the union of
so large a portion of sulphurated hydrogen, and causes it
to adhere to the water with some more force than it
would do if no alkali were present. Hence it is, that
even after the water has stood for many hours in the baths
to cool, it still retains enough of the sulphureous vapour to
give it all the requisite medical virtues. The other solid
contents are, a small quantity of common salt and car-
bonated lime, which last is deposited as the water cools,
and the carbonic acid escapes.
No traces of metal of any kind are discoverable in this water. The solid content of Aix water are variously estimated as to quantity. From Bergman's analysis, we may reckon the following to approximate pretty accurately to the truth: A wins pint (English weight and measure) contains

- Of carbonated lime, four grains and three quarters.
- Of common salt, five grains.
- Of carbonated soda, twelve grains.

The proportion of the gaseous contents has not been accurately determined with accuracy.

The above analysis will explain the appearances which take place with the common regents.

Solutions of lead and tannin, added to the hot fresh water, produce a black precipitate, composed of the sulfuretted metal, but mixed with the mineral; for, when the sulphations are added to the boiled water, the precipitate is white.

A piece of polished lead, suspended in the vapour of the water, is soon blackened, and in a few days corroded throughout.

Symp of violets changes to a green, even after the carbonate of lime has precipitated by cooling, indicating thereby the presence of an alkali in excess.

The effects of this water, as a medicine, are very striking and well established. Its immediate operation, when drank in a moderate quantity, is to raise the spirits, and in some persons to produce a degree of vertigo. This is the greater,\textit{e.g.} phorética pulvis, the hotter the water is. It afterwards proves diuretic, encreases perspiration, and keeps the skin in a soft, moist state, highly favourable to the removal of many disorders.

The waters are referred to for a great variety of complaints, particularly in the complicated disorders of the digestive and biliary organs, which follow a long habit of free living. They are also highly serviceable in diseases of the kidneys and bladder.

Aken waters, like all the most celebrated thermal springs, were long in high repute as baths, before physicians ventured to prescribe them internally. The vaat profusion of water which is thrown up, the high temperature which it possesses, its strong impregnation with sulphur in a very active form, and its alkaline ingredient, give it most valuable properties for external uses. It is employed to stimulate cold paralytic limbs; and to soften the rigidity of the joints and ligaments left by gout and rheumatism. It is also of great service in cutaneous complaints, to the cure of which, the sulphur and the alkali probably highly contribute. A long continued course of this, (as of every other) sulphurous water, cauases the whole body to acquire a smell of sulphur, and tarnishes silver kept in the pockets.

These waters have been imitated artificially by palling sulfuretted hydrogen gas through a hot and very weak alkaline water, but the imitation is attended with much difficulty.


AIXO, or AIXOS, flats or shallows within the second fort, at the entrance into Carthagea harbor, on the Spanish main, South America, which stretch out nearly south-south-west, towards the main land within the islands that lie before the harbour.

AIZENA, a town of France, in the department of Vendee, in the district of La Roche fur Yonne; ten leagues south of Nantes.

AIZOON, An \textit{Azo,} sempervivum, or ever-living, in Bohemia, a genus of the \textit{Isodium paestinum} clafs and order, of the natural order of \textit{fuculate}, and of the \textit{fucides} of Jussieu.

In Gimelius's Linnaeus, it is a genus of the \textit{polyandria pentagranum} clafs and order. Its characters are, that the calyx is a one-leaved perianthium, divided into five lanceolate, permanent segments; no corolla: the flama have very many capillary filaments, inserted by bunches into the fissures of the calyx, the anthers simple; the pistil lininum has a germ five-celled, superior, the styles five and simple: the Rigman's form, the perianth is a five-celled, five-valved, felling and reticule capsule; the seeds are several, roundish or kidney-shaped. There are ten species, \textit{e.g.} 1. \textit{A. cataria}, purplish-leaved \textit{A.} with leaves wedge-ovate, flowers fesile; the \textit{fucides} of Nilollus, and \textit{balle} of Plaknet: a native of the Canary islands; annual; cultivated in 1731. 2. \textit{A. lepidum}, Spanish \textit{A.} with leaves lanceolate; flowers fesile; the \textit{fucides} of Dillenius; an annual plant, growing naturally in Spain and Africa; a variety of this was brought from the Cape, and cultivated in 1728. 3. \textit{A. lanceolatum}, panieled \textit{A.} with leaves lanceolate, flowers panieled; biennial; growing naturally at the Cape of Good Hope; cultivated in 1750. 4. \textit{A. fomentosum}, with leaves linear-lancifolium, panieled dichotomous, flowers solitary, peduncled; brought from the Cape by Sparman. 5. \textit{A. paniculatum}, shaggy, leaves lanceolate, flowers fesile, branches erect. 6. \textit{A. perfoliatum}, downy, leaves inverely-ovate, conjoined, crystaline-dotted-flowers, peduncled. 7. \textit{A. gilvula}, hairy \textit{A.} shaggy, herbaceous, procumbent, leaves ovate, flowers fesile, ditrifol. 8. \textit{A. secundum}, shag-hoary, herbaceous, procumbent, leaves ovate, flowers fesile, imbricate, one-ranked. 9. \textit{A. strigosum}, shrubby \textit{A.} shrubby, erect, smooth, leaves lanceolate, flowers fesile. 10. \textit{A. rigidum}, stiff \textit{A.} shrubby, procumbent, downy, leaves ovate, flowers fesile, remote. The fix last species were brought from the Cape by Thanburg. The three first species may be raised on moderate hot-beds, in the spring; and the other species must be managed like other Cape plants.

AIZOON. See Sedum.

AIZU, in Geography, a town of Japan, and capital of a small country of the same name.

AKABA, a gulf or arm of the Red-Sea, formed by a tongue of land, which is part of Arabia, that separates this gulf from that of Suez; about 30 leagues long and 3 wide.

AKABAR, or CALAEL EKABA, a town of Arabia, on the gulf to which it gives name; 57 leagues south of Jerusalem, and 53 leagues east of Suez.

AKACHAN, a river of Siberia, which joins the Judoma. N. lat. 60° 8'. E. long. 139° 22'.

AKALCALAKI, a town of Georgia, in Asiatic Turkey, about 70 miles south-west of Teflis, and 88 miles north-west of Erivan.

AKALZIKA, or Acalziek, a town of Asiatic Turkey, in the province of Satabago, a country of Georgia. See Acalziek.

AKAM, or ACAM, a country of Africa, on the coast of Guinea, near the source of the Volta.

AKANIMA, a town or village of Africa, on the Ivory coast, near Cape Apolloia. It stands on rising ground, and commands an extensive sea and land prospect.

AKANNI. See Achem.

AKANSA, a town of North America, in South Carolina, situate on the river Milllpippi, near a river of the same name. N. lat. 36°. W. long. 89° 40'.

AKAGT, a town of Hindostan, in the district of Berar. N. lat. 24° 13'. E. long. 77° 39'.

AKARA, in Botany, a species of Calophyllym.

AKASAKI, in Geography, a small town of Tenylvania, between the river Carulna and a branch of that river, not far from Zainar.
AKASAKI, a town of Japan, in the province of Mikawa.
AKAST, a town of Japan, in the province of Fumia.
AKASSED-ASELM, a town of Egypt, marking the boundary of Aka and Africa.
AKAST, a town of Arabia, 25 leagues east of Jerusalem.

AKBAR, or Akker, Sultan, in Biography and History, the sixth of the descendants of Timur Bek or Tamerlane, who reigned in Hindostan under the appellation of Moguls, was born in 1542, and succeeded his father Hemşan in 1556. He was proclaimed emperor at Calaror, in the province of Lahore, and assumed the title of 

Having overcome the Patans and taken possession of Delhi, he was inaugurated in this city, and assumed the government which had been at first administered by his tutor, Boryram Khan. He then made himself master of the strong fortresses of Chitor, after a severe engagement with a rebel chief, and quelled other insurrections; and having obtained an interval of tranquillity, he made a pilgrimage, barefoot, to Azmir, at the distance of 200 miles, for the purpose of visiting the tomb of Haji Mondi, and of obtaining children by the intercession of this saint. During his abode at Fettipur on his return, he was informed of a rebellion at Guzerat, which hastened his march to this province; and having subdued the rebels, reduced the castle of Surat, and secured the province by fortifying Ahmed-abad, he returned to Hindostan. In this year he finished the castle of Agra at an expense of two millions 300 thousand rupees, laid out 1½ million on the walls and palace of Fettipur, and began to erect the stupendous sepulchres of his family at Schander, five miles from Agra. At this time he directed his views to the conquest of Bengal, and having, after a long siege, taken possession of Patan, he became master of the whole country. His next acquisitions were Kabul, Kandahar, Kaimir and Sind. Having united these countries to his empire, he employed a powerful army in the invasion of Dekan, which, notwithstanding vigorous resistance on the part of the queen of this country, subdued several provinces and annexed them to the Mogul empire. Whilst Akbar was engaged in the prosecution of the Dekan war, his prosperity was interrupted by a concurrence of domestic misfortunes. He was deprived of two of his sons, viz. Sultan Morad, in 1598, and Sultan Daulat, in 1604, by intestine quarrels; and his son Selim took the advantage of his absence, for seizing his treasures and marching a numerous army towards Agra, in order to take possession of his father's throne. Akbar, as soon as he received intelligence of his son's rebellion, hastened back to Agra, and having made ineffectual overtures of accommodation, in enforcing which his Vizir Aul Fazl lost his life, he resolved to turn his arms against Selim. But as he had lost his other sons, he once more attempted to persuade his son into submission. With this view he employed the tutor of Selim to convey letters to him, in which he reproached him for his rebellion; but at the same time declared, that, as he was his only son and heir, he was ready to receive him to favour. The father's letters and the tutor's arguments produced no effect; Selim returned to Agra and submitted. Akbar at first treated him with authority, but at length pardoned him, though he still retained fulgurances of his son's trickery. The emperor did not long survive this reconciliation. Being incensed against a Mirza, who governed one of his provinces, he resolved to remove him by poison; and for this purpose he ordered two pills of opium, in one of which there was poison. Having held these in his hand for some time, he gave one to the Mirza, and by mistake took the poisoned one himself. The consequence, notwithstanding the use of remedies as soon as the mistake was discovered, was fatal. When Selim paid his dying father a visit, he put his own turban on the prince's head, and gave him with his father Hemiau's sword; but on the 12th day after he had taken the poison, Akbar died, A.D. 1605, at the age of 63 years, and was buried in the family sepulchre near Agra.

Akbar was distinguished by his conquests, and by his success in reducing almost the whole of India to obedience. He was also one of the few sovereigns intitled to the appellation both of Great and Good, and the only one of the Mohammedan race, whose mind was so far divested of the liberal prejudices of the fossilical religion in which he was educated, as to be capable of forming a plan worthy of a monarch who loved his people, and was solicitous to render them happy. Although he was not attached by profession to any form of religion himself, he was not a persecuter of any. In 1582 he wrote a letter to the king of Portugal, preferred by Farter, and containing an avowal of sentiments liberal and enlightened; in which he declared that a translation of the Chrlilian scriptures into Arabic or Persian might be sent him, and at the same time a learned person to explain the Chrlilian religion. One Ceronimo Xavier was dispatched, and with this view learned the Persian language; but the gospels, which were translated into this language, and presented to the Mogul in 1602, were so intermingled with popish legends, that they were not likely to be very intelligible or to produce any very good effect. As in every province of his extensive dominions, the Hindoos formed the great body of his subjects, Akbar endeavoured to acquire a perfect knowledge of their religion, their sciences, their laws, and their institutions; in order that he might conduct every part of his government, particularly the administration of justice, in a manner as much accommodated as possible to their own ideas. In these generous views he was seconded by Abul Fazl, a minister whose understanding was not less enlightened than that of his master. By their affable researches, and consultations of learned men, such information was obtained as enabled this Vizir to publish a brief compendium of Hindoo jurisprudence in the Aycen Akberry, which may be considered as the first genuine communication of its principles to persons of a different religion. In what estimation the mild government of Akbar was held by the Hindoos we may learn from a beautiful letter of Jefwaint Sing, Rajah of Jondpore, to Aurengzebe, his fanatical and persecuting successor. "Your royal ancestor, Akbar, whole throne is now in heaven, conducted the affairs of this empire in equity and firm security for the space of 52 years, preserving every tribe of men in ease and happiness. Whether they were followers of Jesus, or of Moses, of David, or of Mahomed; were they Brahmins, were they of the sect of Dharma, which denies the eternity of matter, or of that which affords the existence of the world to chance, they all equally enjoyed his countenance and favour; insomuch that his people, in gratitude for the indierminate protection which he afforded them, distinguished him by the appellation of Jugger Greco, guardian of mankind. - If your Majesty places any faith in these books, by distillation called divine, you will there be instructed, that God is the God of all mankind, not the God of Mahomedans alone. The Pagan and the Mussulman are equally in his presence. Distillations of colours are of his ordination. It is He who gives existence. In your temples, to his name the voice is raised in prayer; in a house of images, where the bell is shaken, fill He is the object of adoration. To vify the religion and customs of other men, is to set at naught the pleasure of the Almighty. When we deface a picture, we naturally incur the resentment of the painter; and justly has the poet said,
A肯


In Dr. Akenfide's poems, and the notes annexed to them, we may discover his extensive acquaintance with ancient literature, and his ardent attachment to the cause of civil and religious liberty. His politics were thought to incline to republicanism, but no evidence to this purpose is deductible from his poems; and his theology is supposed to have verged towards deism: and yet, in his ode to HAdding, and to the author of the Memoirs of the House of Brandenburg, he has testified his regard for pure Chirillanity, and his dislike of attempts for setting men free from the restraints of religion. Our readers may be gratified with the following extract from the first of these odes.

"To him the teacher bids'd,
Who sent religion from the palmy field
By Jordan, like the morn to cheer—the wells,
And lifted up the veil which heav'n from earth conceal'd,
To Hadding thus his mandate he address'd:
Go, then, and rescue my dishonoured law
From hands impious, and from tongues impure:
Let not my peaceful name be made a lure,
Fell perdition's mortal snares to aid:
Let not my words be impious chains, to draw
The free-born soul in more than brutal awe,
To faith without assent, allegiance unrepaid."

Dr. Akenfide's rank among the English poets is assigned to him in consequence of his "Pleasures of the Imagination," founded on Addison's well-known papers on the same subject, in the Spectator: "the most beautiful didactic poem," says Mr. Cooper, in his letters concerning it; "that ever adorned the English language;" and though abstracted in its nature, so popular, that when it first appeared, it passed through several editions, and "is still read," says an excellent judge (Dr. Aikin), "with enthusiasm by those who have acquired a relish for the lofty conceptions of pure poetry, and the strains of numerous blank verse." The merit of this poem, and of the writer,
The beauty of the text is greatly appreciated by Mrs. Barbauld in an Essay prefixed to an ornamented edition of this poem, published in 1795, that we shall gratify our readers by furnishing a part of the summmary with which it concludes. "If the genius of Akenfield is to be esteemed from this poem, it will be seen to be lofty and elegant, chaste, correct, and classical; not marked with strong traits of originality, not ardent nor exuberant. His enthusiasm was rather of that kind which is kindled by reading and imbibing the spirit of authors, than by contemplating at first hand the works of nature. As a verifier, Akenfield is allowed to stand amongst those who have given the most finished models of blank verse. His periods are long but harmonious; the cadences fall with grace, and the measure is supported with uniform dignity. His muse possest the "inn crede", and "high commanding guilt." We shall scarcely find a low or trivial expression introduced; a careless and unfitted line permitted to stand. His flatfines, however, is somewhat allied to lieffnifs. His verse is sometimes feeble through too much a redundancy of ornament, and sometimes laboured into a degree of obscurity from too anxious a desire of avoiding natural and simple expressions." Biog. Brit. Gen. Biog.

AKERKUF, in Geography, a mountain of Asiatic Turkey, east of the Euphrates, in the government of Bagdad. Tavernier placed it between the Euphrates and the Tigris, supposing that the ruins found here are those of the tower of Babel.

AKERMAN, or BIELGORD, in Geography, a town of Besarabia, on the coast of the Black Sea, at the mouth of the Dneifter, 22 miles south-east of Bender. E. long. 31° 14'. N. lat. 46° 8'.

AKERSLOOT, William, in Biography, a painter and engraver, who lived at Haarlem, and flourished in 1624.

AKERSUND, in Geography, a bay on the coast of Norway, ten leagues west-north-west of Frederikshald.

AKHISAR, q. d. white-castle, a name given by the Turks to the ancient THYATIRA, on account of the white marble that abounds there. It is a town of Natalia, in Asiatic Turkey, 14 leagues south-east of Bergamo; situated in a fertile plain on the river Hermus, abounding with grain and cotton, and carrying on a commerce of opium and Turkey carpets. N. lat. 38° 50'. E. long. 28° 30'.

AKI, a province of Japan, in the western part of the island of Niphon; with a town of the same name.

AKIBA, in Biography, a famous Jewish Rabbi, lived in the first century of the Christian era, soon after the destruction of Jerusalem, and devoted himself to the study of the Cabalistic philosophy. In the earlier period of his life, and till he was 40 years of age, he was a shepherd in the service of a rich citizen of Jerusalem; but his master's daughter having promised to marry him, if he became a learned man, he industriously applied to study. So successful was his application, that he became one of the most eminent teachers in the schools of Jewish learning, first at Lydda, and afterwards at Jaffa; and if the Jewish accounts may be credited, he had 24,000 disciples. The Jews of Palestine esteemed him so highly, that they scrupled not to say, that God revealed to him what he had concealed from Moses. The book intitled Jetirah, which has been ascribed to Abraham, is said to have been written by him, and, though it abounds with trifles and absurdities, it was quoted by the Jews at this period, as of divine authority. Towards the close of his life, Akiba joined the standard of the impotlor Barchocheba, who appeared under the chararacter of the Messiah, to deliver his countrymen from the power of the emperor Adrian. When this impositor was taken prisoner, and his followers put to the sword, Akiba and his son Pappus were slain alive. This happened, according to the Jewish chronologists, in the year 120; but, according to Balnage (lib. vii. c. 12.), in 138. Akiba was honoured by the Jews, after his death, as an eminent doctot of their law; and his tomb, supphed to be at Tiberias, was visited with great solemnity. He is said to have altered the Hebrew text of the Bible, with respect to the age of the patriarchs, when they began to have children, which is greater according to the Septuagint than in the Hebrew text; and he did this, it is said, to put off the period of the Messiah's advent, which, according to the tradition of the Jews, was not to take place till the completion of 6000 years. It has been argued, that the translation of Aquila, which was published in the 12th year of Adrian, agrees with the Hebrew text of this time, and that this Aquila having gone over from the profession of Christianity to that of the Jewish religion, and enlisted among the disciples of Akiba, persuaded his master to make this alteration. Per son Antiq. e. 16. This charge, however, is feebly supported, and the difference between the two texts is a difficulty that remains still to be satisfactorily solved. Gen. Dict. Brucker's Philos. by Enfield, vol. ii. p. 200.

AKIM, in Geography, a town of Africa, on the Gold Coast.

AKIUREEK, a town of Asiatic Turkey, in Natalia, eight leagues south-west of Kafframon.

AKKER, a city of Syria, situate upon mount Barraglus, about nine leagues to the south-east of Tartus; also a river that runs by it. This, says Dr. Shaw, (Trav. p. 269.) must have been formerly as noted for its strength, extent, and beauty, as it is now for the goodness of the apricots, peaches, nectarines, and other fruit, which it produces; and he suggets, that it is the Kir, i.e. the city, mentioned in Scripture. Amos. iv. 7.

AKKIA, an island near the west coast of Eall Green- land. N. lat. 60° 30'. W. long. 46°.

AKKIAH, a town of Romania, in European Turkey, eight miles south of Burgas.

AKOND, an officer of justice in Perfa, who takes cognizance of the-causes of orphans and widows; of contracts, and other civil concerns. He is the head of the school of law, and gives lectures to all the infern officers; he has his deputies in all the courts of the kingdom, who, with the second sudra, make all contracts.

AKOUSCHY, in Zoology, the Cavia Auemby, the olive cavy of Perina, has a short tail, with the upper parts of the body of an olive colour, and the under part whitish. Some have reckoned this animal a variety of the Agouti; but it differs from it in having a tail, which the other wants, or rather a longer tail than that of the other; in being smaller; and in having its hair of an olive, and not a red, colour; which are differences, says Buffon, sufficient to constitute two distinct species. It is about the fize of a half-grown rabbit, isWall tame, is hunted with dogs, and reckoned the finest game in South America. Its flesh is white and delicate, and much esteemed by the inhabitants of Guiana, Cayenne, and Brazil, where this animal is found. It inhabits the woods, and lives on fruits; has such a dread of water, that it will submit to be feized by the dogs rather than go into it; and it will sometimes, though rarely, cry like the reifles cavy. Buffon Smellie, vol. v. p. 61. vol. viii. p. 270.

AKQEDAN, in Geography, a town of Africa, with a Dutch factory, on the Gold Coast.

AKRIDA, a town of Macedonia, in European Turkey, situate on the Driho, 134 leagues west of Constantinople, and 45 leagues south-east of Ragula. N. lat. 41° 46'. E. long. 20° 30'.

AKR
AKSA, a river of Georgia in Asia, that runs into the Caspian Sea, near Zirnak or Terek.

AKSIHINSKA, a town and fortress of Ruffia, 16 leagues south of Daronlun.

AKSERAWA, a town of Natolia, in Asiatic Turkey, 20 leagues east-north-east of Konieh, or Cogni. N. lat. 38° 26'. E. long. 31° 14'.

AKSEBAH, a town of Natolia, nine leagues south-west of Lepri.

AKSEHH, a town of Natolia, 23 leagues west of Konieh. N. lat. 38° 26'. E. long. 31° 14'.

AKSU, a province of Little Bubaria, to the north of Kafhgar, and west of the province of Turfan, about 350 miles long, and 70 in breadth. Its chief town, of the same name, lies on the north side of a small river, which runs south-east, and loses itself in the sands. N. lat. 42° 50'. E. long. 83° 21'.

AKULA, an ancient city of Asia, situate on the calbern bank of the Tigris.

AKUN, ARKNO, and AKUTAN. See FOX ISLANDS.

AKURA, a town of Asiatic Turkey, in the government of TARKUCC, or Tripoli of Syria, seven or eight leagues from mount Libanus. It has a Maronite bishop.

AL, an Arabic particle, prefixed to words, to exalt, or give them a more emphatical signification.—As, in ALKORAN, AGEBA, &c.

AL, or ALD, in our Ancient Writers, signifies as much as old, ancient.—This being prefixed to the names of places, expresses their antiquity; as ALBOURNE, ALใคร, &c.

AL, a Latine term, literally signifying wing, used, in Anatomy, for several parts of the body, which bear some resemblance to the figure of a wing.

Thus, the lobes of the liver are sometimes called ala.

The soft fpongy bodies in the *Asclepium nobile, usually called the symphe, are denominated ala.

The two cartilages of the nose, which form the nostrils, are called ala.

And the same denomination is given to the tip of the auricle; and to the whole cartilaginous part of the ear, by way of distinction, from the tip and pendent part below, called the lobe. It is also applied to the procus of the os sphenoides.

The term ala is sometimes applied to the arm-pits, otherwise called axilla. Thesf parts abound with glands, and are great receptacles of humour; whence a rank smell sometimes exhalts, called *feter alarinm.

ALA, in Botany, a name given by the Latin writers of Medicin, in the later ages, to the *telenium, or elecampane.

ALA is also used in Botany, for the angle which the leaves, or the stalks, or pedicles of the leaves, form with the stem, or branches of the plant from which they arise. This angle is usually acute, and always is directed upwards.

ALA is sometimes also applied to the angle formed by the branches themselves with the stem, which is also observed to be very regular and uniform.

ALA has several other different significations. It moist frequently is used to express the hollow of the stalk of a plant, which either the leaf or the pedicle of the leaf, makes it; or it is that hollow turning, or *florus, placed between the stalk, or branch of a plant, and its leaf, from whence a new offspring is wont to put forth. Sometimes it is taken also for a little branch, as when we say, a *stock, or *item of a plant, is armed with many ala; because these small branches stand out from it, in form of so many wings.

ALA is also used to signify those petals, or leaves of the papilionaceous flowers, placed between those others which are called the *vexillum and the carina, which make the top and bottom of the flower. Influences of flowers of this structure are seen in the flowers of peas and beans, in which the top leaf or petal, is the vexillum, the bottom the carina, and the side ones the ala.

ALA is also used for those extremely slender and membranous parts of some seeds, which appear as wings placed on them, as in the plumage, the fruit of the trumpet-flower, the fruit of the maple, and the like, which are called by botanists *alate seeds.

ALA is finally used also for those membranous expansions, which run all the way along the items of some plants, and are therefore called *alate filaments.

ALA, in the Military Art, the two wings or extremities of an army ranged in form of battle.

An ala of horse, amongst the Romans, consisted of 300 horsemen, and was divided into turme and decuriae; each turma consisting of 30 men, and each decuria of ten; so that there were in every ala ten turme, and in every turma three decuriae.

ALA, in Geography, a town of Japan, in the province of SAKUHIN.

ALA, or AL, a town of Arabia, 21 leagues north-east of HAGIAZ.

ALA-MILLAIENIS, in Ancient Geography, an episcopal city of Africa, in the Mauritania Cæsariensis.

ALA-NOA, a town of Pannonia, according to Antonine.

ALABA, a small island in the Indian ocean, near Taprobana, according to Ptolemy.

ALABAC, of ALABAC, in Geography, a small district or province of Spain, extending along the river Ebro, from the mountains of Bilbao to the frontiers of Navarre, and comprehending about seven or eight leagues in length, and six or seven leagues in breadth. The soil is fruitful in rye, barley, vines, and several sorts of fruits; and the iron mines of the country furnish materials for the manufacture of arms and other utensils, which furnish articles of commerce. The chief town is Vitoria.

ALABA, a large kingdom of Africa, forming a part of Monemugi, is situate to the east of Cambate, and extends to the coast of Zanguebar. It is inhabited by a cruel people, called Gallas.

ALABAGIUM, in Ancient Geography, a promontory of Asia, in Carmania, upon the borders of the Ichthyophagi, according to Ptolemy.

ALABAH, in Geography, a considerable river of America, in East Florida.

ALABAMA, an Indian village, delightfully situate on the banks of the Mississipp, the inhabitants are the remains of the ancient Alabama nation, which inhabited the east arm of the great Mobile river, that still bears their name, now possessed by the Creeks, or Mufengulges, by whom they were conquered.

ALABAMA is also the name of a river in America, which is formed by the junction of the Coofee or High-town river, and Tallapooshee river, at Little Tallacee, and runs in a south-west direction, until it meets Tombigbee river from the north-west at the great island which it there forms, 90 miles from the mouth of Mobile bay, in the gulf of Mexico. This beautiful river has a gentle current, pure waters, and excellent fish; and its banks abound with valuable productions in the vegetable and mineral kingdoms. Travellers have travailed this river in boats, in the month of May, in nine days from Little Tallacee to Mobile bay, a distance of about 330 miles.

ALABANA, a town of Arabia Felix, placed by Ptolemy in long. 74° 30' and lat. 20° 15'.
ALAANADA, a town of Caria, in Asia Minor, south of the river Meander. It was founded by Albauneus, who on this account was worshipped by its inhabitants, called Alabandi, Alabandii, and Alabandenses. In the time of Pliny it was a free city, whence it was proverbially denominated the most fortunate city of the Carians. Strabo (vol. xii. p. 976.) represents the Alabandenses as luxurious and glutinous, and devoted to pleasure. Some writers have given the name Alabanda to Antiochia.

ALABARCHA, in Antiquity, a kind of magistracy among the Jews of Alexandria, whom the emperors allowed them to elect, to have the superintendence of their policy, and to decide differences and disputes which arose among them.

ALABARDA, the name of a spear anciently used by the Helvetians and Germans.

ALABASTER, William, in Biography, an English divine, was born at Hadleigh, in Suffolk, in the 16th century, educated in Trinity college, Cambridge; and accompanied the Earl of Essex, as his chaplain, in his expedition to Cadiz, in the reign of Queen Elizabeth. Tickle in his temper, unstable in his principles, and dissatisfied with his situation, and at the same time seduced by the pomp of the Romanish worship and the respect paid to his priests, he became a convert to the church of Rome. But in his new connection he was disappointed; and upon his return to England, he refused the Protestant profession, and obtained preferments in the English church; being appointed to a living in Hertfordshire, and a prebend of St. Paul's. He was well acquainted with the Hebrew language; but so much attached to the unintelligible mysteries of the Jewish cabala, that his knowledge of the original language of the Old Testament was of little service to him in the interpretation of scripture. Of his talents as a Biblical commentator, we may form some judgment by the sermon which he preached on taking his degree of doctor in divinity at Cambridge. His text was 1 Chron. i. 1. Adam, Seth, Enos; and having just touched upon the literal sense, he enlarged upon its mystical meaning; explaining Adam by misfortune and misery, and so of the rest. He wrote a Lexicon Pentaglotton, which was printed in folio, in 1637; and other works of a mystical kind, viz. "Apparatus in Revelationem Jehvi Chirilli," printed at Antwerp, in 1607; "Spincolum Tubarum, seu fossa Spiritualium ex equin. vocis Pentateucis significationibus," and "Ecc. Sponsus, seu Tuba pulchritudinis, hoc est, demonstratio quo non fit illeicitum, nec impossibile, computare durationem Mundi et tempus secundus adventus Chirilli," all printed in London. He was also the author of a Latin tragedy intitled Romanza, which, at its exhibition in a college at Cambridge, produced a singular accident. When the last words, sequar sequar, were pronounced, the voice and manner of the actor so terrified a lady who was present, that she irrecoverably lost her senses. Alabaster died in the year 1642.

Gen. Dic.

ALABASTER, alabstir, Fr. alabastristes of Pliny, in Mineralogy. Some derive the word from alabas, because of the whitenece of this stone. Others from albus, which they form from the priv. al, and ab, to take; this stone being too smooth and slippery for the hand to fasten hold of it. Under this name are confounded two minerals, wholly distinct from each other when pure, but which, in some of the varieties, are occasionally mixed together.

The compact gypsum of Kirwan (Alabaster, La Metb. alabâtre gypseux de Lille, Dichter Gypsein, Kirven) when of a white or yellowish, or greenish colour, semi-transparent, and capable of receiving a polish, is known among flatters by the name of alabaster, which term is also retained as a secondary appellation in most books of mineralogy; and it certainly the alabasterites of Pliny, which is characterized by that author as a stone resembling gypsein. When its colours are diposed in bands or clouds, it is called, in the first cafe, onyx alabaster, and in the latter, agate alabaster. It not infrequently contains a sufficient portion of carbonated lime to produce a brisk effervescence with nitrous acid; and hence has originated the confusion of authors, who make the circumstance of effervescence an essential distinctive character between the gypsein and calcareous alabaster. Its specific gravity seldom exceeds 1.9. Its fracture is compact—splintery, sometimes verging on the fine-grained foliated. In transparency, it is considerably superior to white wax, allowing light to pass readily through it, but not transmitting the forms of objects.

By light calcination it is converted into Paris plaster.

Gypseous alabaster is very easily worked, but is not susceptible of a polish equal to marble. It is made into vases, columns, tables, and other ornamental articles of furniture: thin slabs of it have been used in one of the churches of Florence instead of window glass. Its brittleness however, and want of lustre, have caused it to be almost wholly superceded by more durable materials. Among the ancients, the most esteemed came from Campania, Upper Egypt, and Syria: of the variety called onyx, the boxes for holding perfumes were mostly fabricated; thus, in Horace, we meet with "Nardi parvis onyx.

The calcareous alabaster, or finter (albâtre calcare), is a stone of the same family as onyx, containing chiefly of carbonat of lime, and exhibiting a considerable variety of colours; such as pure white, yellowish, greenish, reddish, and bluish grey: its fracture is fratis or fibrous, the fibre sometimes parallel and sometimes divergent; its hardness is somewhere inferior to that of marble, which nevertheless does not prevent it from receiving a good polish; its specific gravity from 2.4 to 2.8: its transparency is nearly equal to that of white wax; it charmese with acids and burns to lime. Two sorts of alabaster are distinguished by flutters, the common and oriental: under the latter of these are ranked the hardest, the finest, and the best coloured pieces; a number of sub-varieties are also produced by the colours being in veins, or dendritic, or in concentric undulating zones. Italy and Spain yield the most beautiful specimens; the inferior kinds are found in Germany and France. It is manufactured, like the gypseous alabaster, into tables, vases, fittas, chimney-pieces, &c.

Many of the hot sulphurous waters rise out of the ground of a turbid wheyish colour, on account of a large quantity of gypsein and chalk, which they hold suspended, and in a state of half solution; so that these grow cool and lose their carbonic acid, the earthy particles are for the most part deposited, lining the bottom and sides of the channels in which they flow with a compact alabaster. Advantage has been occasionally taken of this circumstance to obtain very beautiful impressions of bas-reliefs, by exposing the moulds to a current of such water, till they have become filled with the earthy deposit. The most remarkable of these springs in Europe, is that which supplies the baths of St. Philip in Tuscany; it is situated on a mountain near Radicefani, and forms the source of the little river Paglia. The water as it issuest forth is very hot, springs out with great impetuosity, has a strong sulphurous odour, and holds in solution a large quantity of calcareous matter. From its very source it flows in deep channels, covered with a thick crust of flatterite, of a dazzling white, especially when the sun shines upon it; and which is harder or softer
in proportion to the rapidity of the stream, and the obliquity of its fall. This circumstance suggested to Dr. Vegni the idea of effecting, on this mountain, a manufacture of artificial alabaster. For this purpose, he first collected a number of plaster models, of the best bas-reliefs, in Rome and other places of Italy. These models serve to form the hollow moulds, which are made of sulphur, according to the following process. The plaster model is surrounded with an edging of plaster, of the same height as the intended thickness of the subflet bas-relief. Then sulphur, melted with jufli sufficient heat to make it flow, is poured on the plaster model, and filled to the height of the edging. The sulphur mould that is made, is placed in a kind of wooden tub, roughly put together, open at top and bottom, and of left diameter below than above. This tub has on the inside a false bottom, made of slips of wood laid cross-wise, in order to detain, for a short time, the water which dafhes on them. Just above this, is a row of wooden pegs, falled to the tub, around its whole inner circumference, on which the sulphur mould is let down, and thus supported. The whole is then placed under the boiling spring, and inclofed with walls, to prevent it from being displaced by the wind. The water, which thus dafhes on the moulds, deposits its earth both within and without them, giving the impression in bas-relief within, and depositing itself in an undulated surface on the outside. The hardness of the alabaster depends on the degree of obliquity at which the mould is placed, in order to receive the dashing of the water. The more vertical its position, the harder is the alabaster. However, as the hardest models are not so white as the fottet, the water is in some cafes caused to make a circuitous course, in order to deposit all its grosser particles before it arrives at the mould. Even the fottet ones, however, are as hard as Carrara marble, and furnifh it in whitenefs. The time required for these productions varies, according to the thickness, from one month to four. When the sulphur mould is sufficiently filled, and the ground of the model has acquired a thickness capable of supporting the figures, the whole is removed from the water; the wooden supports are broken by gentle frokes of the hammer, and the incrustation on the outside of the mould is chipped off by repeated frokes. Then the tub is struck with a smart blow of a hammer, which separates the model from the mould; generally, however, cracking the latter. The brilliancy of the models is completed by brushing them with a fliff hair-brush, and rubbing with the palm of the hand.

The composition of this alabaster is gypsum, mixed with a small proportion of carbonated lime. Dr. de Vegni has, after many attempts, succeeded in giving a fine black, or flet colour to the figures thus formed, by putting a veffel half full of colouring matter into the water, before it arrives at the mould. The colouring may also be varied, by protecting particular parts of the mould, while the water continues charged with colouring matter.

A spring of the fame kind as that just described, and applied to similar purposes, is that of Guancavelica in Peru. The water rises from the ground into a large bonfire boiling hot, and of a muddy yellowish white colour. At a little distance from the bonfire, the water becoming cool, deposits calcareous matter in such vast abundance, as to fill large moulds with a compact stone, of which fome of the houses of the town are constructed. The moulds of statues, in like manner, being expoed to the water, are filled with hard confusedly crystallized alabaster, and the bas-reliefs thus produced, by polishing, become femitransparent and very beautiful. The images made use of by the Catholicks of Lima, in their religious ceremonies, are said to be all formed in this manner.


Alabaster, in Antiquity, is also used for a vase, wherein odorous liquors were anciently put.

The reason of the denomination is, that vefels for this purpose were frequently made of alabaster-stone, which Phyl and other ancients represent as peculiarly proper for this purpose.

Several critics will have the box mentioned in the Gospel as made of alabaster, to have been of glass. And though the texts say, that the woman broke it, yet the pieces seem miraculously to have been united, since we are told, the entire box was purchased by the emperor Constantine, and preserved as a relic of great price.

Others will have it, that the name alabaster denotes the form rather than the matter of this box. In this view, they define alabaster, by a box without a handle, deriving the word from the privative a, and l怪, handle.

The expression, σωματικα χορωδη, used by the evangelist Mark, (xiv. 3) and which our translators have rendered "She brake the box," has occasioned some difficulty in the interpretation of this passage; but by referring the term σωματικα, to the ointment, and not to the alabaster-box; and rendering the words, with Bishop Pearce, "breaking the poured the box," i.e. breaking the parts of the ointment, and liquefying them by shaking it, the poured some of the ointment out of the box upon his head; or, with Mr. Wakefield, "After shaking the box together, she poured it out upon his head," the difficulty is obviated. To justify this translation, and interpretation of the word σωματικα, it may be observed, that Luke (ix. 39.) uses σωματικα for braking. Blackwall, Sacred Classics, vol. ii. p. 166. has remarked, that the shaking of this nature breaks and separates their parts, and thereby makes them more liquid and fragrant; and that the word σωματικα is an excellent one for that purpose; and he very justly quotes, on this occasion, Plato in Rhe-done, Διαρμα χορωδη: Martial's Epigrams, iii. 55. Ed. Delphin.

— "Et fluere exufo cinnama funa vitro."
and Lucretius iv. 700.

— "Fracla magis redolere videntur
Omnia quod contrita."

See Pearce's Com. vol. i. p. 276. Wakefield's Silva critica. Pars. i. 111. p. 156.

Sir Edward Knatchbull and Dr. Hammond have sug-
stigted the fame interpretation of this passage.

Alabaster is also said to have been used for an ancient liquid measure, containing ten ounces of wine, or nine of oil, and in this sense the alabaster was equal to half the fextary.

Alabaster Island, in Geography. See Eleutheria.

Alabaster, in Botany, are those little herbaceous leaves which encompass the bottoms of flowers, particularly the rofe. See Calyx, &c.

Some, with Jungius, explain alabastra, by the globe or roundish bud of the rofe just peeping out.

Alabaster, in Ancient Geography, a town of Phrygia, mentioned by Steph. Byz. on the authority of Herodotus, but probably mistaken for Alaha. Ptolemy mentions a town of this name in Egypt.

ALABASTRITAE,
ALAABRISTE, alabaster, in Natural History, the name of a genus of fossils allied to the marbles, and defined to be stones composed of large separate concretions, of great brightness, and an elegant, but blunter structure, not very hard, nor having fire with fleck, effervescing with and soluble in acids, and calcining in a bright flame. See ALABASTER.

ALABASTRITES is often used as synonymous with alabaster. But Anfelmus Boetius distinguishes between alabaster and alabstrites, in making the criterion of the former to be so soft, that it may be cut with a knife; and of the latter, that it is so hard that it cannot be so cut.

Grew speaks of a sort of alabstrites representing the transverse section of the trunk of a tree.

ALABASTRUM dudovicum, a name given by authors to a species of alabaster, found in great abundance in the province of Hohenstein, and famous for the elegant delineations of trees and other figures described in it. See ALABASTRUS.

ALABASTRUS, in Ancient Geography, a town of the Thebaid, in Egypt, where Pliny says topazes were found.

ALABASTRUS, a river of Troas, which flowed from Mount Ida.

ALABATER, a promontory of Carmania.

ALABON, or ALABUS, now Cataca, a river of Sicily between Myla and Megara, which Diodorus (li. 27. tom. i. p. 321.) represents as a large river, which discharged itself into the neighbouring sea. Stephano Byz. (vol. i. p. 58.) mentions also a city of this name.

ALABOR, a town of the ancient Rufsand, situate in the present government of Olonetz.

ALABUA, in Geography, a small town of Arabia Petraea, where it is said Abdalla, the father of Mahomet, died, and which is a station of the pilgrims that visit Mecca.

ALABURIA, in Ancient Geography, a town of Syria, mentioned by Stephan. Byz.

ALACH, in Geography, a prefecture belonging to the territory of Erfurt, containing 13 parishes.

ALACHUAH SAVANAH, a level green plain in the country of the Indians of that name in East Florida, situate about 75 miles west from St. Augustine. It is about 15 miles wide and 80 miles in circumference, and encircled with high floating hills, covered with waving forests, and fragrant orange groves, which rise from a very fertile soil. The ancient Alachua town stood on the borders of this Savannah, but the Indians removed to Cuscovilla, about two miles distant, on account of the infallibility of the situation. The herded cattle and horses bred in these meadows are large and fat, but they are subject to mortal diseases, such as the water rot or scald, occasioned by the warm water of the Savannah.

ALACRANES, a range of rocks and shoals on the south side of the gulf of Mexico, situate over against the peninsula of Yucatan; cast from Stonebank, and west from Cape St. Antonio, within the 24th degree of north latitude, and between 80° and 91° W. long. They are said to derive their name from the great number of scorpions that are found there.

ALADA, an island in the Indian Ocean, near the coast of Siam. N. lat. 9° 27'. E. long. 97° 52'.

ALADAG, or AMADAG, the highest mountain of Natolia, in Asia, north of Augora, and not far from the Cape of Coromba. N. lat. 40° 10'. E. long. 52° 46'.

ALADINISTS, a sect among the Arabs, antipathizing to free-thinkers among us.

The Aladdins multiplied greatly under the two learned kings Almanfar and Miramolinus.

ALADUILA, a considerable province of Turkey in Asia, between Amafa and the Mediterranean, towards Mount Taurus. Some have represented it as the third division of Asia Minor, and made it to comprehend Cappadocia and Lesser Armenia. IOn it flows the right to Trebizond, and is called by the Turks the beglebegate of Marash, and sometimes Dulgadir. The soil is fruitful for tillage, but affords abundance of pasture, which breeds a great number of cattle, especially horses and camels, and large herds of sheep and goats. Cappadocia, besides its pasture grounds, produces wines and fruits in great plenty; and its mountains, particularly the chain called Antitaurus, have mines of silver, copper, iron and alum. Marash and Cezarea are well built and populous cities. Armenia the latter, so called by way of distinction from the greater Armenia, has this country which belongs to Peria on the east, Syria on the south, the Euxine on the west, and Cappadocia on the north. The people are addicted to war and plunder.

ALENUS, in Ancient Geography, a river of Britain, according to Ptolemey, supposed to be the river Ax, and its mouth Ax-mouth. It was so called perhaps from the British A han in, the full river.

ALES. See ALESA.

ALAFONS, in Geography, a district of the province of Beira, in Portugal, containing 37 parishes, and erected into a duchy in 1718, by John V.

LAGNON, a rapid river of France, in the late province of Anjou, whose source is at Cazal, and which falls into the Allier.

ALAGOA, a town of Africa, in Upper Guinea, where the Portuguese have an establishment.

ALAGOA bay lies on the easterly coast of Africa, in the Indian Ocean. S. lat. 25° 30'. E. long. 38° 28'.

ALAGOA is also the name of a town of South America, in the country of Brasil, and government of Xaracu.

ALAGON, a river of Spain, which rises in the mountain of Leon, and runs into the Tagus, a little above Alcántara. It is also the name of a small town of Aragon, standing on a peninsula formed by the rivers Ebro and Xalcon, about four leagues from Saragossa.

ALACTAGA, in Zoology, the Tartarian name of the Siberian Jerboa, signifies an animal which cannot walk. Buffon. (Nat. Hist. by Smellie, vol. vii. p. 202.) characterizes it as having legs like those of the Jerboa, but with five toes on the fore feet, and three on the hind, with a spur, that may pass for a thumb or fourth toe, much shorter than the others.

ALAIN, Chartrier, in Biography, secretary to Charles VII. king of France, was born in 1386. He was the author of several works in prose and verse; but his considerable work was the "Chronicle of King Charles VII." It is said that Margaret, daughter to the king of Scotland, and wife of the dauphin, finding him asleep at an early hour of the day, and when they expressed their surplice at her coquetry to a person who possessed few charms, she replied: "I did not kiss the man, but the mouth, from which proceeded so many excellent sayings, so many witty discourses, and so many elegant expressions." On this incident Fontenelle has founded one of his Dialogues of the dead. Paquier extols the character of Alain, and compares him to Seneque, on account of the infinite number of beautiful sentiments, that are interposed in his writings. Gen. Dict.

ALAIN, John, a Danish writer, was born in 1563, and died in 1632. He published a treatise "On the Origin of the Cimbri, and their various Establishments;" another "On Logic, natural and artificial," and a third "On the
pronunciation of the Greek Language, with an Apology for Saxon Grammaticus.

ALAIN, Dr Lafa, a native of Lille, in Flanders, flourished in the thirteenth century, with such reputation for his skill in theology, philosophy and poetry, that he was called the Universal Doctor. He died in 1299, and left behind him many pieces in prose and verse, which were collected into one volume in folio, at Antwerp, in 1647. His fame was so great, that it was thought a happiness to know him; and it was proverbially said, "Suffice it to have seen Alain."


ALAINC, in Geography, a small river of France, in the department of Nièvre.

ALAJOR, one of the four quarters into which the island of Minorca is divided, so called from a small place near it.

ALAIN, or ALAI, a large and populous city of France, in the department of the Gard, situated on the river Gard, at the foot of the Cevennes. Julius Cæsar in his commentaries calls it Aelia. A bifloric was founded in this place in 1691, with a view, as it is said, of converting the provincials, who were numerous; and a citadel had been built in 1689, in order to save them. The dioecese consists of 80 parishes. The country about it is well cultivated, and produces grain, olives and mulberries, but the principal wealth of the place has been hitherto derived from its manufactures of ferges and rattanes, and from its exportation of raw and wrought silk. It is distant 14 leagues north of Montpellier, and 140 south-east of Paris. N. lat. 44° 8'. E. long. 3° 46'.

ALABSEE, in Heraldry, the name with bunetty, of rac-courcy.

ALASKIAN MOUNTAINS, in Geography, a part of the Altay mountains in Russia, comprising that range which advances from the origin of the Alay to the two sides of this river, and between it and the Ouba and Irtish, and runs out into the great Saline plain, which is skirted by the Alay, the Irtish, and the Ob. See SLUDNA.

ALACOMENIA, in Ancient Geography, a town in the island of Ithaca, where, according to Plutarch, Ulysses was born.

ALACOMENIUM, or ALACOMENE, a small town of Beotia, fourth-eaft of Chersonae, near the lake Copais, founded according to Pausanias (in Beotic, lib. ix.) either by Alacomenian, father-father of Minerva, or by Alacomenia, one of the daughters of Ogyges, the nurse of Minerva, near which the had a temple, and a statue of ivory, which was removed by Sulla to Rome. Hence Homer deduces the epithet Alacomenian, ascribed to Minerva.

ALACOMENIUS, in Ancient Chronology, the Beotian name for the Athenian month Mæmactrion, which was the fourth of their year, and answered to the latter part of our September and beginning of October.

ALALIA, or ALALIS, in Ancient Geography, a town of Syria, placed by Ptolomy in the Palmyren, near the Euphrates, and by M. d'Anville, north-west of Rafaba.

ALAMA, a town of Alia, in Mesopotamia, situated on the river Elisha, north-west of Nicephorion.

ALALOEI, small islands in the Arabian gulf, where, according to the Periplus of Arrian, turtles were found; the name with the Alloc of Pliny.

ALAMAN, or the island of the Conception, in Geography, one of the Ladrones, or Marianas islands, about 10 miles from Guaynan, and 18 miles in compass. There is a volcano on the north-west part of this island, which flakes close to the sea, forming a cone in height about 500 yards, with a base of about 400 yards; and the sides are marked by Arems of black lava, which, passing through a rich vegetation of cocoa-nut trees, may be traced to the shore, where they have entered the sea. This cone is encompassed with cinders, which, at the distance of about a mile and a half, are covered with a black vegetable foil, which produces trees as large as any upon the island. At a nearer distance there is not for several acres the least sign of vegetation. In the year 1799, the volcano seemed to be preparing by its rumbling noise, and the smoke that issued from it, for a new eruption. The lower parts of the island are covered with trees of a thick foliage; some few open spots produce a thick and long grass; but the most plentiful productions of the island are the cocoa-nuts, which grow in clumps near the shores close down to the beaches, and which may be easily obtained in great abundance. Trees, resembling the pines of Port Jackson, bearing a small cone, and riling to the height of 30 or 40 feet, are very numerous. A supply of the fruit of the papaw tree may be gathered about the middle of August. No quadrupeds have been observed upon this island except green-tailed lizards; land crabs are numerous and large; partridges and quails, owls, thrushes, bullfinches and pigeons are found here. The island may be seen at the distance of 12 or 14 leagues. Its shores are rocky to windward, but in the bay to leeward there are two or three beaches. On the west or left side of the island the shore boands into a kind of bay, where, as the trade wind in general blows steadily to the eastward, ships might ride securely as long as they had occasion to stay. N. lat. 18° 5'. L. long. 146° 47'. The variation of the compass in 1759 was 41 east.

ALAMA, a town of Switzerland, in the Canton of Berne, three leagues north-east of Nion.

ALAMANDUS, LEWIS, Dr. Aleman, in Biography, archbishop of Arles and cardinal of St. Cecilia, was one of the greatest men in the 15th century. He preceeded in the council of Basll, which depoosed Eugenius IV. and elected the Antipope Felix V. Aeneas Sylvius highly commends him, as a man admirably formed for prefiding in such assemblies, firm and vigorous, illstitial by his virtue, learned, and endowed with a memory, which enabled him to recapitulate every thing that had been said by the orators and disputants. Although he was deprived of his dignities by pope Eugenius, and very injudiciously treated, he is said to have performed miracles at his death, and he was beatified by Clement VII. in the year 1527. He died at the age of 60 years, in 1450. Gen. Hist.

ALAMANNI, LOUIS, or LEWIS, was born at Florence, of a family of distinction, in 1495; and by his early progres in philosophy and Greek literature, acquired great reputation. He was at first attached to the Medici family, but having entered into a conspiracy against Cardinal Julius de Medici, who became pope Clement VII., he was obliged to take refuge at Venice. He was afterwards imprisoned at Brescia, and upon his release he was under a necessity of abandoning his country, and of wandering, as an exile in France and in Genoa, till the year 1527, when he was recalled to Florence, on the expulsion of the Medici family. When the authority of that family was re-established in 1530, he was again disgraced, and retired to France, where he was chiefly occupied in poetic compositions. At length Francis I. called him to court, invited him with the order of St. Michael, appointed him to a considerable office in the household of Catharine de Medici, and employed him in various concerns at Rome and Naples. In 1544 he was sent on an embassy to the emperor Charles V.; and having been entrusted with different negociations by Henry II. he died at Amboise in 1556, and left two sons, one of whom was made bishop of Macon. The works of Alamann confit of Italian poetry. The first publication of them at Lyons in 1532 and 1533, contained elegies, eclogues, satires, fables, hymns, psalms, &c. and a translation of the Antigone of Sophocles; which
which are much esteemed for their elegance. A didactic poem on Agriculture, in blank verse, "Della Coltivazione," first printed at Paris in 1546, added to his reputation. A piece of greater bulk, intitled, "Girone il Cortece," taken from a French romance, "Girofio la Courteous," was published in 1548. His epic poem, called "l'Avarechide," on the siege of Bourges, and his comedy "La Floria," which he left behind him, did not much succeed. But his Tuscan epigrams, a species of writings, first attempted by himself, were well received, and produced many imitators. Alamanni is considered upon the whole, as a writer to whom Italian poetry lies under particular obligations.

Antonio Alamanni, whose burlesque poems were printed with those of Burchiello, was a relation of Luigi. Gen. Dict.

ALAMANNICUM, in Antiquity, a tribute imposed on the people by the emperor Alexius Angelus, for raising the sum of sixteen talents of gold, to be paid the Alamanni, on the conditions of a peace stipulated with them.

The ecclesiastics themselves were not exempted from this tax.

ALAMATOU, in Botany, the fruit of a tree that grows in Madagascar, resembling in its tattle the black plum, but instead of the flower of the plum, it has 10 or 12 flat kernels; the leaf of the tree is like that of the plum-tree. There are two sorts of this fruit, one like the plum and the other like the fig, which is dangerous when taken to excess.

ALAMBIAY, in Geography, one of the Sonda islands in the Pacific Ocean, 30 leagues south of Borneo.

ALAMEH, a town of Ahatic Turkey, in Nautalia, 53 leagues south of Kutaja. N. lat. 35° 35'. E. long. 31° 25'.

A-LA-MI-RE, in the Guidonian Scale of Majes, or Gamut, is the octave above A-re, or A in the first space in the base [5|3]. As A is the note above G in every part of an instrument, it is, of course, the third found below each tenor clef; and is likewise the found that occupies the second space, and the fifth line in the treble. The letter A itself is an abbreviation of A-re and A-la-ri, in the scale of Guido, and is the found to which all instruments are tuned at an opera, concert, or other musical performance. A in the Italian musical language, when it precedes a sublantive, has the power of in; as A battute, in time, or measure, after recitative, or an ad libitum. A capella, faced music, compositions in the church style. See Gamut and Guidonian Scale.

ALAMODALITY, alamodalitas, is defined by a late writer, a fludy or endeavour to accommodate a man's self in point of behaviour, drefs, conversation, and other actions of life, to the reigning talle or custom, from a motive of complaisance, and to avoid the imputation of ill-breeding.

Alamodality of writing, alamodalitas feribilis, is defined by the same perfon, a particular fludy or endeavour of learned men to adapt the productions of their minds, both as to the choice of subject and the manner of treating it, to the genius or talle of the times, in order to render then more acceptable to the readers.

A German writer, under the name of Gemocenus, has a differentiation on alamodality in writing.

ALAMODE, in Commerce, a thin, light, glossy, black silk, not quilied or croched; chiefly used for woman's hoods, and men's mourning veares.

The name is French, though not given in that country to this fabric, for which they have no other name than taftat noir hybré.

ALAMOS, BALIRAZAR, in Biography, a Spanish writer, was born at Medina del Campo, in Castile. He studied the law at Salamanca, served in a subordinate office under Philip II. was imprisoned upon the diligence of his patron, Anthony Perez, secretary of state to this prince, and after a confinement of 11 years, released by Philip III. By the duke of Olivares, the favourite of Philip IV. he was called to public employments. He was deemed a man of wit and judgment. He died in the 88th year of his age; and his Spanish translation of Tacitus, with marginal aphantoriums, was published at Madrid, in 1614. Biog. Dict.

ALAMPO, ALAMPO, or LAY, in Geography, a town on the gold coast of Africa, call of Ningo, and four leagues from the mountain Redondo, which presents itself in the form of a sugar-loaf to the north-north-west. The town is situated on the declivity of a mountain, which has a northern aspect; and the adjacent coast is bounded by hills of considerable height, that are covered with palm-trees. The inhabitants are gentle and timid; their principal commerce is that of slaves. The anchorage of this port is very good. N. lat. 5°. W. long. 3°.

ALAN, or LYNN, Alarum de Lynnau, in Biography, an English divine of the 15th century, was born at Lynn, in Norfolk, educated at Cambridge, and distinguished as a fludent and a preacher. He was addicted to allegorical interpretations of Scripture, and to the application of the historical parts of the Old Testament, to the concerns of religion and moral conduct, a practice blamed by Bale, but commended by Pits. He wrote tracts on the interpretation of Scripture, sermons, and elucidations of Aristotle; and he was famous for the pains which he took in making indexes to most of the books he read, of which Bale has given a long fill. He at length became a Carmelite in the town of his nativity, and was buried in the convent of his order.

Another person of this name was abbot of Tewkesbury, about the year 1177, and died in 1201. He wrote a book, "De Vita et Exilo Thome Cantuariensi." Biog. Brit.

ALAN, ALAN, of ALLYN, WILLIAM, a cardinal-priest of the Roman church, was born at Roffald, in Lancashire, in the year 1522; and entered, in 1547, at Oriel College, in the university of Oxford, where he made a considerable proficiency, particularly in logic and philosophy, and passed through several gradations of honour. In 1556, he became principal of St. Mary's hall, and one of the proctors of the university; and in 1558, he was made canon of York. But on the accession of queen Elizabeth, as he was a zealous catholic, he lost all hopes of preferment; and in 1560, retired to Louvain in the Spanish Netherlands, where he connected himself with the English college, and was much esteemed on account of his learning and the urbanity of his manners. In this situation he distinguished himself by writing in favour of the catholic cause; and his first piece was "A defence of the Doctrine of Catholics, concerning Purgatory and Prayers for the Dead," printed at Antwerp, in 1565, which commenced a controversy of some continuance. The state of his health, which had been injured by his application to study, rendered it advisable to return to his native country, in 1555; but he soon became obnoxious by the zeal of his attachment to the principles and profession of popery, and by his industry in making profiteers; and he was under a necessity of concealing himself in the neighbourhood of Oxford. In this retreat he wrote an apology for his party, entitled, "Brief Reasons concerning the Catholic Faith," and he prosecuted his labours for reclaiming apolites and encouraging the wavering, to such a degree, as to make it necessary for him, notwithstanding the patronage
As a zealous catholic, Allen might unquestionably allege the obligations devolved upon him by the conviction of his mind; but how far the plea of conscience will justify the avowal of sentiments, and the encouragement of practices, incompatible with the fundamental principles of personal and social virtue, we must leave for those who undertake the vindication of his character to determine. As an English subject, he was undoubtedly a traitor and rebel; and no casuistry can justify his attempts to overturn the government of a country, deserted by himself, but approved by a majority of its inhabitants. As a writer he may be justly considered as one of the ablest advocates of the Romish church, at the period in which he lived. His works, besides those already mentioned, are, “A Defence of the Lawful Power and Authority of the Priesthood to Remit Sins,” to which are annexed two other tracts, viz. “The People’s Duty in Confessing” and “An Explanation of the Doctrine of the Catholic Church, with Respect to Indulgences.” Printed at Louvain in 1567, 8vo; “Of Sacraments in General, of the Enchiridion, of the Sacraments of the Masses, three books, addressed to pope Gregory XIII.” Printed at Antwerp in 1576; “Of the worship due to Saints, and their Relics;” “A True, sincere, and modest defence of Christian Catholics, that suffered for their faith at home and abroad, &c.” Printed in 1583, which was an answer to a book written by lord Burleigh, and esteemed the best of the cardinal’s writings; so that the learned Edmund Bolton says of it, “a princely, grave, and flourishing piece of natural and exquisite English is Cardinal Alan’s Apology.” Biog. Brit.

Alan, in Geography, a town and province of Turkestan in Persia.

Alan, or Camel, a river of England, rises north of Camelford, and runs into the sea two miles below Padstow, in Cornwall.

Alan Bay, lies on the west side of Cornwall, in the Mediterranean.

ALANA, in Ancient Geography, a town of Ethiopia in Egypt, according to Pliny.

ALANCH, in Geography, a town of France, in the department of the Monts of the Rhone, two leagues north-east of Marseilles, and four south of Aix.

ALAND, an island in the Baltic, at the entrance of the Gulf of Bothnia, situated between the province of Upland in Sweden and Finland, gives name to a cluster of islands, and is about 40 miles in length, and from 12 to 16 in breadth. It contains about 15 villages, and 9000 inhabitants, who speak the Swedish language; but are included under the government.
government of Finland, since the year 1634, both as to spiritual and temporal affairs. The banks of the soil, as to Mr. Coke, who visited it, to be granite. It is so fertile, that the inhabitants seldom experience any scarcity of corn; it has also rich pastures, forests of wood, and lime-stone quarries. The inhabitants chiefly cultivate by agriculture, hunting, and fishing; and they traffic in butter, woodenware, coals and lime. The principal place is Cattelholm. This cluster of islands appears as a ridge of rocks, which had been once joined to each other, and the continent, but undermined and separated by the sea. N. lat. 60° 18'. E. long. 19° 40'.

Ala is also the name of an island on the Norway coast, nearly well of Bergen. Ala, a river of Germany, which runs into the Elbe, near Schwakeburg, in the principality of Lauenburg. Alaia, a river, lies on the south coast of Ireland, between the harbour of Waterford and Tramore bay; eight miles south of Waterford. ALANDER, in Ancient Geography, a river of Aria Minor, the source of which is referred by Livy to Plutarch Major.

ALANDSHAGE, a cape at the southern extremity of the island of Amaack.

Alans, or Alani, a people, like the Huns, of Arian origin, but represented by Amnianus Marcilinus, as "victu mitiores et cultu", more polished in their customs and manners. Pliny (H. N. lib. iv. c. 12.) erroneously places them in Europe, beyond the mouth of the Danube; but Josephus (De Bell. Jud. lib. vii. c. 29.) traces their origin more accurately, and describes them as Scythians, who dwelt between the river Tanais and the lake Mesost. Ptolemy mentions two forts of Alans, the one in Europe and the other in Asia. From M. de Guigne, Hist. Huns, tom. ii. who has taken pains in investigating their origin and history, we learn that the name Alani signifies mountain, and that these people derived their appellation from the mountains which they inhabited towards the sources of the Jaack and near the districts of Oufa, and Solomon. In process of time they migrated southward, to the plains that are situated to the north of Circassia and Derbend. About A. D. 737, they formed an alliance with the king of Persia, and entered Media; but being prevented at this time, and afterwards by Adrian, A. D. 130, from pursuing their march to the south, they directed their course westward, and established themselves on the borders of the Danube. About the year 465, they advanced from the banks of the Danube to the Rhine, and being joined by the Vandals, and some other nations, they traversed Gaul, and settled at the foot of the Pyrenees. In 499 they took the advantage of the revolt of those troops who were stationed to guard the passage of these mountains, and proceeded into Spain, where they settled in 411. Some of them entered Lutitania, and others the province of Cantabria; and many of them remained in Gaul, particularly in Brittany and Normandy. The Goths in Spain, and the Franks in Gaul, possessed the Alani, so that they were at length confounded with their conquerors. The Alani, according to Amnianus Marcilinus, had no other houses than their waggons, which they removed to such places as they found most convenient for their flocks and herds, which constituted their wealth, and supplied, with their flesh and milk, the means of their subsistence. War was their chief occupation; and whilst their wives and children were left at home, all who were able to bear arms renewed, from time to time, and as they advanced in their progress, their military talents against their neighbours. They deemed it difficult to grow old and die peacefully with their families; those were reckoned the happiest who died in battle, and who had killed the greatest number of their enemies; the feats of those whom they slew formed the chief trappings of their honors; and so devoted were these people to military occupations, that a naked scyphus planted in the ground was the only object of their religious worship. Their divinations were performed by means of rods, chosen with proper charms.

On the banks of the Tanais, says Mr. Gibbon, the military power of the Huns and the Alani encountered each other with equal valor, but with unequal success. The Huns prevailed; the king of the Alani was killed; and the remains of the vanquished nation were dispersed by the ordinary alternative of flight or submission. A colony of exiles found a secure refuge in the mountains of Carccster, between the Euxine and the Caspian, where they still preserve their name and independence. Another colony advanced with more intrepid courage, towards the borders of the Baltic; associated themselves with the northern tribes of Germany, and shared the spoil of the Roman provinces of Gaul and Spain. But the greatest part of the nation of the Alani embraced the offers of an honourable and advantageous union; and the Huns, who esteemed the valor of their foes fortunate enemies, proceeded with an increase of numbers and confidence, to invade the limits of the Gothic empire. Amnianus xxx. 2. M. de Guigne, Hist. des Huns, tom. ii. p. 279. Gibbon's Hist. of the Decl. and Fall of the Rom. Empire, vol. iv. p. 373.

ALANI, a mountain of Scythia, on one side of Imaus, and on the other, of the Hyperborean mountains.

ALANGUER, or ALANQUER, in Geography, a town and district of Portugal, in Estremadura. The town is said to have been built by the Alani, and was anciently called Alekter Kana, i.e. the temple of the Alans. It contains about 3000 inhabitants, five churches, one cafa da miranda, one hospital, and three convents; and it is the chief town of the queen's estates.

ALANORARIOUS, in our Ancient Customs, a keeper or manager of spaniels, or setting-dogs, for the sport of hunting, hawking, &c. The word is formed from the Gothic, alat, a greyhound.

ALAPA, in Geography, mountains of Asiatic Russia, in Siberia, extending from the lake of Jackoia to the confines of Baskia, all having mines of very rich copper.

ALAPAEV, a town of Russia, in the government of Perm, on the river Tagil. N. lat. 58°. E. long. 61° 14'.

ALAPI, in Ornithology, is a species of Torus, in the Linnaean system by Gmelin, and the white-backed thrush of Latham; its specific characters are, that the colour above is olive-brown, the throat and breast black, the abdomen cinerous, and the tail wedge-shaped and blackish. Its legs are yellowish, the wings above cinerous-brown, and superior coverts spotted with white; the male has a white spot on the middle of the back; the female has none, but its chin is white, the rest of the under-part of the body and the points of the coverts of the wings rufy. Its length is six inches; it feeds on ants; seldom flies for any time, though very agile, and is found in the thick woods of Guiana.

ALAPIA, in Ancient Geography, a town of Cilicia, Syria, called also Norca.

ALANGIUM, in Botany, a genus of the decandra monography class and order; the characters of which are, that it has from six to ten linear petals, from 10 to 12 flaminas, the calyx, dentate, in six to ten notches, and superior; the fruit a spherical berry, slightly coraceous, single celled, and
and containing from one to three seeds. There is one spe-
cies, viz., the Alangium of Justice.

Alaric, in Botany, the name of an East-Indian tree, a species of the bixanth, which is used in medicine as a purge and vomits, with the seeds of mulberry.

Alapta, in Ancient Geography, a town of Macedonia, near Aranthus.

Alaquea, a medicinal stone brought from the
Indies, in small glossy fragments; much prized by some
for its efficacy in hemmorhages, when applied externally.

Alar, in Geography, a river of Persia, which runs
into the Caspian sea.

Alaraph, formed from the Arabic verb aris, to
digฤEGE, in the Mahometan Theology, the partition wall
that separates heaven from hell.

Alaraph gives the denomination to the seventh chapter of the
Alcoran, wherein mention is made of this wall. Some
take it for a fort of limbus for the patriarchs, prophets, &c.
others place here each whole good and evil works so exactly
balance each other, that they neither deserve reward nor
punishment. Others again appropriate this intermediate
space to them who go to war without the leave of their
parents and die, and are excluded paradise for their dis-
obedience, but escape hell as martyrs. Sale's Prel. Dif-
coufe to the Koran, p. 95.

Alarbes, a name given to those Arabian who
dwell in tents, and who are distinguished by their drefs
from others who live in towns.

Alarcon, in Geography, a town of Spain, in the
western part of New Gallicia, on the river Xucar. It was
ruined in 1178, under the reign of the Moors, and
re-established by Alphonus IX. N. lat. 39° 40'. W.
long. 3°.

Alares, in Antiquity, are suppos'd by some authors
to have been a kind of militia, or oldrymen, among the
Romans; so called from ala, a wing, because of their light-
nesses and swiftness in the combat.

Others make them a people of Pannonia; but others,
with more probability, take alares for an adjective, or epiti-
phet, and apply it to the Roman cavalry; because they
were placed in the two wings, or ala, of the army; for
which reason, a body of horse was called ala.

An ala, or wing of auxiliary horse, consisted of 400,
and there were two of these wings annexed to each legion;
and therefore, the whole number of cavalry belonging to
a legion was 1200, of which 400 were Romans, and 800 auxiliaries.

Alares mufuli, in Anatomy. See Pterygoideus.

Alaric I., in Biography and History, king of the
Vigoths, was descended from the noble race of the Balt, or
bald, the most illustrious of the Gothic nation, next to
that of the Amali. With his countrypeople, who were ex-
pelled by the Huns, and whose number is said to have
amounted to near a million of persons, of both sexes and
due ages, and of whom about 200,000 men were Gothic
warriors, Alaric passed the Danube, A. D. 376; and served
with great reputation in the war between the Romans and
the Goths, which lasted from that time to the year 382,
when they all submitted to Theodofus, and were allowed
to settle in Thrace, on condition of serving in the Roman
armies. Accordingly, he attended Theodofus in his ex-
pedition against the usurper Eugenius, with a body of his
countrymen under his command. But being refused that
preference to which he aspired, he was dissatisfied; and
after the death of Theodofus, and, as it is said, at the in-
flation of his minister Rufinus, he assembled a numerous
army, consisting chiefly of his countrymen, and having first
ravaged Pannonia and Dacia, he proceeded in 376 to make
an invasion into Greece. Having marched through Ma-
cedon and Thessaly, he passed through the straits of Ther-
apole without opposition on the part of Antiochus, pro-
consul of Achæia, or Garontus, who was appointed to guard
them, and laid waste the fairest realms of ancient Greece.
The Athenians preferred their city by delivering to the
emperor the greatest part of their wealth; but the whole ter-
titory of Attica, from the promontory of Sounium to the
town of Megara, was defoliated by the march of his army;
so that Athens itself, according to the allusive language of a
contemporary philospher, resembled the bleeding and
empty skin of a slaughtered victim. The Gothic prince,
having been liberally and splendidly entertained at Athens,
penetrated without delay into Peloponnesus, and wherever
he came defolation and deserts marked his footsteps. Those
only could be deemed happy, whose premature death pre-
vented their witnessing the misfortune of their females,
the slavery of their families, the conflagration of their cities,
and the destruction of every thing valuable and curious which
they possessed. In this peninsula, the famous general Sti-
licho, with his fleet and army, came up with Alaric, and
obliged him to retreat to the mountain of Phoebo in Arc-
dad, and there invested his camp: but either by negli-
gence or connivance permitted him to escape across the
gulf of Corinth, to Epirus. Being in full possession of
this important province, Alaric had sufficient time to con-
clude the treaty, which he secretly negotiated with the
ministers of Constantinople. In consequence of this treaty,
he was declared master-general of the eastern Illyricum,
which comprehended the cities and provinces he had for-
lately laid waste; and the enemy of Rome became the ally
and servant of the emperor of the east. Whilst the Go-
thic prince was thus preferred by Arcadius, Stilicho
was declared a public enemy, and his calumny feit and
confounded. At the same period, A.D. 395, Alaric,
with the unanimous consent of the barbarian chiefants,
was elevated, according to ancient custom, on a shield,
and solemnly proclaimed king of the Visigoths. In the plenti-
doer of power which he had thus acquired, by the grant
of Arcadius, and the suffrage of his own nation, he
avoided his resolution of invading the dominions of the
west; and having annulled both Arcadius the emperor of
the east, and Honorius the Roman emperor, by deceitful
promises, till he was prepared for the execution of his pur-
pose, he entered Italy in the year 406, laid waste the
country, and carried off a great quantity of spoil and an
incredible number of captives. In 402 he ravaged the
provinces of Venetia and Liguria; in 403, advanced to-
wards Milan, whence Honorius hastily fled; and purifying
the timid emperor to the fortress of Alfi, a town of Li-
guria, on the banks of the Tamar. In the mean while
Stilicho, at the head of the Ostrogoths and imperial
guard, marched to the relief of the Imperial captives, and arrived
soon enough to prevent the indignity of a plunderer by ex-
ploitation, which the barbarians had proposed. By a suc-
sessful action, in which he forced his way through the
Gothic camp to the walls of Alfi, he revived the
hopes, and vindicated the honour of Rome. On this occasion,
a military council of the Gothic nation was assembled, in
which Alaric displayed the spirit of the conquerer of
Rome, and concluded an animating speech, by the solemn
and positive assurance, that he was resolved to find in
Italy either a kingdom or a grave. Whilst the Christian
Goths were devoutly employed in celebrating the festival of
Easter, Stilicho determined to attack them. The
camp of the Goths, which Alaric had pitched in the
neighbourhood
neighbourhood of Pollentia, was thrown into confusion by the sudden and impetuous charge of the Imperial cavalry: the engagement which succeeded was long maintained with equal valour and success; but at the moment when the victory of Alaric was almost decided by the defeat of the cavalry, Stilicho led the Roman and Barbarian infantry to the attack, and determined the fate of the day. The Goths retreated from the field of battle; the intrenchments of their camp were forced; and the scene of rapine and slaughter made some atonement for the calamities which they had inflicted on the subjects of the empire. The magnificent spoils of Corinth and Argos enriched the veterans of the West; the captive wife of Alaric was reduced to the necessity of imploving the mercy of the inflicting foe; and many thousand prisoners, rescued from the Gothic chains, dispersed through the provinces of Italy the praises of their heroic deliverer. Alaric still maintained that invincible spirit, which rife upon every misfortune, and derives new resources from adversity; and he boldly resolved to break through the unguarded pass of the Apennine, to spread devastation over the fruitful face of Tuscany, and to conquer or die before the gates of Rome. But Stilicho saved the capital, entered into a negotiation with the enemy, and induced him to repass the Po, with the remains of the flourishing army which he had led into Italy. In his retreat, however, he took possession of Verona; but having been defeated in a bloody action near the walls of this city, he escaped by the swiftness of his horse. After this disaster he retired with the shattered remains of his army to the mountains, where he left the greatest part of them by hunger and disease, and by devastation; and from hence he finally retreated into Thrace, and thus Italy was liberated.

It was not long after this event before Alaric was recommended by Stilicho to Honorius, and appointed by this weak prince master-general of the Roman armies in Western Illyricum. Whilst Stilicho refused his pretensions to the provinces of the East, and was anxious to employ Alaric and his forces at a distance from Italy, the Gothic king perceived his design; andprotracting his languid operations in Thessaly and Epirus, he held a doubtful, and perhaps a treacherous, correspondence with the two rival courts, and advanced to Aemona, on the confines of Italy, with a view of enforcing his demands on the Roman court, for the recompence of ineffectual services. The demand was supported by Stilicho, who lost his life during the besiegment of the city; and the delay furnished Alaric with a pretext for again entering Italy, in 408. By bold and rapid marches he passed the Alps and the Po; pillaged the cities of Aquileia, Altinum, Concordia, and Cremona, which yielded to his arms; increased his forces by the accession of 30,000 auxiliaries; and at length pitched his camp under the walls of Rome. The city was soon reduced to the utmost extremities of famine and pestilence, and a negotiation was commenced and terminated in a raid, the payment of which induced Alaric, A.D. 409, to raise the siege, and to withdraw his army into Tuscany. Here the Gothic standard became the refuge of 40,000 Barbarian slaves, who had broken their chains, and aspired, under the command of their great deliverer, to revenge the injuries, and the disgrace, of their cruel servitude. About the same time he received a reinforcement of Goths and Huns, whom Ataulphus, or Adolphus, the brother of his wife, had conducted, at his pressing invitation, from the banks of the Danube to those of the Tiber, and who had cut their way, with some difficulty and loss, through the superior numbers of the Imperial troops. Alaric was now at the head of 100,000 fighting men; and though Italy pronounced his name with terror and respect, he professed moderation, and repeatedly declared, that it was his desire to be considered as the friend of peace, and of the Romans. Ambassadors were sent to the court of Honorius at Ravenna to negotiate a treaty; but he insisted on his military rank in the empire, and the possession of some of the provinces between Italy and the Danube. The terms were rejected; and Alaric again advanced to Rome, A.D. 409. Having taken possession of the port of Ostia, he compelled the city to surrender, and deposed Attilius, the prefect of the city, to the dignity of Emperor. He then conducted the new emperor to the gates of Ravenna, with a resolution of depriving Honorius; but Attilius himself was disengaged with Alaric and depposed. The court of Ravenna, however, instead of taking this advantage of his circumstance to effect peace, offered an insult to Alaric, which provoked his resentment and induced him to march back to Rome with a determination to sate his appetite for plunder and vengeance. On the 24th of August, A.D. 410, the Gothic army entered Rome; and thus 1163 years after the foundation of the Imperial city, which had yielded and civilized to considerable part of mankind, it was delivered to the licentious fury of the tribes of Germany and Scythia. As some of the Goths were Christians, they spared the lives of the unsuspecting citizens, and respected the churches as holy and inviolable sanctuaries; but the Huns, and other Heathen Barbarians, committed the most horrid massacres, rapes, and violence of every kind, without restraint. After a pillage and devastation of six days, the Gothic army evacuated Rome; and their intrepid leader, at the head of an army, encumbered with rich and weighty spoils, advanced to the southern parts of Italy, destroying whatever dared to oppose his passage, and contenting himself with the plunder of the unoffending country. Having arrived at the extremity of Italy, his ambition was excited by the near prospect of the fertile isles of Sicily. But when the first division of the Goths had embarked, in order to pass the Straits of Rhgium and Melfina, a tempest arose, which sunk or scattered many of the transports, and daunted the mariners, and their whole design was defeated by the premature death of Alaric, which, fixed, after a short illness, the fatal term of his conquests, A.D. 410. His funeral was celebrated with mournful applause; his body was buried in the bed of the small river Bucinthus, which washed the walls of Constance, and which for this purpose was diverted from its course and then restored; and the place of his interment was concealed by the massacre of the prisoners who had been employed in the work. Of the character of Alaric it is sufficient to say, that he professed more humanity, moderation, and fidelity to his engagements than many of the clans of Barbarian conquerors; and that his exploits have rendered his name memorable in the most civilized parts of the world. Alaric says Lardner, (Works, vol. ix. p. 180), was a Goth, and therefore called a Barbarian; but he was a man of a great and generous mind, and a Christian of the Arian denomination. When Rome was sacked and plunders, the calamity was attended with some favourable circumstances, resulting from the generosity of Alaric, and his profession as a Christian. By ordering the lives of men to be spared as much as possible, and the churches to be respected, many Christians and Pagans were preferred. Although, adds this candid writer, the taking of Rome by Alaric was the occasion of many reflections upon the Christians, from which they have been vindicated both by Augustine and Origen, the event was very prejudicial to the interests of Gentilism, and consequently conducive to the progress of the Christian religion.

ALARIC II. king of the Visigoths, succeeded his father Euric in 484, and reigned over all the country between the Rhone and the Garonne; adapting himself to the Theodosian collection of laws, which he published as the law of the Visigoths, and which has been since known by the title of the code of Alaric. By permission of this Arian prince, the orthodox prelates held a council at Agde in 506; but notwithstanding this influence of toleration, Clovis, the powerful king of the Franks, engaged in a war with a view of dispossessing him of his dominions, and alluded as the motive of it, that he was going to see the Arians proprietors of the fairwell portion of Gaul: "let us march," says he in his speech to the Nobles at Paris, "and with the aid of God vanquish the heretics, and then possess and divide their fertile provinces." After holding a conference with Alaric, in a small island of the Loire, near Amborf, which seemed to terminate amicably, Clovis marched against him with the confidence and enthusiasm of a meigner commisioned from heaven, and having passed the ford of the Tart, over the Vivonne, to which he was guided by a white hart of singular size and beauty, he halted, under the direction of a flaming meteor that hovered over the cathedral of Poitiers, to attack the Gothic army, more numerous than his own, but enfeebled by a long and luxurious peace. At a village about ten miles south of Poitiers, still named Champagné St. Hilaire, the two armies engaged; but that of the Goths was prepared for a defeat by terror and confusion. They rallied, however, in their extreme diftrusts, and the martial youths, who had clamorously demanded the battle, refused to survive the ignominy of flight. The two kings encountered each other in single combat. Alaric fell by the hand of his rival, A. D. 507, and the victorious Frank was preferred by the goodhearts of his curials, and the vigour of his horse, from the spears of two desperate Goths, who furiously rode against him, to revenge the death of their sovereign. Alaric was succeeded by a natural son, Gelas, who took possession of his throne. Mod. Un. Hist. vol. xvi. p. 6. Gibbon's Hist. &c. vol. vi. p. 330—335.

ALARIO, in Ornithology, Cape inch of Latham, or sarrow from the Cape of Good Hope of Albinius, a species of Fringilla, with the head and breast black, the body chesnut-colour and under white, and the four lateral feathers of the tail marked with a small black line. It is in length about 4 inches, and found at the Cape of Good Hope.

ALARIS pinna, in Anatomy, the innert of the three veins in the bend of the arm.

ALARM, in the Military Art, properly denotes a sudden apprehension, conceived from some noise, or report, called also alarm, and signified by firing a cannon, beat of a drum, &c., which makes men run to their arms, and stand on their guard.

The word is French, formed from the Italian allarmi, to alarm; whence gradate allarmi, q. d. to call to arms.

Alarms are either true, that is, founded on just notice, or false. False alarms are frequently given by an enemy, either to fatigue the other's army, or by way of diversion; to keep themselves safe and quiet from attacks. Alarms of this kind are sometimes designed to try the vigilance of the picket-guard, and to render them distinctly attentive to their duty. To remedy the inconveniences of formal alarms, and prevent the horror and confusion of trumpets, and noise of warlike cries, the captains usually give the alarm, by silent advice, without noise.

ALARMS bell, that which is rung to call the people together, on some such occasion as a fire, mutiny, or the appearance of an enemy. This is what the French call tocsin. See Belfry.

ALARUM-post, is the ground appointed to each regiment, by the quarter-miller-general, to which it is to march in case of an alarm. In a garrison, the alarm-post is the place where every regiment is ordered to draw up, on ordinary occasions.

ALARMS, in Fencing, denotes a step, or stamp, made on the ground with the advancing foot.

This coincides with what is otherwise called an appel, or challenge.

ALARUM, or rather ALARUM, is also used for an instrument to awaken persons at a certain hour; one very simple contrivance of this kind, is that used by weavers. See Weaver's Alarm.

ALARO, in Geography, a river of Italy, which rises in the Apennine, and runs into the sea near Cape Stilo, in Calabria Ultra.

ALARODII, in Ancient Geography, a people who probably inhabited a country near Colchis, which was terminated by the western part of the Euxine sea. Stephan. Byz. Not. Herodot. lib. vii. c. 79.

ALARUM Thrush, in Ornithology. See Belfry.

ALARYS Bay, in Geography, lies on the west coast of Ireland, nearly south-east from Achill Head.

ALASARNE, a nation of the island of Cos.

ALASCANI, in Church History, a sect of Anti-churchans, whose dillingueuing tenet, besides their denying baptism, is said to have been this, that the words, This is my body, in the institution of the eucharist, are not to be understood of the bread, but of the whole action, or celebration of the eucharist. They are said to have taken the name from one Euanne a Lafaio, a Polish baron, superintendent of the church of that country, in Ireland.

ALASCA, or ALASKA, in Geography, a long peninsula on the north-west coast of America, formed by Bristol bay and the ocean on the north-west and north, and by the ocean and the waters of Cook's river, on the south and south-east. A number of islands, at its extremity, of which the chief in their order westward, are Oomenak, Oomahka, and Oumunak, form part of the cluster of islands, called the Northern Archipelago. N. lat. 55° 8' to 58° 1 W. long. 150° 30' to 162°.

ALASCHEIR, a town of Natolin, which, according to some Geographers, is the ancient Hyspia; and according to others, Philadelphia.

ALASCO, JOHN, in Biography, a Polish nobleman, uncle to the king of Poland, as Fox (Acts and Monuments, vol. iii. p. 32.) informs us, was a member of the Catholic church, and, as it is said by some writers, possesed episcopal dignity. But imbibing the principles of the Reformation, he became a Protestant Divine; and being under a necessity of leaving Germany by the persecution that followed the imposition of the Interim, he and his congregation found an asylum in London, under the protection of Edward VI. This excellent prince granted them the church which had lately belonged to the Augustin Friars; and by a charter, A. D. 1550, erected their congregation into a corporation. John Alasco was appointed superintendent, and four other ministers were associated with him. There were also 380 of the congregation, that were made Denizens of England. Burnet says, that he did not conduct himself with that decency which became a stranger who was so kindly received; as he wrote against the orders of the English church, both in the matter of the habits, and the posture of the sacrament, being for sitting rather than kneeling. After the accession of Queen Mary, in 1553, their congregation
gregation was dissolved, their charter revoked, and they were ordered to leave the kingdom. Some few of them remained with two of their teachers; but the greater number sought refuge in foreign countries. Alafco, and many of his companions, embarked for Denmark; but when it was understood that they were of the Helvetian confession, they were required to depart in the midst of winter within two days. From thence they emigrated, first to Lubeck, then to Wil- mar, and afterwards to Hamburg; where disputes about the mode of Christ’s preference in the sacrament excited such animosities, that after much barbarous usage, they were banished out of all these towns, and could find no settlement, till the spring of the following year, when they were kindly received at Embden, in Friesland, and permitted to remain unmolested. Such were the eminent talents and virtues of Alafco, that, during his short residence in England, he had formed a friendship with several considerable persons; and his character was so highly esteemed by Queen Elizabeth, that when she came to the crown, he wrote letters of advice and encouragement to her on the reformation of religion. Among his friends were Melancthon and Erasmus. The former addresses him in terms of high respect, and calls him his patron, and apprehending the necessity of seeking an asylum with him, he assures himself of an hospitable reception with one who could adopt the sentiment of the exiled queen. “Non ignara mali, miferis faccurrenc dico.”

“Touch’d with misfortunes I myself have known, I view with pity woes fo like my own.”

Virgil, En. 1. 634.

Erasmus, in a letter written in 1527, says of him, that he found him “a man of so amiable a disposition, that he should have thought himself sufficiently happy in his single friendship;” and in another letter, after enumerating his excellent qualities, he adds, “that which the young ought to learn of the aged, I, an old man, have learned of this youth.” The friendship between them continued as long as Erasmus lived; and Alafco was probably with him in his last sickness, as he purchased of him, when he lay on his death-bed, his valuable library.


ALA SHARR, i. e. beautiful city, in Geography, a name given by the Turks, to the ancient city of Philadelphia, on account of its beautiful situation.

ALASIA, a province of Thibet in Asia.

ALASSAC, a town of France, in the department of the Corrèze, and district of Brive, two and an half leagues north-west of Brive.

ALATA, a name given by Ptolemy to two towns, one in Arabia Decerta, and another in Arabia Felix.

ALATA CASTRUM, a town of Britain, placed by Ptolemy near the Æthnary of Bodotria, supposed to be the site of Edinburgh.

ALATA MAHA, a navigable river of Georgia in North America, rises in the Cherokee mountains, traveries the hilly country though a distance of 250 miles, and then passing through the flat country, under the name of Ockmulgee, for 150 miles, and receiving the Oconee, assumes the name of Alatamaha. After this juncture, it flows with a gentle current for 100 miles, and discharges itself by several mouths into the Atlantic. The north channel enters the ocean between Sapelo and Wolf Islands; the South channel, which is the largest and deepest, pursues its course between McIntosh and Broughton islands, and by the west coast of St. Simon’s found, between the south end of the island of that name, and the north end of Jekyll island. At its confluence with the Atlantic, it is 500 miles broad.

ALATI, or winged, in Botany, an epithet applied to the seed, stem, or leaf-fall. A seed is alated, when it has an ala or membrane affixed to it, which by its flying serves to disperse it. See Seed. The foot-fall, or petiole of a leaf, is alated, when it spreads out on the side, or is winged with membranes. Alated leaves, are those made up of several pinnated ones, or when the sides of a single petiole connect many foliages. See Leaf.

ALATERNOIDES, in Botany. See Quadruped.

ALATERNUS. See RHAMNUS and Phyllica.

ALATI, in Ornithology. See Achachactli.

ALATRO, or Alatro, an ancient city of Italy, in the Campagna di Roma, which is the site of a bishop, and a dukedom, five leagues south-east of Agnani, and 16 south-east of Rome. N. lat. 41° 44’. E. long. 13° 12.’

ALATUNGA, in Ichthyology, a species of the Scor- dier, with the first pectoral fins very long, and even small fins on each side of the tail. It is found periodically gregarious in the Mediterranean.

ALATVR, in Geography, a town of Russa, in the government of Kafan, and circle of Alatyrks, 80 miles west-north-west of Simbirin. N. lat. 54° 55’. E. long. 46° 14.’

ALATVR, a river of Russa, which runs into the Sura, near Kalyt.

ALAVA, Esquiel, Diego, in Biography, a Spanish divine, bishop of Cordova, was born at Victoria in Alava, and allied in the council of Trent, where he proposed the prohibition for holding living in commendam, and of all ecclesiastical pluralities. He died in 1562; and wrote a valuable work, intitled “De Confliis Universifalibus, &c.” c. of general councils, and the regulations that seem necessary to reform the religion and state of the Church. See ALADA.

ALAVA, in Geography. See ALARA.

ALAVDA, in Entomology, a species of Cuculio, cinereus; subglobule thorax, back marked with a transverse band and black spots, and brown legs; found in Pomerania.

ALAVA non irrigata, in Ichthyology, a name given by Rondeletius and Génet to the Blenessis pisitis of Linnaeus, or south Blenny.

ALAVA, Lark, in Ornithology, a genus of birds of the order of passerres; the characters of which are, that the head is cylindrical, subulate, and straight, bending towards the point; the mandibles are of equal size and opening downwards at their base; the tongue is bifid; and the hinder claw is longer than the toe. Pennant adds, that the nostrils are covered with feathers or bristles, and the toes divided to their origin.

The name alauda is, according to Pliny, Stretensius, and Varro, of Gaulish extracdt; and hence the French term, alouette.

The Greeks were acquainted with two species of larks; the one had a tuft on its head, and was denominated κασπαρίδα, or κασπάρια, from κασπάρι, a helmet, which the Latins render galeria, or calista; the other, a common lark, wanted this tuft; though Willughby and Pennant say, that it sometimes bristles the feathers on its head so as to form an occasional crest, which M. Buffon affirms also, from his own observation, with respect to the male. The Germans call it keech, pronouncing it sometimes leứcche, in imitation of its notes; for, according to Linnaeus, it prolongs its tute, tute, tute.
Gmelin enumerates 33 species. 1. A. Acrocephalus vulgaris of Oliva, Cadepeta of Klein, alanda von crysata of Gmelin and Aldrovand, Pallome of Buffon, and field-lark or sky-lark of Ray, Willughby, Pennant, Latham, &c. The specific characters of which are, that the two outermost quills of its tail are white lengthwise externally, and the intermediate ones are ferruginous on the inside; the length is about seven inches. The males of this species are somewhat browner than the females; they have a black collar, and more white on the tail; their size is larger, and their aspect holder; and they exclusively possess the faculty of singing. When the female is impregnated, she forms her nest between two clods of earth, and lines it with herbs and dry roots, being no less attentive to the concealment than to the structure of it. It sometimes builds its nest among corn and in high grass. Each female lays four or five eggs, which are greyish, with brown spots; and the period of her incubation is about 15 days. The young may be taken out of the nest when they are a fortnight old, and they are so hardy, that they may be coldly brought up. Some have said, that the hatches three times in the year; but this must depend on the temperature of the climate. The parent is very tender of her young; and though the does not always cover them with her wings, the directs their motions, supplies their wants, and guards them from danger. The common food of the young sky-larks is worms, caterpillars, ant's eggs, and even grasshopper; and in maturity, they live chiefly on seeds, herbage, and all vegetable substanaces. Those birds, it is said, that are destined for singing, should be caught in October or November; and the males should, as much as possible, be fed; and when they are untractable they should be pinioned, lest they injure themselves by their violence against the roof of the cage. As they cannot cling by the toes it is needless to place bars across their cage; but they should have clean sand at the bottom of the cage, that they may walter in it and be relieved from the vermin which torment them. In Flanders, the young ones are fed with moistened poppy-seeds, and forked crumbs of bread; and when they begin to sing, with sheep's and calves' hearts, lashed with bird eggs; to which are added, wheat, flup, oats, millet, linseed, and the seeds of poppy and hemp, steeped in milk. Their capacity of learning to fly is well known; and to apt is some cock larks, that, after hearing a tune whistled with the pipe, they have caught the whole, and repeat it more agreeably than any linnet or canary bird. In winter every the larks seek the highest and driest situations; but in winter they descend to the plains, and assemble in numerous flocks. In the former fezon they are very lean, and in the latter very fat, as they are always on the ground, and constantly feeding. In mounting to the air, they ascend almost perpendicularly, by successeful springs, and hover at a great height; but in descending, they make an oblique sweep, unless they are pursued by a ravenous bird, or attracted by a mate, in either of which cases they fall like a stone. These small birds, at the height to which they soar, are liable to be wafted by the wind; and they have been observed at sea, clinging to the masts and cordage of ships. Sir Hans Sloane observed some of them 40 miles from the coast, and count Tarrigeti met them on the Mediterranean. It is conjectured, that those which are found in America have been driven thither by the wind. Some have suppos'd, that they are not birds of sallage, at least in the more southern and milder climates of Europe; but they are occasionally concealed under some rock or sheltered cave; and this concealment was known to Aristotle (Hist. Anim. lib. viii. 16.), and has been ascertained by Klein. Thoren (Voyage du Levant, tom. i. p. 493.) says, that the larks appear in Egypt in the month of September, and continue there till the end of the year. See Migration.

The lark is found in all the inhabited parts of both continents, as far as the Cape of Good Hope; though Vilhaut says, that it is not found on the Gold coast; nor, according to Averroes, in Andalusia.

This bird, and the wood-lark, are the only birds which sing whilst they fly. The higher it soars, the more it strains its voice, and lowers it till it quite dies away in descending. When it ascends beyond our sight, its music is distinctly heard; and its song, which is full of swells and falls, and thus delightful for its variety, commences before the earliest dawn. Milton, in his, Allegro, has admirably expressed these circumstances; and bishop Newton observes, that the poet gives a fine picture of the state of the mind, whilst he is beautifully describing the scene of rural cheerfulness, in a situation,

"To hear the lark begin his flight,
And singing startle the dull night,
From his watch-tower in the skies,
Till the dapple dawn doth rise."

In a state of freedom, the lark begins its song early in the spring, which is its season of love and pairing, and continues to warble during the whole of the summer. The Hon. Daines Barrington (Phil. Trans. vol. lxxxiii. part ii. p. 282.), reckons this among the best of the singing larks: and as it copies the warble of every other bird, he terms it a mocking-bird. See Song of Birds.

These birds, which are esteemed a delicacy for the table, though Linnaeus thinks the food improper for gravely complaints, are taken with us in the greatest numbers, in the neighbourhood of Dundable. The fenon begins about the 14th of September, and ends the 25th of February; and during this time, about 4000 dozen are caufe for supplying the London markets. These caught in the day, are taken in Clap-nets, till the 14th of November. See DOING. But when the weather becomes gloomy, and also in the night, the larker makes use of a tramnel-net, 27 or 28 feet long, and five broad, which is put upon two poles 18 feet long, and carried by men under each arm, who pass over the fields, and quarter the grounds as a setting dog. When they see or feel a lark strike the net, they drop it down, and thus the birds are taken. The darkest nights are the most proper for their sport; and the net will not only take larks, but all other birds that roost on the ground; among which are woodcocks, fine pipes, partridges, quails, field-fares, and several others. In the depth of winter people sometimes take great numbers of larks by nooses of horse-hair. The method is this: take 100 or 200 yards of packthread; filter at every six inches a noose made of double horse-hair; at every 20 yards the line is to be pegged down to the ground, and so left ready to take them. The time to use this is, when the ground is covered with snow, and the larks are to be allowed to it by some white cats, scattered among the nooses; they will soon fly to these, and in eating will be hung by the nooses. They must be taken away as soon as three or four are hung, otherwise the net will be frightened; but though the others are feared away just where the sportman comes, some will be feeding at the other end of the line, and the sport may be thus continued for a long time. As the sky-lark is a kind of mocking-bird, and apt to catch the note of any other which hangs near it, even after its own note is fixed; the bird-fanciers often place it next to one which hath not been long caught, in order, as they term it, to keep the caged sky-lark honest.

The
The method of catching larks by lime-twigs, practised in French Lorraine, is as follows. For this purpose, 1500 or 2000 willow rods, about three feet, ten inches long, straight and well smoothed, are provided. These are sharpened and slightly burnt at one end, and the space of about a foot from the other end is covered with bird-lime. The flake is planted in parallel rows, in a situation which abounds with larks; the rows are at such a distance as to admit of a person passing between them; and the flake is fixed at the distance of a foot from each other, and opposite to the interval in the next row. The chief art consists in placing them, so that they shall retain their perpendicular position till they are touched, and fall immediately upon a lark’s brushing against them in its flight. When the lined rods are planted, an oblong square is traced, with one of its sides presented to the ground where the larks are lodged, and at each corner is erected a flag, which serves as a mark to the fowlers, and sometimes as a signal for their manoeuvres. In Autumn, about four or five o’clock in the afternoon, the company attending this sport is divided into two detachments; one is assembled at the flag on the right, and the other at that on the left; and each observing the most profound silence, extends itself in an arch, so as to meet at the distance of half a league from the front, and then form one rank, gradually closing as it advances to the rods, and thus driving the larks before it. About five-fifteen, the middle of the line ought to be within two or three hundred paces from the front; and this is the time when they charge; that is, they proceed cautiously, pause or lie on the ground, rise up or pull forward, according to the commands of their leader. Upon the proper conduct of these manoeuvres depends the success of the sport; for thus the larks will be enclosed, and mounting no higher than three or four feet, they will rush forward and be caught among the lime-rods, and falling to the ground with these, they may be picked up by the hand. If it be not too late, a second line is made on the opposite side, at the distance of 50 paces, which drives back the larks that had escaped; and this is called taking about. One hundred dozen of larks or more are sometimes caught in one of these sweeps, and the sport is reckoned bad when only 25 dozen are taken. Although lark numbers are taken in this way, and others destroyed by the voracious tribes, their fecundity is very great; and they are naturally long-lived, the term of their excellence being, according to Olbius, ten years, and as others say, 12, 22 and even 24 years. Larks abound in various parts of Germany, and Keyfier (Travels, vol. iv. p. 315.) informs us, that those about Leipzig, where they are very numerous, are very fat, and have a very delicate flavour. The excise on these birds produces 6000 dollars, or about 500/. yearly. They are also taken in great numbers in the country about Naumburg, Meinfurg, and Halie. Of these species there are three varieties; viz. the white sky-lark, which is seldom of a snowy white colour, but tinged with yellow or brown, and which is chiefly found on the northern shores of the Baltic, in Denmark and Sweden, and in Norway; and occasionally in the vicinity of Hildeheim in Lower Saxony, and in other places. A second variety is the black sky-lark, represented by Albin as entirely of a dull brown and reddish colour, verging to black, excepting the back of the head, which is of a dun yellow, and the lower part of the belly, which has feathers edged with white: the feet, toes and nails, being of a dirty yellow. The subject of this description was caught in a meadow near Highgate, where such birds are found. A perfectly black lark is mentioned by Mauduit, which was caught in the plain of Mont-}

{A. pratensis, or pratorum sphenodymae of Aldrovand and Willoughby, abente de pre, or la faulque of Buffon, tit-lark of Tennant, Ray, Allen, and Latham, &c. of which the specific characters are, that above it is a greenish brown; its two outer tail-feathers are externally white, and it has a white line on its eyebrows. This bird is of an elegant slender shape; five inches and a half long; its bill is black; the back and head of a greenish brown, spotted with black; the throat and lower part of the belly are white; the breast yellow, marked with oblong spots of black: the tail is dull: the exterior feather is varied by a bar of white, which runs across the end and takes in the whole outmost web; the claw on the hind toe is very long, and the feet yellowish. The male has in general more yellow than the female, on the throat, breast, legs and feet. The tit-lark is found generally in meadows and low marshy grounds; and, like other larks, it makes its nest among the grasses, and lays five or six eggs, which are roundish, of a duny red colour, with many small spots. While the female hatches, the male sits on a neighbouring tree, and rides at times, flapping and clapping its wings. It feeds chiefly on the worms and insects, which it finds in new-ploughed lands; and it will live for a long time on no other food than small seeds. Like the wood-lark, it sits on trees; but it is flushed at the head noise, and shoots with a rapid flight; it has a very remarkable fine note, flanging in all situations; on trees, on the ground, while it is sporting in the air, and particularly in its descent. This bird, and many others, such as the thrush, blackbird, willow-wren, &c. become silent about Midsummer, and resume their notes in September; hence this interval is the most mute of the year’s three vocal seasons, Spring, Summer and Autumn. Perhaps the birds are induced to sing again as the autumnal temperament resembles the vernal. The tit-lark inhabits England, France, Germany, Italy, and Sweden. Albin says, that it appears in England about the beginning of April, and that it departs about the month of September. It is said to be fond of the company of its fellows, and when it cannot get the society of these, it will intermingle with the flocks of finches and limnates, which it meets with in its peregrination. The varieties of this species are the white tit-lark, differing from the preceding in its plumage, which is yellowish white, but yellower on the wings, with brown bill and feet, seen by Aldrovand in Italy, and reckoned by Ray in the birds of Poland; and the tit-lark with black feet. 3. A. arvensis, le cuivre de Buffon, wood-lark of English writers, is specifically characterized by a white annular belt, encircling its head. This bird is smaller than the sky-lark, and of a shorter thicker form; the colour of the plumage paler; the first feather of the wing is shorter than the second; the bill is very long and somewhat bent; it perches on trees; it haunts the uncultivated tracts near copses, without penetrating the woods, whence its name; its wings, or its form, makes warble of the nightingale, or the whistling of the blackbird, than that of the sky-lark; its note being less sonorous and less varied, though not less sweet; and it is heard not only in the day but in the night, both when it flies and when it sits on a bough.

This bird builds on the ground, and forms its nest on the outside with moss, and on the inside with dried bents, lined with a few hairs, and conceals it with a turf; and the situation of the eggs is ground where the grass is rank, or become brown. It lays four or five eggs, which are dusky and blotched with deep brown; its fecundity is inferior to that
that of the sky-lark, and its numbers are not so great; it breeds earlier, since its young are sometimes flown in the middle of March, and therefore they pair in February, at which time, and not before, they part with their last year's brood; whereas the common lark does not hatch before the month of May. This is a very tender and delicate bird; so that, according to Albin, it is impossible to rear the young taken out of the nest: but this is the case only in England and such cold climates, for in Italy they are removed from the nest, and reared at first like the nightingale, and afterwards fed upon pane and milklet. The wood-lark feeds on beetles, caterpillars, and seeds; its tongue is forked; its flomach muscular and feedy; and it has no claw, but a moderate dilatation of the lower part of the oesophagus, and its ceca are very small. It lives ten or twelve years. The males are distinguished from the females by their larger size; the crown of the head is also of a darker colour, and the hind tail longer; its breast is more spotted, and its great wing-quills edged with olive, which in the female is grey. The wood-lark mounts high, warbling its notes, and hovering in the air; it flies in flocks during the winter colds; it is found in Sweden and Italy, and is probably diffused through the intervening countries, and consequently over the greatest part of Europe. It is also found in Siberia, as far as Kamtchatska, and in the island of Madagascar. Of these larks, like the common fort, some are migratory, and some stationary. In autumn the wood-lark is fat, and is then excellent for food. There are three feafons, according to Albin, for catching wood-larks. The first is the summer, or the months of June, July, and August, when the small branchers begin to chirp, before they undergo the moulding. The second is the month of September, when they fly in flocks and roam from one country to another, roving over the pasture grounds, and perching on trees near lime kilns. The young birds now change their plumage, and are not distinguished from the old ones. The third and the most favourable season for catching wood-larks, begins with the month of January, and lasts till the end of February, when they separate to pair. The young birds, which are then caught, make generally the bell fingers; they chirp a few days after, and with a clearer tone than those that are caught at any other season. Those that are taken in the Summer months are usually taken in nets, by the help of a hawk. With this view, the sportman is to go out in a dewy morning, and fixing on some hill, he is to go to that side of it which faces the rising sun; for this is the place which they are sure to frequent. He is then to take out a hawk, and a small net at the end of a flick: when he fees a bird, he is to shew the hawk, upon which it will squat down; and on his approaching near, and making the hawk flutter over the place, the bird will only lie so much the closer, so that he may go up and lay the net over it, and thus take it without injury. The bell wood-larks that are kept in cages, have been caught in this manner. A better way of taking numbers of them, is to prepare a net made like that for taking partridges, only with much smaller meshes; three or four perfections are to go out with this, and one of them is to take out a hawk, which serves in the same manner for the larks, as the setting-dog does for the partridges. Wherever a flock of these larks is seen together, which is very common, the whole flight keeping with the female till the next coupling season, the hawk is to be shewn; and on his hovering, they will all lie still, and the net may be easily drawn so completely over them, that not one can escape. The best time for taking this bird for the cage is July, or the preceding or following month. Those that are put into the cage at this time, sing presently, but their long-time is not lasting, for they soon fall to molting, in which late many die; but if they get over it, they commonly prove very healthful afterwards, become very tame and familiar, and sing sweetly. Those which are taken in the latter end of September are generally very strong and sprightly; but they do not sing till after Christmas. Those taken in January and February generally prove the best of all; they generally begin singing in two or three days, or at the utmost in a week after they are taken.

The method of keeping them in health in the cage is: there must be two pans of food, one containing meat, the other oatmeal and hampce. The following is very good food: boil an egg very hard, to which add the crumb of a half-penny loaf and as much hemp-fee; let the egg be chopped very small, and the hempseed bruised in a mortar; when these are mixed, the bread is to be crumbled in among the ort, and the whole to be rolled together with a common rolling-pin, and kept for use. There must be some fine small gravel strewn at the bottom of the cage, and renewed at farthest once in a week. This will prevent the bird's feet from injury by being clogged with dung; and if it is basking in this will also keep him from being lousy, after which few birds are of much use. A perch must be in the cage, and it should be lined with green baize, or made of fine matting, of which the lark is very fond. When the bird is first taken, some meat should be thrown on the sand in the bottom of the cage; for the bird will be sometimes almost famished before he finds the meat in the pan. The cock-bird of this kind is known from the hen by the loudness and length of his call, by his tailfeathers he walks about the cage, and by his doubling his notes in the evening, as if he were going with his mate to roost. A better rule than all others, however, is his singing strongly; for the hen wood-lark sings but very weakly. Both the cock and hen of this kind are tender, and subject to many disorders; the principal of these are, cramps, giddiness of the head, and breathing lice. Cleanliness is the best cure for the first, and the least of these complaints; but we know of no cure for the other. A good strong bird will last very well for five or six years, and frequently improve during the whole of this time. The lark is not only a very agreeable bird for the cage, but it will also live upon almost any food, so that it have once a week a fresh tuft of three-leaved grasses put into the cage with it. The wood-lark is one of the sweetest of our singing-birds, and is indeed very little inferior to the nightingale, when in good health; but we are not to judge by such as are made feebly by improper food, or want of cleanliness in their cages.
wagtail and tilt-lark. It inhabits heaths and uncultivated tracts, and frequently the oat-field, after the corn is reaped, where birds of this species gather together in numerous flocks. In spring, the male perches to discover or to woo his mate, and sometimes he mounts into the air, lingering with all his might, and then descends quickly to pair on the ground. When a person approaches the nest, the female betrays her fear by her cries; whereas, other larks are silent and unmoved, when danger is apprehended. They make their nest close to the ground, sometimes in furze-bushes, and form it of moss, lined with straw and horsehair. The egg is half the size of that of the sky-lark, which it resembles, and its tints are lighter. When the young males are reared for the sake of their song, they require great attention. The egg must be covered with a green cloth, little light be admitted, and plenty of ant's eggs must be provided. By degrees bluish hemp-feed, mixed with flour and yolks of eggs, may be substituted. The meadow larks are caught like the sky larks, with the drag-net, and also with line twigs, placed in the trees which they haunt. They associate with the finches; and both arrive and depart with these. They are found in Italy, Germany, England, Sweden, &c. They live on small seeds and insects; and their flesh, when fat, is excellent. The meadow-lark of Britain differs from that of Linnaeus; as in that of the latter, all the quills of the tail, except the two middle ones, are white from their origin to half their length, but in that of the former, the two outermost quills only are white. Of this species there is a variety, viz. the pinicola.

5. A. trivialis. A. siponaria of Brünn, pipola f. anthus of Aldrovand, L'audou io pipio of Buffon, the small lark of Ray and Willughby, the pipit lark of Albin, the graffunner of Latham, is distinguished by brown tail-quills, the outermost half white, the second white at its middle like tip, with a double whitish line on the wings. The German epithet pipio, and the English pipit, formed from the Latin pipo, which signifies to utter a feeble cry like chickens, alludes to the bibulous notes of this bird. Its cry, especially in winter, is like that of the graffunner, but stronger and shriller, and it utters this, both when perched on the tailed branches among the bushes, and when it is on the wing. Its tones are soft, harmonious and clear. This little bird builds its nest in solitary spots, concealed under a turf, and its young are frequently a prey to the adders. It lays five eggs of a light greenish colour, thinly sprinkled with deeper coloured specks. The graffunner larks appear in England about the middle of September, and great numbers of them are caught in the environs of London. They are found in Sweden and Germany, as well as in England: they frequent the heaths and plains, and flutter at a moderate height; they chiefly feed, as the slender form of their bill indicates, on insects and small seeds, and from the diminutive size of this bird, being about five inches and a half long, it may be inferred, that it is not long-lived.

6. A. crista, Ketoabas; astra, astra, i.e. the helmet-lark having a crest of Ariflett; the galeria of Pliny and galera of Varro; A. cristata of Brünn, A. cristata major of Ray, Aldrovand and Gmelin; lathina cristata of Oliva; le coque de Buffon, the helmet or crest of the German, and crested lark of Willughby, Albin and Latham, is distinguished by black tail-quills, the two outermost white at their exterior edge, its head crested, and its feet black. Its length is about six inches and three quarters. It lives in the meadows and fields, on the sides of ditches and the backs of furrows; it is often seen at the margin of water, and on the high roads, rarely in the skirts of woods, perched on a tree, and sometimes on the tops of houses, and of abbeys, &c. This lark, though not so common as the sky-lark, is found in most parts of Europe, in Italy, France, Germany, Poland, Denmark, Russia, Scotland; and does not change its abode in winter. The song of the males is loud, and yet mellow and pleasant; and their whistling is usually accompanied with a quivering of the wings. They use the field to hail the return of spring, and the dawn of the morning, and they sometimes warble in the night; being animated by fine weather, but depressed and silenced by clouds and rain; and they generally fly till the end of September. The male is distinguished, not only by the excellence of his warble, but by the strength of his call, the bulk of his head, and by a large portion of black on his breast. The female contracts her neck like the common lark, but often near the highways; the lays four or five eggs, which are all-coloured, with numerous dingy brown spots, and takes little concern in hatching them; but when the young are excluded, the provides for them till they are flown. They are said to breed twice in the year. They are easily reared, but cannot be supported in a cage, without difficulty, for a whole year: their bell food is ant's eggs, ox and sheep's hearts minced, and bruised hemp-feed and millet. The proper season for raising these birds is autumn; and great numbers are then caught in a plump flate on the verge of the forests. They may be decoyed by the call, and thus differ from sky-larks; besides, they never conure in flocks; their plumage is less varied and more white; the bill longer, the tail and wings shorter; they do not mount so high in the air, are less able to struggle with the wind, and return sooner to the ground. In other respects the two species are alike.

The crested lark is the only one that may be instructed in a month; it learns many airs perfectly, which it repeats without confusion, and retains nothing of its native warble; and in these particulars it is superior to the canary.

7. A. cristata, L'Alouette noir d'or des Sabres of Buffon, the rufous-tailed lark of Latham, is specifically distinguished by its blackish brown colour; its neck and back rufous-orange; the tail-quills rufous at their outward margin, the lefter and middle convarts of the wings blackish and fulvous, or of a deep yellow at their margin. Its length is scarcely five inches, is much smaller than the common sky-lark, and found at Buenos-Ayres. Buffon observing its plumage to exhibit so striking a resemblance to that of the sky-lark, considers it as a variety of that species.

8. A. capricorn. A. capricornus of Brünn, la cravatte jaune ou calandre du cap de bonne espece of Buffon, cape lark of Latham, has its three lateral tail-quills tift with white, its throat yellow, margined with black, and its eyebrows yellow. Its length is eight inches, and it is found at the Cape of Good Hope.

9. A. calandra. A. corn crista major and terra prava of Gmelin, calandra of Buffon, calandra of other writers, calandra lark of Latham, is specifically described as having its outermost tail-quill externally altogether white, the second and third tift with white, and a brown stripe on the breast. This bird is mentioned by Oppian in the second century of the Christian Era, under the appellation of Ka22x222; and he describes the bent method of catching it, since recommended by Oliva, which is to spread a net near the brook to which it usually retorts to drink. It is larger than the sky-lark, its length being seven and one-fourth inches, and its bill stronger and shorter; in other respects it exactly resembles the common lark. Its warble is more sonorous, but not less pleasant; so that in Italy a person who sings well is complimented.
complimented by saying, that he sings like a calandra. It
can, like the common lark, imitate the notes of several
birds, and even the chirping of chickens and the love-scall of
the hawk. When calanders are to be caged, in order to have
good singers, they should be taken from the nest before the
first moult, and those are to be preferred which are hatched
in August. Their food should be quite mixed with their
heart, together with seeds and crumbs of bread; and rubbish
should be laid in the cage for whetting their bill, and fuel
for them to welter in when teased with vermin. Their
wings should at first be pinioned, and instead of the top
of the cage, a canvas and feathers should be sublimated. When they are
reconciled to their situation, they will sing incessantly, and
even neglect their food to repeat their warble. The male
is larger and blacker round the neck than the female, which
has only a very narrow collar. The calandra needles on the
ground, like the common lark, under a gravelly tuft, and lays
four or five eggs. It is found in Italy, Sarathina, Provence
in France, the Phrynes, Syria, near Aleppo, the southern
part of Russia, the defects of Tartary, and even America
whether it might have been driven by the winds across the
Atlantic and thence thrive and become naturalized. Adan-
fon regards the calandra as intermediate between the fly-
lark and the thrush; but this is an analogy which must be
refracted to the plumage and external form, for the habits
of this bird and the thrush are very different.

10. A. alpaeus, A. virginiana of Buffon, bauge-col noir
of Buffon, lark, with a yellow throat of Catesby, and fin-
lark of Pennant. Latham, &c. has these specific characters;
the tail-quirks are half white on the inside, the throat is
yellow, the fripe under the eyes, and on its back, is black.
Its length is fix and an half inches, and in bulk and habit it
resembles the common lark. It inhabits North America,
Siberia, Russia and Poland; migrates in flocks, feeds on
oats and other grains and grasses; lives upon the ground;
has little or no song, and its flesh is delicious.

11. A. magnus, merula americana torquata of Buffon, la fer-
acheval ou merle a collier d'americque of Buffon, large lark of
Catesby, and rofent lfe of Peint and Latham, is char-
acterized by Limnæus as having the under-side of the body
yellow, a black curved band on the breast, and the three
lateral quills of the tail white. Above, says Latham, it is
variegated with rusty brown and black'fih, below yellow, with
a black curved fripe on the breast, and the three lateral
quills of the tail white. Its length is 11 inches. It is found
not only in Virginia and Carolina, but in almost the whole
Continent of America; and Limnæus affirms that it occurs
also in Africa. In the late of New York it appears in the
beginning of April, breeds in June, and retires in September
or October. It needles on the ground, and its eggs are
whitish. It lives in Savannas, perches on the tops of bushes,
has a brisk motion upwards and downwards of its tail, eats
carelessly anything that are found on the ground, such as those of the yellow bloomed ornith-
galum; sings agreeably in the spring; and is reckoned good
food.

12. A. minor, lesser field lark of Willughby, field lark
of Latham, is of a reddish brown colour, and the two outer
quirs of the tail are externally white. The throat is yellow;
the breast also yellow, marked with large black spots; the
belly and vent feathers white; the covert of the wings
darkly edged with white; and the legs of a very pale brown.
It is larger than the tit-lark, but distinguished from it by
the very short claw on the hind toe.

13. A. italicus, giraola of Ray and Willughby, gira-
ole of Buffon, and Italian lark of Latham, has the middle quills
of the tail bay, the left but one white at the tip, the two
outermost entirely white. Its fize is that of the fly-lark,
and it has a long nail projecting from each foot. Its head,
neck, back, and wings are of a motled colour, resembling
that of the quail. The general colour of the feathers is a
chactn brown, and their edges are variegated with white,
yellow and red; the back part of its head has a fort of
crown or ring of white feathers; its belly is white; its bill
red; and the corners of the mouth yellow, and its tail is fo
short, that it feems to have none; it is bold, however, and
elegantly variegated with chestnut-colour and white. The
feet are flesh-coloured and the nails white. It is eight
inches long, and inhabits Italy.

14. A. interudiana, farronenne of Buffon, and Longi-
lark of Latham, resembles the tit-lark. Its specific char-
acters are that the left quills but one of the tail are tont
with white; the outermost are partly brown, partly white.
Its length is seven inches. It is found in Louthiana.

15. A. rubra, A. Penfivactia of Buffon, pellucida aux
jones brunes de Penfivactia of Buffon, and red lark of
Pennant and Latham, is of a brown colour, and has the space
about its eyes black, and the two outermost quills of the
tail white. It is about the fize of the meadow-lark. Its
bill, feet, and nails are of a deep brown colour; its neck,
breast, and underpart of the body, of a reddish fulvous
colour, speckled with brown; and the brown foot that sur-
rounds the eyes descends on the cheeks and is bounded by a
zone, partly white and partly bright fulvous. This is a
migratory bird, common to both continents. It appears
in Pennsylvania in the month of March, and advances north-
ward at the end of May; and it was seen by Mr. Edwards
in the vicinity of London. He remarks, that when the
wing is gathered up, the third primary feather reaches to
the tip of the first.

16. A. moffillana, la rouflaine of Buffon, and munl-lark
of Latham, is rufous, below rufous white; its checks and
breast are marked with brown lines; its tail is black with a
rufous margin. Its length is six and one-fourth inches.
The bill, feet and nails are yellowAH. It haunts wet
situations, frequents the sandly margin of the Mefelle, and
sometimes breeds on its banks, near Metz, where it appears
annually in October, and some few are caught. It begins
its song at dawn, which is said to be very pleasant.

17. A. mahabaria, Malabar lark of Latham, has the
primary and secondary wing-feathers and the tail, of a forsid
brown colour, tawny at their margin. The bill is black,
the feathers that form the crest on the head are brown,
and their apex white; those on the neck are tawny with a black
longitudinal streak aalling along the middle; the throat and
abdomen reddish white; the feathers of the back and the
coverts of the wings brown, towards their edge tawny,
and marked with a white spot, and the feet are tawny. This
is a beautiful species and found in Malabar.

18. A. gingica, Gingi lark of Latham, has the upper part
of the body celerous brown, its under side black. The
bill and feet are reddish grey. Its length is four and one-
half inches, and it is found in Coromandel.

19. A. tartara, A. nigra of Fæloc, and black lark
of Latham, has a subfuscated tail, the two intermediate
quirs of the tail slightly white at their limb, the next
whitish at the apex, and the lateral very black. This bird
inhabits the very dry salt deserts between the rivers Volga
and Ural, the Caspian deserts, and the whole southern desert
of Tartary; it is gregarious in winter, solitary in summer,
and has scarcely any song.

20. A. mutabilis, mutable lark of Latham, has a black
forked
furred tail, the outer quills of the tail on both sides unspotted, the rest grey at their apex, and the bill white. It is about seven inches in length, and inhabits the deserts of Africa. This bird, when young, is wholly cinnamon, and the colour gradually changes into black.

21. *A. semirufa*, *A. cristata minor* of Ray and Brünn, the *Ibu* of Buffon, and *A. cristata minor* of Pennant, Willoughby and Latham, is characterized by black tail-quills, the outermost being white on their exterior edge, its head crested, and its back red. The crest is very long in proportion to its face. This bird is distinguished by its cry, *tu, tu, tu*, which is disagreeable, and never uttered except it flies; it likewise mimics oddly the songs of other birds; it frequents heaths, commons, and open woods, where it builds its nest; and in the rigour of winter, when the ground is covered with snow, it returns to dunghills, and picks up its food about barns, and also haunts the highways for the same purpose. It is found in Italy, Austria, Silesia, and Poland, and seen in flocks in the northern counties of England. It remains in Germany through the winter, and leaves the country about the equinox.

22. *A. undulata creola* of Buffon, *undulata lar* of Latham, has its tail quills brown, tawny at the edge, its feet yellowish, and the feathers of its crest black, edged with white. Its length is six and three-fourths inches. This bird can elevate its crest at pleasure; it is properly the bird of the morning, and it begins its song with the earliest dawn, and seems to route the other birds. The male does not lose its mate when the hatches, and when the one is employed in seeking its food, which consists of caterpillars, grasshoppers, and snails, the other keeps watch, to give signal when danger threatens. It was found by M. Guy, in Provence; and Sonnerat brought a bird very like it from the Cape of Good Hope, only that it had no crest, that the colour of the under part of the body was more yellowish, and that none of the quills of the tail or wings were edged with white. It was perhaps a female, or a young bird of the year’s hatch.

23. *A. senegalensis*, *A. senegalensis* of Buffon, *la cristata* of Buffon, and *Senegal lar* of Latham, has the two middle quills of the tail grey, the rest brown, the outermost rufous white on the outer side, and the head somewhat crested. Its length is five and a half inches. It inhabits Africa, and perches on the trees, which grow on the banks of the Niger; and is also seen in the island of Senegal.

24. *A. tchenna*, *tellevacca lar* of Latham, has the four intermediate quills of the tail black, the rest tawny white, the body above tawny, and below tawny white. It inhabits the vicinity of Gibraltar.

25. *A. lophana*, *Portugal lar*, has the quills of the tail tawny latte-cast, the exterior ochreous, the feet flesh-coloured, and the bill red. It is found in Portugal.

26. *A. africana*, le *fide du cap de bonne esperance* of Buffon, *African lar* of Latham, has the tail, the quills, and the covert of the wings brown, edged with white, the inferior part of the body white, variegated with oblong brown spots. Its length is eight inches. It is found at the Cape of Good Hope.

27. *A. cenera*, la *cendrille* of Buffon, *cinereous lar* of Latham, is of a cinereous colour; its belly and vent white; the quills of its wings and tail brown, the outermost externally white near the tip. Its length is six inches. Buffon queries whether there be any analogy between this bird and the cinereous lark which Dr. Shaw saw in great numbers near Bilerta, in Africa?

28. *A. rufa*, la *variacore* of Buffon, *rufous lar* of Latham, has its tail-quills brown, the eight intermediate ones rufily-coloured at the edge, and the outermost white at the edge. The bill is brown; the body blackish above, variegated with rufous tints, and below white; the feet are yellowish; the length five and one-fourth inches. Comerfon brought this beautiful bird from Buenos Ayres, near the river de la Plata.

29. *A. Nova Zelandiae*, New Zealand lark of Latham, has white eyebrows, a black bar on each eye, its vent cinereous, and its feet reddish cinereous. It is seven and a half inches long. The bill is ash black above; the body black above, white below, the feathers edged with ash colour; the claws black, the hind one almost straight. It is found in New Zealand.

30. *A. mongolica*, mongolian lark of Latham, has the crest of the head ferruginous, bound with a white annular fillet, and in the middle a white spot. It is larger than the calandra, which it resembles; it sings sweetly on the ground, and inhabits the famine marshes that lie between the rivers. Onon and Argon.

31. *A. fibrica* has the secondaries white, the crown of the head, ears and shoulders ferruginous, and the outer tail quill externally altogether white. It inhabits the fields of Siberia, near the Irtis, skimming on the ground, in its flight and song inferior to the sky-lark, in stature larger, and similar to the calandra.

32. *A. flavus*, la *couverture de pierre* of Buffon, has the upper part of its body red and grey, varied with brown, the under part whitish, the face, throat and sides of the head yellow, the tail-quills black, edged with grey, except the outermost which are white at their margin. The yellow of the face, &c. is set off by a black spot between the eye and the bill, that joins to another larger one immediately below the eye; and the breast is ornamented with a broad black girdle. The bill and feet are leaden-grey. Its length is five and three-fourths inches. It inhabits Siberia, but is rarely found. Of all the birds denominated larks, this is the most conspicuous for beauty of plumage.

33. *A. obscura* has the under part of the body white without spots, and the posterior claw shorter than the toe. It inhabits Sardinia, and agrees with the common lark in its size and nearly in its colour, but as the hind claw, though longer than the others, is shorter than the toe. Gmelin queries whether it belongs to the genus alauda.

The *alauda* yellowgoa, or yellow lark, is black, variegated with rufous and white. It is found at the lake Yelton, beyond the Volga; is gregarious, and in the month of August is fat and delicious.

The *A. obscura* of Latham, or dufky lark of Lewin, is now described under the name of the *A. petrofa*, or rock lark, by Mr. G. Montagu. Its specific characters are, that it is olive brown, yellowish under the body, the sides of the neck and breast are spotted with brown, and the half of the outermost tail-quill is white. Mr. M. in 1791 discovered this bird to be a native of the coast of South Wales, and all the rocky situations; and it was known to the fishermen, under the name of the rock lark. Mr. Pennant is supposed to have met with this bird, as in his felloo edition of British Zoology, he has given a variety of the tit-lark (*A. pratensis*) with dufky legs, shot on the rocks on the coast of Cornwall.

This bird affects only the rocky parts of the coast; and in winter it is occasionally found in the marshes, seeking its food, which is marine infects. It begins its song early in the Spring, which very much resembles that of the *A. pratensis*; as it mounts in the air like that bird, and returns again to the ground, or to some neighbouring rock, with motionless wing. It breeds early in the Spring, a nest with five eggs having been found on the 15th of April; it was placed upon the shelf of a rock, behind a tuft of eanie
A LA

grafs, under a small bush, and was formed of dry grafts, marine plants, and dry moss externally, and lined with finer grafts and a few long hairs. The eggs were of a dirty white, sprinkled with numerous specks of brown. The length of the bird was fix and three-fourths. Mr. M. has lately observed this bird on the coast of Kent and Suffolk. TRANSACT. OF LINNEAN SOCIETY, vol. iv. p. 41—43.


A LAUNA, in Ancient Geography, a town of Britain, belonging to the Damini, situated, according to Horley, near Falkirk, upon the Roman wall, at a place called Camelon, where are still some vestiges of a Roman town; but Baxter mentions that it was where Stirling now stands. Alunna was also a town of Gaul, placed by M. d'Anville among the Unelli, north of Coffedia, and west of Crociatunum.

A LAUNIUM, a town of Gaul, placed by M. d'Anville in the mountains between Sagunero to the north-east, and Apta Julia to the south-east.

A LAUNUS, a river of Britain, which Horley supposes to be the Tweed, but Camden and Baxter think it is the river Alne, in Northumberland; and their conjecture is favoured by the affinity of the names. A LAUNUS mons, a name given by the ancient geographers to the Valday mountains of Russia.

A LAUSA, or ALOSA, in Ichthyology, a species of Clupea. See Shad.

A LAUSI, or ATUASI, in Geography, a town of South America, in the jurisdiction of Cuenca, in Terra Firma.

A LAUT, or ALT, a river of Turkey, in Europe, which rises in the mountains that separate Moldavia from Transylvania, and runs into the Danube near Nicopolis, in Bulgaria.

A LAY, denoting in the Turkish language, "the triumph," in Modern History, a ceremony which accompanies the assembling of the forces of the Turks upon the breaking out of a war. It is described by Baron Tott, in his memoirs, as a kind of masquerade, in which persons of the several trades and manufactures present to the spectators the implements and exercice of their respective occupations. The labourer draws his plough, the weaver handles his shuttle, the joiner his plane; and these persons are seated in cars, richly ornamented, and commence the procession; then follows the standard of Mahomet, which is brought out of the foragio, and carried to the army, in order to enforce victory to the Ottoman troops. An air precedes this banner, proclaiming with a loud voice; "Let no infidel dare to profane with his presence the holy standard of the prophet; and let every Mussulman who perceives an unbeliever, make it known, under pain of repudiation." From this moment, a religious fury seizes the people, and impels them to commit acts of the most shocking barbarity. No regard is paid to sex or age, and many fall victims on the occasion.

A LAYA Cape, in Geography, the easter extremity of Venezuela, or Little Venice, which extends to and from the entrance of the gulf of that name, 130 leagues.

A LAYMO, MARC ANTHONY, in Biography, a Sicilian by birth; in the year 1610, being then only 20 years of age, was made doctor in medicine. He then went to Palermo, where he was particularly celebrated for his fascinations in treating the plague, which raged in that city, in the year 1623. He died 1662, aged 72 years, and was buried in the church of St. Mary of the Agonizers. In what estimation he was held by his fellow-citizens may be judged by the following lines, part of the inscription on his monument:

"En humi firmatur, "Quia humo ipse totam Siciliam dira feviente "pelle liberavit."

He left several works, part in manuscript, the following were printed: Discurso interno alla prelevazione del morbo contagioso e mortale, che regna al presente in Palermo, &c. 1625. 4to. Consolitatio pro ulceris Syriaci nane vagantis curatione, Fanorni, 1632. 4to. Dailiceticus live de succedaneis medicamentis, 1637. 4to.; Consigli medicopoliti, &c, della pezza. 1652. 4to.

A LAZELAIA, in Geography, a river of Siberia, which runs into the Frozen Ocean. N. lat. 72° 40'. E. long. 142° 14'.

A LAZELISKO, a settlement in Siberia, on the river Alazeya, 30 leagues west-north-west of Nizmi Kovinski. N. lat. 69° 40'. E. long. 144° 14'.

A LAZIA, in Ancient Geography, a town of Asia, situated on the river Rymus, which passes through Mygdonia. Strabo, Geog. tom. ii. p. 828.

A LAZONES, a people of Asia, mentioned by Strabo, Stephanus Byz. &c. whose origin and history are unknown. They were reckoned among the Scythians, who dwelt on the borders of the Euxine sea, and Alazia was probably their capital. Apollo was the object of their worship.

A LAZONIUS, a river of Asia, which descended from Mount Caucasus, and ran into the Cyrus; but Pliny says, that this river separated the Iberians from the Albians, and was therefore more to the west. Strabo. tom. ii. p. 764.

A LB. See ASPER.

A LB, in Geography, a river of Germany, which rises three miles west-north-west of Wildbad, in the circle of Swabia, and runs into the Rhine, about five miles west-north-west of Durlach.

A LBA, a city of Italy, in the duchy of Montferrat, situated on the river Tanaro; the fee of a bishop, who is suffragan to the archbishop of Milan, and whose diocese is of considerable extent. Besides the cathedral, it has three parochial and three other churches, with several convents. It is 18 miles south-east of Turin. N. lat. 44° 40'. E. long. 7° 50'.

A LBA, in Ancient Geography, a city of Dacia, which some suppose to have been the site of the present Bie:

GORD.

A LBA, a town of Spain, in the country of the Baiti-

tani, south-east of Bari.

A LBA, now Elvas, a city of Lusitania.

A LBA, a river of Gaul, now Aube.

A LBA FERMA, or ALBAM, in Antiquity, was a yearly rent, payable to the chief lord of a hundred; so called, because it was paid in white money, or silver, and not in corn, which was called black meal.

A LBA Fanfis, now Alba, in Ancient Geography, a town of Italy, to the north-west of the river Euphrasus, in the country of the Maril. It was denominated Fanfis, in order to distinguish it from other Italian cities of the same name, and particularly from Alba Longa. The inhabitants were denominated Albones. Silvius Italicus (Tunici. lib. viii. v. 508.) refers to it:

A LBA. Interioreque per nodos "Alba sedet campos, pomnique repandit ariditas."

This town was situated in the centre of Italy, amidst mountains
mountainous pastures, and excluded from all means of escape; and it was therefore chosen for the state-prison, to which the Romans confined captive princes, after having barbarously dragged them through the streets of Rome, at the chariot-wheels of a triumphant cavalcade. Here Perdicca, king of Macedon, and his son Alexander, terminated their career, after the triumph of Philip. Syrakus, the Numidian, and Biminus, king of the Aequi, were also condemned to this gaol, by the particular clemency of the senate, which sometimes indulged its savage disposition, by putting its captives to death. The natural security of this place was augmented by artificial fortifications: the ruins of which prove, at this day, their ancient solidity. For the entertainment of the gaolers, which was required in a place of such importance, an amphitheatre was erected, the shattered remains of which are still visible, as well as the foundations of a temple, and other buildings, of Roman times. Lucius Vitellius, brother of the emperor of the same name, had a villa near this place, famous for the variety and excellence of its fruit-trees, which he brought from Syria. His gardens were the nurseries, where several of the most delicious stone-fruits, that are now so common in Europe, were first cultivated and multiplied. Against the severity of this climate, in which the adjoining lake is frequently frozen over, it was necessary to hibernate the trees transplanted from Asia, and to treat them with peculiar attention, in order to rear them to perfection. Suidas's Travels, vol. iv. p. 357.

Alba Helviorum, or Alba Longa, i.e. Alba Longa, a town of Gaul, in the provincia Noricum, was the capital of the Helvis, and situated at a small distance from the Rhone. Hence the Helvis were denominated Albenae. This town was afterwards called Vivarium, and it is now Viviers.

Alba Julia, now Weissenburg, a town of Transylvania, on the river Maurus or Marisch, supposed to be called Alba Julia, after Julia Domna, the wife of Severus, and mother of Caracalla. There are several inscriptions, however, near this place, which bear Cal. Apuli, i.e. colonia Apulensis, without the least mention of Alba Julia, though they were inscribed after the time of Caracalla. Besides, Ulpian, reciting the colonies of Dacia, calls this colony Apulensis, and another Alba nor Julia. From these circumstances it has been inferred, that Alba Julia is a corruption of Apulius. It was also called Apulum Angustianum. Ceilienius, tom. i. p. 381.

Alba Longa, a city of Italy, in Latium, south-east of Rome, founded by Alcitus, the son of Eneas, and a colony from Lavinium, at the foot of mount Albaneus, according to Blaris's Chronology, in the year 1152 before Christ, or 300 years before the foundation of Albaneus, and selected by him as the place of his residence, and the capital of his kingdom. It was called Alba, we are told, from a white snow found by Eneas, which swelled 30 pigs on that spot, and which afforded an omen, that a city would be built there within 30 years. See Varro, R. R. (l. xi. r. iv.) Aurelius Victor de orig. Rom. gentis, and Propertius, lib. iv. eleg. 1. ver. xxxv.

"Et fletit Alba potens, alba fuis omine nata."

The epithet longa, was added to distinguish it from the Alba of the Mars, or to express its length, as it was extended along the lake near which it was built. Its situation was at an equal distance between the lake and the mountain; probably between the present city of Albano and the lake of Castel Gandolfo, and peopled by a mixed colony of Latins and Trojans. The inhabitants of this city were called Albani. It was 30 years after Lavinium was built, that Alcitus fixed his abode at Alba: and there he died, after a reign of about 33 years, of which he parted at his new settlement. Upon the death of Alcitus, the Latins resolved to unite Albani and Lavinium into one sovereignty, under Sylvius; and Sylvius was succeeded by 13 kings of the same race, who, for near 400 years, reigned at Alba. Procas, one of them, bequeathed the throne to his elder son Numitor; but he was deposed of the kingdom by his brother Amulus, who, in order the more effectually to secure himself, killed the son of Numitor, and consorted his daughter, Rhea Sylvia, to the worship of Vesta. Rhea, however, was delivered of the twins, Romulus and Remus; who, after having been refused from the Tiber, into which they were thrown by order of Amulus, were suckled by Acca Laurentia, the wife of Faustulus, and educated by the Galli, under the direction and order of Faustulus. Upon a quarrel between the hereditary house of Amulus and that of Numitor, the two brothers took part with the former against the latter; and, in consequence of the fray that was thus occasioned, Remus was carried before Numitor to receive punishment. When he was questioned concerning his birth and parentage, his reply excited, in the mind of Numitor, a lively remembrance of his two grandsons, and his anger was changed into tenderness. The two brothers concurred at length in dethroning Amulus, and restoring their grandfather Numitor to the throne. They then, by the advice of Numitor, undertook to found a new colony on the lands near the Tiber, where they had been taken up, and which he granted them for this purpose. Romulus and Remus differed concerning the precise spot where the new city was to be erected; the latter declaring for the Aventine, and the former for the Palatine mount. Remus, as it is said, fell in the contest that was then occasioned, and Romulus prevailed, and laid the foundations of the new city, which was called Rome, after his name. Rome, in a little while, became the rival of Alba; and soon after the accession of Tullus Hostilius to the throne, a dispute arose between the Albani and the Romans, and preparations were made for war. In an interview that occurred between Tullus and Faustus, or, as others call him, Faustus, the Albani general Tullus, proposed to determine the dispute by a single combat between himself and Faustus, which the latter declined. It was at length agreed, that three champions should be selected out of each camp to decide the difference. The champions, on the part of Rome, were the Horatius; and on that of Alba, the Curatii. Rome ultimately gained the victory over Alba, her mother-city. When Tullus afterwards made war upon the Veientes, Faustus joined him with the Alban troops, but afterwards proved treacherous and deserted him. This treachery being known, Tullus detached Horatius, who had conquered the three Albans, with a chosen body of horse and foot, to demolish Alba, as he had previously concerted the business with the senate. Faustus was ordered to be fastened to two chariots drawn by horses; and to be torn asunder; his accomplices were put to the sword; but the rest of the Alban soldiers were carried to Rome with the citizens, and the chief men among them were even admitted into the Roman senate. Thus fell, A. U. C. 89, ante Chr. 665, the city of Alba, famous for its riches, the number of its inhabitants, and, above all, for being the mother of Rome. The temple only, says Strabo, was preserved. Dion. Hal. lib. i. p. 52. Lib. iv. p. 152—157. tom. i.EDIT. Oxon. Livy, lib. i. c. 2—c. 24—29. tom. i. p. 22—38. p. 101—134. Ed. Elzev. Plut.
Romul. is dean Geography, eminent town Baka, chureli 8 the and England, of monk Picardy, not Rome, town his that follows A. Plut. Geog. were called Albenes Pompianum. It is now called Alba, without any epithet.


A. Plut. Terra, in Albem, one of the many names that were anciently given to the philosopher's Rome.

A. Plut. Bacete, or Albaeez, in Geography, a small town of Spain, in the canton of La Sierra, in the eastern part of New Calilie, situate in a fertile vale not far from the mountains that separate La Mancha from the country called the Defor. W. long. 1° 46'. N. lat. 38° 55'.

A. Plut. Albaecen, or Albasen, a town of Germany, in the circle of Wellphalia, three miles north of Covex.

A. Plut. Alback, a town of Perilia, in the province of Alderbeizan, 55 leagues south-west of Tauris.

A. Plut. Alback, is situated on the western coast of Africa, in N. lat. about 27° 15', and about 35 leagues south-west from the river Oryluls. It has a bay to called, and a cape denominated Chabbi.

A. Plut. Albarn, (St. in Biography, the first Christian martyr in England, and usually called the martyr of Britain, was born at Verulam, of pagan parents, and flourished in the third century. In his youth, he went to Rome, with Amphibalus, a monk of Caerleon, and served seven years in the army of Dioclesian. On his return to England, he was instructed by Amphibalus in the Christian faith, became a convert, and lived in the profession of Christianity till the year 303, when the Dioclesian persecution commenced; but being cited before the Roman governor, for having afforded an asylum to his preceptor, who was a Christian, and avowing his own conversion, he was ordered immediately to be beheaded. The traditionary tales of the times report many miracles which happened on occasion of his death. Bede, and other ancient writers, relate, that in his way to execution, a stream was miraculously divided to afford a passage for him and a thousand persons who accompanied him; that the executioner was converted by the miracle; that a fountain opened at the feet of St. Alban, which afforded water in answer to his prayer for allaying his thirst; and that the eyes of the executioner dropped out of his head at the instant of his giving the fatal stroke. We learn from the same authority, that many of the spectators were converted by these miracles. But the testimony of those who report them deferves little credit; and they seem to be duly appreciated by Milton, who, in his History of England, speaking of St. Alban, says: "The story of whose martyrdom, foiled and worse martyred with the sable veil of some idle fancies, more fond of miracles than apprehensive of truth, deferves no longer digression." When the east end of the church of St. Alban's was repaired, in 1257, the labourers found some leaden chalices, containing relics; and on a plate of lead, the following inscription:—

"In hoc manuolo, inventum est venerabilis corpus Sancti Albani, protomartyris Anglorum; i. e. In this manuolo is found the venerable body of St. Alban, the protomartyr of the English." Part of the hymn formerly sung on the festival of this saint, is as follows:

"Ace protomartyr Anglorum,
Miles regis angelorum,
O Albane, flos martyrorum."
but his figures of the other sex were usually lean and without masculine beauty, except in some of his heads. In his drawings he was sometimes haughty and incorrect. His pictures of the four elements in the palace of the king of Sardina, at Turin, are of an extraordinary beauty, and well preferred; the design is excellent, the draperies perfectly elegant, the colouring lovely, and the whole very correct. His other principal works are at Rome and Bologna; but as he was extremely industrious, and the productions of his pencil were highly esteemed, his cabinet pictures are found in all considerable collections. As an engraver, he made one small folio etching of Diadocida killing herself, in which he did not succeed; and in this art he did not add to the character which his other works have established. He was fond of Italian poetry, and lamented that his early education had not enabled him to read the originals of the Latin poets. In private life he was modest, affable, unaffected, attached to his family, pious in conversation, confiding to his pupils, whose works he occasionally retouched and improved. His life and faculties were continued to old age; and he died at Bologna, in 1665, aged 82 years. Pilling- ton and Strutt. Gen. Diet.  

ALBANI, Giovanni Battista, was the brother and disciple of the former, and became an admirable painter in the style, manner, and colouring of his brother. He excelled in landscape, which he designed in an exquisite taste, toucing the trees with great spirit, and giving them a peculiar sweetness of colour. He died in 1668. Pillington.  

ALBANI, John Jerom, was born at Bergamo, of a noble family, and devoted himself to the study of the civil and canon law. By the zeal with which he profected some of his own relations in the Inquisition, he recommended himself to Cardinal Alexanderinus, the inquisitor, who, upon his being advanced to the papal see, under the name of Pius V. conferred upon Albani a cardinal's hat. He died in 1591. His works were a treatise "De immaculat Ecclesiis," published in 1553; another, "De potestate Papae et Concilii," printed at Venice, in 1561; and a third, "De Cardinalibus, &c." Nouv. Diet. Hist.  

ALBANI, in History, the inhabitants of Albania, in Asia, who are said by some writers to have derived their name from their fair complexion. Ptolemy mentions a people of this denomination on the confines of Macedonia.  

ALBANIA, in Ancient Geography, a country of Asia, was bounded on the west by Iberia, on the east by the Caspian sea, on the north by mount Caucasus, and on the south by Armenia. The cities which it contained, and mentioned by Strabo, Ptolemy, and Pliny, were Teleba, Thalbis, Gela, Thiana, Thabiskas, Alban, Chadaca, Mifs, Bociata, and Cabalica, which last Pliny calls the metropolis of Albania. Its chief rivers were Cyrus, now Kur, Albanus, Caebus, Garrus, Soana, Cambyces, and Alazon, all of which discharged themselves into the Caspian sea. The whole country, now known by the names of Schirwan and East Georgia, is extremely fertile and pleasant. Strabo (tom. ii. p. 767.) describes the inhabitants as tall, robust, and graceful in their persons, excelling those of other nations in comeliness as well as in stature, and as very simple in their manners. He adds, that they were unacquainted with weights and measures, and the use of money; that they could not count above one hundred, and that they carried on trade by exchange. They chiefly devoted themselves to pasturage, and had some resemblance of the wandering tribes; they were not altogether unacquainted with the art of war, nor unused to the practice of it; their common weapons were bows and arrows; they defended themselves with shields, and bore on their heads helmets made of the skins of wild beasts. They excelled in hunting, and were famous for the dogs which they reared for this purpose. They respected age, both in their parents and others; they thought it wrong to take any notice of the dead; they buried their money with them, and lived in poverty, as they had thus no patrimony. They worshipped, as gods, the sun, Jupiter, and the moon; and the priest was next in honour to the king. Pliny (II. N. tom. i. p. 371.) says, that they were of a white complexion, and that they could see by night as well as by day. Tacitus (lib. v.) and Pliny (tom. ii. p. 311.) trace their origin to the Thessalians, who attended Jason in his expedition to Colchis, and settled in this part of the illusmus, between the Euxine and Caspian seas. According to Justin (lib. xiii.), they were descended from the inhabitants of Alba in Italy; and Ammianus Marcellinus derives them from the Maffagates. Albania was anciently divided into several small kingdoms; and Strabo (ubi supra) says, that the country had 26 different languages, and as many kings and kingdoms as languages. But the Albanians, in process of time, overcame the other petty princes, and made themselves masters of the whole country. In the time of Pompey, as we learn from Strabo, they could bring into the field 60,000 foot and 20,000 horse. Of their kings we have no account, before the reign of Alexander the Great, to whom the king of Albania is said, by Pliny (tom. i. p. 461.), to have presented a dog of extraordinary size and beauty. The next king, mentioned in history and named Orasus, was defeated by Pompey, and obliged to retire to mount Caucasus. Another king of Albania, named Pharamenes, committed great devastations in Armenia, Cappadocia, and Media, in the time of Adrian, and was summoned by the emperor to Rome. Instead of attending, he sent a number of such great coats as were then worn, made of cloth of gold, in which the emperor, as an insult to the king, ordered 300 criminals to be clad, and in that attire to fight the wild beasts in the public theatre. Upon Adrian's death, the Albanian king attended the summons of Antoninus Pius, who received him with respect and distinguished him with presents. Two other kings are mentioned; one the contemporary of Valerian, and the other of Constantin the son of Constantin the Great. The Albanians continued to be governed by their own princes till the reign of Julian the II., who is said by Zonaras and other writers to have subdued Albania by his general Leontius. Anc. Univ. Hist. vol. ix. p. 122—126.  

ALBANIA, a city of Asia in Affryia, was situate to the east of the river Titana.  

ALBANIA, in Modern Geography, sometimes called Arnaud, a province of Turkey in Europe, comprehending the ancient Illyricum, and Epirus, situate in the Adriatic, and bounded on the north by Dalmatia and Servia, on the east by Macedonia and Thessaly, on the south by Illyria, and on the west by the Adriatic. Its length is about 80 leagues, and its breadth about 20. Its capital was formerly Albanopolis; but it is now Durazzo. The other principal towns are Scutari, Du- cigno, Anti-vari, Croya, Alaffo, Velon, Datarto, Dbro, &c. The most remarkable river is Delichi, formerly Acheron; amongst the lakes we may reckon Scutari, and to the cliffs of mountains we may refer the Acrocera- num, or mountains of Chimæa. The soil of this province is fertile, and produces excellent wine. Its manufactur is chiefly carpets. Its inhabitants are robust and courageous, and make good soldiers, especially cavalry. In the Turkish army, they are distinguished by the name of arnauds. The religion of Albania is that of the Greek church. This province was annexed to the Ottoman em-
ALEB, in Ancient Geography, a town of Pamonia. Albainum Pompeii, a name anciently given to the present Albano.

Albanum mare, a name given by Pliny to that part of the Caspian sea, which bordered on Armenia.

Albanus, Joannes, in Biography, was received Doctor in Medicine at Bologna, in the year 1616, where he taught the theory and practice of physic several years, and published a treatise on the regimen to be observed by convalescents.

Albanus, in Ancient Geography, a river of Albani, thought by M. d'Anville to be Samara.

Albanus Mons, the mountain adjoining to Alla Longa or Albano; and also a part of the Albii Mons of Strabo, which the Ancients considered as forming the extremity of the Alps, and together with the Montes Bulbi separating the further Liburnia and Dalmatia from Pannonia.

Albany, a county of America, on Hudson's river, in the state of New York, lies between Ulster and Saratoga. Its extent is 46 miles by 28. By the census in 1796, the number of electors in this county was 6537, and the number of towns 11.

Albany, the chief town of the above county, is situated on the west bank of Hudson's river, 160 miles north of the city of New York, and 340 south of Quebec. N. lat. 42° 39'. W. long. 73° 30'. This city and the suburbs, in 1797, contained 6321 inhabitants. The situation of Albany is peculiarly favorable for residence and for commerce. It is at the head of a flood navigation, on one of the noblest rivers in the world; the air is salubrious; and by the improvements of roads and canals, which are contemplated, it is expected to encrease and flourish. The public buildings in this town are a low Dutch church of ancient and curious construction, one for the Episcopalians, two for Presbyterian, one for Germans or High Dutch, and one for Methodists; an hospital, city hall, and well-built brick gaol. The corporation consists of a mayor, recorder, six aldermen and as many assistants. In the vicinity of this city there are extensive works, in which the machinery is moved by water, for the manufacture of Scotch and Rappahannock, roll and cut tobacco, chocolate, mustard, flour, hair-powder, split pease, and hulled barley.

Albany, a British fortress in New South Wales, in North America, situated on a river of the same name. N. lat. 52° 14’. W. long. 48° 59’. W. long. 50° 8’.

Albany River, a river of North America, which, after running in a north-eaft direction, and communicating with several small lakes, falls into James's bay, in N. lat. 51° 30’. W. long. 84° 30’.

Albara, in Botany. See Cana.

Albara, in Ancient Geography, a town of Syria, on the borders of Phoenicia.

Albarazin, or Albaracin, in Geography, a fortified town of Spain, in the kingdom of Aragon, on the river Guadalquivir, and near the frontiers of New Castile, is the see of a bishop, suffragan to the archbishop of Saragossa, and famous for its excellent wool, called by this name. It is 30 miles south-west of Saragossa, and 40 miles east of Madrid. N. lat. 40° 32’. E. long. 2° 16’.

Albardeola, in Ornithology, a name given by many authors to the Spoon-bill.

Albarri, in Antiquity, properly denoted those who gave the whitening to earthen vessels, &c. In which sense they stood contrasting United from dark-brow, whitened walls.

Albarum Opus, in the Ancient Building, the incrustation or covering of the roofs of houses with white plaster, made of mere lime. The workmen were called albinus, or balabrius.

This
This is otherwise called opus album. It differs from terebinum, which is a common name given to all roofing or ceiling, including even that formed of lime and sand, or even lime and marble; whereas Albarium was restrained to that made of lime alone.

ALBAS, in Geography, a town of France, in the department of Lot, three leagues west of Cahors.

ALBASANO, a town of Albania, in European Turkey, 132 leagues west of Constantinople. N. lat. 41° 32'. E. long. 26° 15'.

ALBASTRA, an ancient town of Egypt, on the Arabian coast: the inhabitants of which are called by Ephiphanus Alpharadis.

ALBATEGNI, in Biography, a celebrated astronomer of the ninth century, was a native of Batus, in Mopotiam, and hence called Al Battani, or Albattani. As Batus was one of the dependencies of Harran, he was also denominated Mohammed Ebn Jabber Ebn Senan Abu Abdallah al Harrani and Mohammad of Aracius. His astronomical observations were made about the years 882 and 883, at Antioch, and at Araca or Aracius, a town of Chaldea; and Blair, in his chronology, states the time of his death about the year 888. Dr. Halley highly commends him (Phil. Trans. for 1693, n° 204.), as a man of admirable genius, and an excellent observer, though he detects many errors in the editions of his works. He observed the autumnal equinox at Aracius on September 19th, one hour and 15 minutes after midnight, A. D. 882; and he also observed, about 883, that the first star of Aries was 18° 2' from the equinoctial point; he states the obliquity of the ecliptic at 23° 55', and the motion of the sun's apogee, since Ptolemy's time, as well as the motion of the stars, one degree in 70 years. He computed new astronomical tables, instead of those of Ptolemy, which were imperfect, and adapted them to the meridian of Aracia or Raca; and they were long used as the bell among the Arabs. He also composed a work, entitled "The Science of the Stars," comprising all parts of astronomy, according to his own observations and those of Ptolemy. This work was translated into Latin by Plato of Tibur, and published at Nuremberg in 1537, with some additions by Regiomontanus; and reprinted at Bologna in 1645, with the notes of this author. The Alphonic tables of the moon's motions were founded on the observations of Albategni. The original Arabic of this work, which was never published, is in the library of the Vatican, Blair's Chronol. N° 38. D'Herbelot Bibl. Orient. Hutton's Math. Dict. vol. i. p. 59, &c.

ALBATEL, in Geography, a Cape on the coast of Barbary, about 12 leagues north-east of Cape de Tamos, wherein are several good roads, particularly at Marsolach, to the west of Cerceili island and point.

ALBATENIUS, an Armenian physician, lived towards the end of the 11th century, contemporarily with Serapon. He translated the works of Galen into Arabic.

ALBATI equi, in Antiquity, was a denomination given to those horses in the games of the circus, which were distinguished by white cloths or furniture. In which sense, they are contradistinguished from rangi, prafini and veneti.

ALBATROSS, in Ornithology. See Dromidea.

ALBAZIN, in Geography, a town of Great Tartary, in the road from Pekin to Moscow, situated on the river Amur, and defended by a good fortres against the attacks of the Chinese and Tartar Mongols. N. lat. 54°. E. long. 104° 13'.

ALBEE, in Commerce, a small coin, current in Germany, salted at a French sol and seven deniers.

ALBEC, in Geography, a river of Switzerland, runs into the Rhine, near Furthman.

ALBECK, a town of Germany, in the district of Ulm, which is the capital of a prefecture of the same name, is situated on the river Alb, five miles north-east of Ulm, and eight miles west-south-west of Augsburg. N. lat. 48° 27'. E. long. 9° 58'.

ALBECOR, in Ichthyology, the Scionbar Thyimus of the Linnean system.

ALBEGNA, in Geography, a river of Tuscany, runs into the sea between Toscana and Orbitena.

ALBEKIRK, a town of Holland, 15 leagues south-west of Medemblick.

ALBELO, a river which rises in Mount Abol, in the country of the Girunus, and discharges itself into the Rhine near Bergum.

ALBELIDA, a town of Spain, on the river Iregua, in the country of Rioza.

ALBELIEN, in Ichthyology, called also Albula, and resembling the forma, caught in the German and other lakes, is a fish of a fine slivery white colour, and from five or six to twelve pounds in weight.

ALBELLA, in Conchology, a species of Helix, with an umbilicated smooth shell, the under part gibbous, and a semeundated aperture; found on the rocks of Europe.

ALBELUS, in Ornithology, a species of Mergus. See Smeew.

ALBEMARLE, in Geography, a town of France, which gives the title of Earl to the noble family of Keppel. See Aumale.

ALBEMARLE, a county of America, in the state of Virginia, lies between the Blue Ridge and the Tides Waters, and contains 12,585 inhabitants, in an extent of about 35 square miles.

ALBEMARLE Port, a spacious bay or harbour, on the southern coast of Falkland islands, is situated between Fox bay and Port Stephens, and may be known by a small island off the entrance.

ALBEMARLE Sound, an inlet of the sea, on the coast of North Carolina, 60 miles long, and from eight to 12 broad. It communicates with Pamlico sound, and with Currituck inlet, and receives Roanoke and Meherins rivers. The passage into it from the sea is called Roanoke inlet. N. lat. 35° 50'. W. long. 76° 10'.

ALBEN, a town of Austria, in the Inner Carniola, is environed on all sides with high mountains, large forests and deferts, and is distant two miles north-west from Cirknitz. There are mines of mercury in the vicinity of this town. From the mountain of the same name on which it is situated, called also Monte del carso, the river Allen flows, which runs into the gulf of Venice, between Laubach and Capo d'Intia.

ALBENEC, a lake of Austria, 13 miles west of Windisch-Garten.

ALBENGA, a small island on the coast of Genoa, opposite to the town of Albenga, and called also Gallinara.

ALBENGUA, or Albenga, anciently Albinium Inganum, or Allingaanum, a sea-port town of Italy, in the territory of Genoa, is the seat of a bishop, suffragan to the archbishop of Genoa. It was formerly a very considerable and well-fortified town, but has suffered by the wars, and is deserted on account of the infallibility of the air. The vicinity abounds with olive trees, and produces great quantities of hemp. It was burnt by the Pisans in 1175, but rebuilt by the Genoese. It is about 15 leagues south-west of Genoa. N. lat. 44° 42'. E. long. 8° 15'.

ALBENQUE,
ALBENQUE, a small town of France, in the district of Cahors and department of Lot, distant 64 leagues from Moutauban.

ALBEOLO, in Ornithology, the Asas albola of the Linnaean System by Gmelin, the quequedula hoediciana of Buffon, little black and white duck of Edwards, the spirit of the Arctic Zoology, and the white and black Jarcelle or raw of Buffon, is specifically distinguished by a white colour; black back and wing-quaills, bluish head, and back of the head white. Its white robe, and white band with a black cap and mantle, have given occasion for calling it religifer, or nun. The back of the head is decorated with green and purple luster, and the white band encircles it behind from the eyes. The Newfoundland fibers call it spirit, as Edwards fuggettes, because it is a very nimble diver, appearing at a great distance, very soon after it has plunged. It is found in America, from Hudson's bay to Carolina, and forms its nest in trees near fresh water.

ALBERCHE, in Geography, a river of Spain, which runs into the Tagus, near Talavera.

ALBERDORT, a town of Austria, on the river Dulekau, seven miles eal of Schrattental.

ALBERGOTTI, Francis, in Biography, an eminent civilian, of the 14th century, fluctuated under Baldi, and exerted his profession at Arezzo, in the state of Florence; but removing to Florence, he was there emmoted. His character for integrity is no less applauded than his skill in the law; so that the appendage annexed to his name is, "solidus veritas doctor, or the teacher of solid truth. He wrote "Commentaries on the Digest," and some other pieces in law; and died in 1376. Gen. Biog.

ALBERGUS, John, a native of Mazarran, in Sicily, where he practiced medicine with success, towards the end of the 17th century, published at Palermo in 1703, "Summa Tractatium Chimurgiae praecox, 12mo."

ALBERIC, or Albert, a French historian, was canon of the church of Aix in Provence, in the 12th century, and wrote a history of the first crusade, from the reports of those who attended it. His narrative extends from 1095 to 1120, and is contained in two distinct works, viz. "Chronicon Hierofyfmanum," printed in 4to., at Helmanfadt in 1584; and "Gesta Dei per Francos," in folio, 1611. Gen. Biog.

ALBERIZZI, Peter Joseph, studied medicine at Pisa, and practiced several years at Milan, where he died 1722, aged only 31 years. He published "Crotologia Medica de causis suis pestiferae, ejusdemque cura, qua vermi-culi, de quiibus fomniarunt nonnulli, expeluntur." ALBERNUO, in Commerc, a kind of cambril brought from the Levant, by way of Marselles.

ALBERONE, in Geography, a town of Naples, in the province of Capitanata, eight miles south-south-east of Volutara.

ALBERONI, Cardinal, in Biography, a celebrated statesman, was born at Placentia in Italy, in 1604, and employed till the age of 14 in the occupation of his father, who was a gardener. Having relieved M. Campitron, secretary to the duke of Vendome, when he was robbed near the village where he lived, he was recommended by him to his general, who took him into Spain. From this menial low state he rose by several gradations to the dignity of cardinal and archbishop of Valencia, and to the office of prime minister, in the court of Spain. For both these honours he was indebted to the patronage of the princes of Parma, whose marriage with Philip V. he had projected and accomplished. His disposition was intriguing and enterprising; and not content with effecting some domestic reforms and arrange-

ments, he formed the design of an expedition against Sar- 
dum and Sicily, and in order to prevent the interference of other powers, he made an alliance with Czar Peter, Charles XII. of Sweden, and, as some say, with the Ottoman Porte. He also proposed exciting the Turks to make war on the emperor, to advance the Pretender to the throne of England by means of Peter and Charles, to dethrone the duke of Or-
leans of the regency of France, and to annihilate the German power in Italy. But an union between England and France was the result of the discovery of this plan, and both these powers concurred in declaring war against Spain in 1719, and the condition of peace was the removal of Alberone, and his banishment from the kingdom. Having received an order in Dec. 1725, to quit Madrid in 24 hours, and to leave Spain in a fortnight, he retired with great wealth; nor was it discovered before he had been two days on his journey, that he had taken with him the tretament of Charles II. of Spain, which appointed Philip universal heir of the monarchy. The intrinm was wrested from his possession by force; and purifying his journey to Genoa, he was there arrested by order of the pope, on the charge of negotiating with the Turks. On his exsolation, and sub-
sequent liberation from the convent of the Jesuits, to which he was confined for a year, he engaged in new intrigues, and particularly in an unsuccessful enterprise against the small republic of St. Marino. A bon mot of Benedict XIV. on this occasion was very generally circulated: "Alberoni is like a gluton, who, after having eaten a large salmon, cannot help casting a withifh eye at a minnow." His views were more laudably directed to the establishment and endowment of a seminary of education for poor scholars in his native city. Alberoni preferred his health and vivacity to old age; his conversation chiefly turned on the recital of his own exploits, and was instructive and amusing; though in his temper he was irascible and impatient of contradiction. He died in 1752, at the advanced age of 87, and left behind him the character of "a great politician, as daring as Richelieu, and as supple as Mazarran, with as little principle as either. His life, to the year 1719, has been published by John Rouletet, translated from the Spanish. A pretended "Political Testament," in the name of cardinal Alberoni, printed in 1753, is considered as spurious. Nouv. Dict. Hist. Gen. Biog.

ALBERT I., duke of Austria, and emperor, was the son of the emperor Rodolphus, and a competitor for the Imperial crown with Adolphus of Nassau, whom he defeated and killed in battle. Before this victory, he had been elected king of the Romans; but apprehending that his election would be contested, he obtained the confirmation of it, and was solemnly crowned at Aix-la-Chapelle, in the year 1298. He began his reign with renewing the ancient leagues between the emperor, and with forming a treaty of marriage between his son Rodolphus and Blanche, the daugh-
ter of Philip the French king. The alliance with France was protected against by the three ecclesiastical electors, and upon the emperor's appeal to pope Boniface, with a demand that he would ratify his election, the pope declared that it was null and void, and that Albert ought to be treated as a murderer. Boniface proceeded, upon the complaint and remonstrance of the electors, to prohibit the subjedts of the empire from acknowledging the claims of Albert, and to release them from the obligation of their oath of allegiance. The emperor, incensed at the conduct of the ecclesiastical electors, declared war against them, and soon compelled them to sue for peace. In 1303, the pope having quar-reled with Philip the Fair of France, made advances to Albert,
Albert, confirmed his election, invited him to Rome to receive the imperial crown, and exhorted him to declare war against Philip, whom he had excommunicated. The conditions, however, were humiliating; but the emperor acquiesced, and agreed to take the oath of allegiance to the pope, after acknowledging that kings and emperors received the power of the temporal sword from the holy see, and confining to perform all the promises made by Rodolphus and his predecessors, and to defend the rights of the holy see against all its enemies. Before this reconciliation between the pope and the emperor took place, Albert had engaged in an unsuccessful war with John d'Avennes, next heir to John count of Holland, who had lately died, under a claim of his dominions, as heirs reverible to the empire. The war terminated with a stipulated condition that John d'Avennes should enjoy the countries of Holland, Wiel Frieland, and Zealand, in consideration of doing homage to the emperor, from whom he accordingly received the investiture of these dominions. Albert, likewise, in 1303, invaded Bohemia, but was obliged to retreat with loss. But upon the death of Wincentius the younger, who was affiliated by his subjects, and who died without issue, the emperor seized Bohemia, and placed his son Rodolphus on the throne; but Rodolphus dying suddenly, Albert could not secure the crown for his next son, Frederic. His next object was to support Philip of Nafan, brother of Rodolphus, the late emperor, in an iniquitous attempt to recover Bungaria and Thuringia from the rightful possessors; but this exploit terminated in a disgraceful defeat. In another instance he was no less mortified, but the event proved singularly important. The three cantons of Uri, Schwyz, and Underwald, though they do not seem to have been in any respect dependent upon the house of Austria, had voluntarily fought the protection of Rodolphus; and he treated them with great indulgence, and defended their rights and privileges, without ever considering them as foes of the house of Austria. But the conduct of his son Albert was directly the reverse: he wished to govern them as an absolute sovereign, and had formed a scheme for converting Switzerland into a principality for one of his sons. By his own influence and oppression, and by the similar conduct of the government who appointed them, they were so aggrieved and incensed, that the three cantons above-mentioned formed a confederacy for the purpose of emancipating themselves from the Austrian yoke. They succeeded in their efforts, and retrieved that liberty which they have since enjoyed. The other cantons soon engaged in the confederacy, and thus was laid the foundation of the Helvetian republic. Albert was uniformly influenced by a spirit of rapacity and an unwarrantable delirium of aggrandizing his own family; and he at length fell a sacrifice to his ambition and avarice. Having refused to put his nephew John, duke of Swabia, in possession of his paternal estates, which, it is thought, he designed for one of his own sons, the nephew formed a conspiracy against him. With this view, he engaged three confederates, who contrived to meet Albert on his progress from Bafl to Rhenpfeld, after he had crossed the river Rhine, near Schaffhausen; and John, having flabbed him in the throat, his accomplices completed the murder in the sight of his son and their attendants, who were incapable of affording him any succour. In the place where the emperor was slain, A.D. 1308, a cloister was built, and called Koningsfeld, from whence his body, after having been deposited there for some time, was carried to Spire, and kept among his predecessors. His character has been differently appreciated by different writers. Some represent him as a prince of a brutal disposition and manners, and of the most lordly avair; whilst others describe him as a prince of singular courage and address, and distinguished by an excellent understanding, and an inviolable attachment to truth. All agree, however, in charging him with an insatiable degree of avarice. It is said, that he was equally abhorred by flattery and slander; and that there were three sorts of persons for whom he had a particular regard, viz., women of honour, men of courage, and priest ecclesiastics. He was called "the Triumphant" in account of his generosity and valour, and the many victories he obtained over his enemies; and the "one-eyed," because he had lost one eye by the operation of poison, which was given to him at his own palace in Vienna, above three years before he was elected emperor. Albert, by his wife Elizabeth, daughter of the duke of Carinthia and Gorcia, had six sons and five daughters. By his youngest son Albert, surnamed the "Counterfeit," the male line of the family is derived. Mod. Un. Hist. vol. xxvi. p. 156, 142.

**ALB**

Albert II., duke of Austria, and emperor, surnamed the "Grave" and "Magnanimous," was the son of Albert of Austria, called the "Wonder of the World," and married Elizabeth, daughter of the emperor Sigismund. By his wife conduct he established the security of his Austrian subjects, which had been for a long time interrupted by intestine wars and rapine; and if his life had been prolonged, he would probably have been the greatest prince that ever sat upon the imperial throne. In one year, he was honoured with three crowns. To the Hungarian throne he was advanced in consequence of the will of Sigismund, whose daughter and heiress he had married; and he was elected king of Bohemia, in consequence of a convention between the two families, which stipulated, that when the lawful heir male of the house of Bohemia should be out of age, the crown should devolve upon a prince of the house of Austria. The throne, however, was disputed by Caimimir; but after a successful struggle secured by Albert, who was crowned at Prague. During his conflict with Caimimir, he was elected emperor at Frankfort. After his election and coronation at Aix-la-chapelle, it was his chief care to reform the administration of justice, and to abolish the tribunals, called the secret or Weltphalia judgment, which condemned without trial, or even public accusation. He also confirmed the neutrality which had been adopted by the German electors and princes, with respect to pope Innocent and the council of Bafil, and by the mediation of the pope and council he concluded a peace between Hungary and Poland. When Bulgaria was invaded by Amurath, the Turfkih Sultan, Albert took arms in its defence, and marched to Buda; but being there seized with a violent dysentery, he was under a necessity of returning to Vienna; and in his way thither the disordered proved fatal, A.D. 1439; and he was interred at Weissenburg. He left a posthumous son and two daughters. In one of the diets which were held at Nuremberg during the short reign of this prince, Germany was divided into four circles, viz., Bavaria and Franconia, the countries about the Rhine together with Almenia, Westphalia, and the Low Countries, and Saxony. In another diet, it was proposed to divide the empire into six circles, and this division was established by the emperor Maximilian I. Albert was of tall stature and great strength, liberal and just in his disposition, and of a virtuous character; he cherished a warm affection for his people, a great zeal for religion, and an uncommon esteem for learned men. Mod. Un. Hist. vol. xxvi. p. 273-278.

**ALB**

Albert the Great, so called on account of his great erudition, in Biography, was born at Lawingen in Swabia, about the year 1193, or, as some say, 1205. He was
was educated at Paris, and in 1256 he was made doctor of medicine at Paris; where having learned of the Dominicans, he was induced to take the habit; and on the death of Jordanus, who was made vicar-general, then provincial of that order, he taught philosophy, medicine and theology at Cologne, and at Paris, to numerous auditors. At Cologne St. Thomas Aquinas was his pupil. In 1260, he was made bishop of Ratibus; but at the end of three years he resigned that dignity, and retired to Cologne. From hence he went to Germany and Bohemia, to preach the crocuses; and in 1274, he attended the council of Lyons. Allowing for this occasional absence, he continued to instruct the religious of his order in this city, till the 15th of November 1289, the time of his death. His works, which were very voluminous, were collected by Father Janani, a Dominican of Grenoble, and published at Lyons in 1515, in 21 volumes in folio; but many of them are supposed to be spurious. The treatise "De secretis Mathematicis, item de virtutibus herbarum, lapidum et animantium," published under his name, was written by Henry of Saxon, one of his pupils. He was undoubtedly the author of several works on the mathematical sciences; as arithmetic, geometry, perspective or optics, music, astronomy and astrology; under the titles.—"De Sphaera, de Altiris, de Astrarum, item speculums Aftrometricum." As he was a man of genius and knowledge superior to his contemporaries, and particularly devoted to mathematical disquisitions, he was charged, according to the can of the times, with being a magician. He is said to have contrived a kind of androides, or machine in the human form, which he had brought to such perfection, that it could speak: and of this machine many tales are related, but they are not worth recording. It is not at all incredible, that by his knowledge of mechanics and acoustics, he might have contructed a machine, which, by means of the air and certain springs, produced sounds, resembling those of the human voice; and that he might apply his knowledge in chemistry to the production of artificial flowers and fruits. Some hare, without foundation, ascribed to Albert the invention of fire-arms. The chief object of his investigation, was probably the philosopher's stone, as this was the "ignis fatuus" of the age. Gen. Dict. Hutton's Dict. Dupin cont. xiii. Brucker's Hill. Philos. by Lohschl. vol. ii. p. 371-372.

Albert of Aix, or Albertus Aquensis, was a canon of Aix-la-Chapelle, in the 12th century, who travelled into the Holy Land, and wrote in Latin, "A History of the Expedition to Jerusalem, under Godfrey of Boulogne, and other Leaders." This history comprehends a period of 24 years, terminating in 1126, and is esteemed accurate. It was printed by Reinaecius, in 1584. Cave. H. L. tom. ii. p. 226.

Albert, Erasmus, a German divine of the 16th century, was born at Frankfurt; from a book entitled, "The Harmony between Jesus Christ and St. Francis," and highly valued by the Franciscans, he collected many absurdities in a book which he entitled—"The Alcoran of the Cordeliers." To this book Luther, of whom Albert was a disciple, prefixed a preface, and it has passed through a great number of editions. The author wrote other works in Latin and German, and died in 1551.

Albert, Krantz, an historical writer, was professor of divinity at Hamburg, in the beginning of the 16th century. His works are—"Metropolis?" or, "A History of the Churches established or restored in the reign of Charlemagne."—"A History of Saxony?"—"A History of the Vandals;" and "A Chronicle of the Affairs of the

North, from the time of Charlemagne to the year 1564." He died in 1517. He is said to have collected facts with diligence, and to have related them with wit, liberty and freedom. Voss, de Hist. Lat. Cave, H. L. tom. ii. p. 243.

Albert of Steinfeld, a Benedictine monk, flourished about the middle of the 13th century. He wrote "A Chronicle," comprehending the whole period, from the beginning of the world to the year 1256, which was published with notes, by Reinaecius, in 1587. Cave.

Albert of Stichbury, or Albertus Aquensis, flourished in the 14th century, and published in Latin, "A History or Chronicle of Affairs from the Reign of Rodolphus I. in 1270 to the Death of Charles IV., in 1358." This work, which is faithfully written, was edited by Urtifius, in a collection of authors, who wrote on the affairs of Germany. Voelfl. Cave.

Albert, Solomon, a pupil of Fabricius ab Aquapendente, a learned and ingenious anatomist, studied medicine at Wittenberg, where he was several years professor. He is said to have discovered the valve of the colon, sift in a caffer, afterwards more distinctly in the body of a man, and to have made many other improvements in anatomy. Haller Biblio. Anatomic. vol. i. p. 251. His works are—"Iliridia, &c. humani corporis partium in usum Pyronum edita, figura illustrata, Witte-}

nberg, 1584, 8vo." The plates, with the exception of two, are from Vefalus. This work has passed through several editions. "Tres orationes, quorum tertia aigit de disciplina anatomica, quo oris caperit, &c. tum de Galeni libro qui de diffusis inferibilir. Annexum eff thema de hachymaram utilitate in levando animi affec-}

tus." Norimberge 1585, 8vo. This Discourse on the Efficiency of Tears, in allaying the Affections of the Mind, is inserted in Hiller's collection of dissertations. "Oratio de furitate et mutitate; Norim. 1591, 8vo." "Orationes quatuor, de felle rectagrande, de fidore cento, &c. ibid." 1592, &c. He died March 29th, 1600. His age is not known.

Albert, in Geography, a town of France, in the department of Somme, and district of Peronne, five leagues north-east of Amiens, and four north-west of Peronne.

Alberti Borghegiario, Cherubino, in Biography, an eminent painter and engraver, was born at Borgio S. Sepulchro in 1522, and died in 1615. The rudiments of historical painting he acquired from his father, Michael Alberti; and in this art he made very considerable progress. His best works are in Perugia at Rome; and there are also paintings in oil, which are admired for their judicious disposition, lively and beautiful colouring; and fine expression. His superior merit, as an engraver, is also acknowledged; and in this respect his skill of execution seems to have been founded on the prints of C. Cort and Aggolino Caracci, which in his etchings and other lighter plates, he was indebted to the works of Francesco Vecellio, whose freedom in handling the graver is justly admired. He worked entirely, like these artists, with the graver, and seems never to have called in the assistance of the point. His engravings are never highly finished, or powerful in effect. The great fault of his time was the little attention paid to the chiaro-foire. The lights are scattered and left unadorned, as well upon the distances, as upon the principal figures of the fore ground, which destroys the harmony, and prevents the proper gradation of the objects. The drawing of the naked parts of the figure, in the works of this artist, is rarely incorrect; the extremities are well marked; and the characters of the heads generally very expressive; but his draperies are apt to be rather stiff and hard. His prints
prints may be considered as very extraordinary efforts of a great genius; whilst the art was at a considerable distance from perfection. The number of plates engraved by Alberti, amounts to nearly 180; of which 75 are from his own compositions, and the rest from Michael Angelo, Buonarroti, Raphael, Polidoro, Andrea del Sarto, &c. Of these we shall enumerate the following, viz.—A large nativity; a dead Christ, supported by an angel; St. Jerom feated in a landscape, meditating upon the cross; the resurrection of our Saviour; a holy family; creation of Adam and Eve, their expulsion from paradise, their subjection to labour; and the miracle of St. Philip Benizzo, where the men, who despised the exhortations of the saint, are struck dead with lightning, which is esteemed one of the most excellent prints of this master. Pilkington and Strutt.

Alberti, Domenico, a Venetian diletante, gifted with genius and an exquisite taste. He was of the corps diplomatique, and secretary to the Venetian ambassador at Madrid. At a time when there was little melody in harpichord lefions, he brought about a revolution in the study of playing that instrument, by giving a singing treble to a rapid base, composed of chords broken into groups of semiquavers, which it was so easy to imitate, that composers and players soon grew tired and ashamed of it. Jerig at Paris, and Vento in London, gladdened the public with whole volumes of lefions upon Alberti's base, but none ever composed such elegant treble parts for keyed instruments; the melody of which still lasts its ground, through all the vicissitudes of 60 years—a prodigious longevity for a musical production in point of taste! There is a little history, belonging to the publication of Alberti's lefions in England, worth recording, as a beacon to plagiarists. The first time these lefions were heard in London, was at Hickford's room, when they were admirably performed by Jozzi, the second figure at the Opera, at his own benefit; who, not only puffed them off for his own compositions, but printed them, and had the courage to affix his name to the title-page, and the confidence to sell them for a guinea a book, equal at least to two guineas now. Unluckily for the author of this fraud, but not before many copies were sold, a gentleman, just returned from Venice, being possessed of a MS. copy of these sonatas in Alberti's own hand-writing, made Walsh, the music-feller, a present of the book, on purpose to expose the transgression. Walsh having obtained the MS. upon such easy terms, fold the eight charming sonatas for six shillings a hook. The style being new, and so much more within the power of gentlemens and ladies to execute, than the rich and complicated pieces of Handel, and wild and original legedermain of Scarlatti, had a prodigious sale, and soon obliged Jozzi to make a precipitate retreat to Holland, where he practiced the same trick, but not with equal profit.

Alberti, Durante, flourished in 1590, and died at Rome in 1613, at the age of 75. He, and his two brothers, Cofmio and Giorio, who were painters and engravers, were natives of Borgo S. Sepulcro. The two first engraved upon copper and wood; the last upon copper only, and died young in 1597. They are not supposed to have been artists of any great note. The son of this artist, viz. Pietro Francesco Alberti, was born in 1584, and died in 1638. He was an historical painter, and we have a print, called the “Academia de Pitori,” and containing many figures slightly etched, but with spirit and in a style that indicates much of the matter.

Alberti, Giovanni, a painter of perspective and history, brother of Cherubino, was born at Florence in 1558, and died in 1601. After receiving early instruction from his father, he went to Rome, where he studied geometry, and the works of Buonarroti and other great masters. His principal attention was devoted to perspective, in which he arrived at great eminence. He was distinguished by the elegance of his composition, the firmness and delicacy of his pencil, the grandeur of his thoughts, the judicious distribution of the parts, and the spirit visible through the whole. Pilkington.

Alberti, John, a learned German lawyer, was born at Widmannstadt, and flourished in the 16th century. He was well acquainted with the oriental languages, and wrote "An Abridgment of the Koran," with notes, published at Nuremberg in 1543. In 1556, he published in 4to., at Vienna, at the expense of the emperor Ferdinand I. a New Testament in the Syrian character and language, for the use of the Jacobite sect, in which book are omitted the second epistle of Peter, the second and third of John, the epistle of Jude, and the Revelation. Alberti also wrote a Syrian grammar, with a preface, tracing the progress of the oriental languages among the Latins. Nouv Dict. Hist. Gen. Biog.


Alberti, Leon-Baptista, an eminent architect of Italy, was born of a noble family at Florence in 1490, and pursued his studies at the University of Bologna with such success, that at the age of 20 he composed a Latin comedy, intitled "Philodoxeaos," under the name of Lepidus, which Aldus Manutius conceived to be antique. Here he took the degree of doctor of laws, and was ordained priest. However he chiefly devoted himself to the study of design, and to the examination of ancient edifices; and at Rome he was employed by pope Nicholas V. in several works of architecture. He also planned several considerable buildings at Mantua, Rimini, and Florence. Alberti was a painter, and a good mechanic; and invented an instrument for the practice of perspective; but he is principally known as a writer. His Latin work "On the Art of Architecture," in 10 books, was printed in 1481, much esteemed, and translated by Bartoli, into Italian, in 1546, and afterwards into French. He also wrote, in Latin, a work upon sculpture and painting, in three books, which was translated by Domenichi. He lived to an advanced age, and died at Rome in 1480, as some say, but according to Tiraboschi, in 1472. His funeral oration was pronounced by Angelo Poliziano, and he was celebrated by the contemporary Italian poets. Gen. Biog.

Alberti, Michel, professor of medicine at Hall, in Saxony, and member of the Royal Academy at Berlin, a renowned defender of the principles of Stahl, against the mechanical physicians, particularly against Heister, was born at Fribourg, November 13th, 1682; he published "Epistolae qua Thermarum et Acidilarum idolum medicum defuntur," Hale 1714, 4to. "Introductio in Universum Medicinam," ibid. 1718, 1719, 1720, 3 vols. 4to., containing a multitude of theses on different parts of medicine. For the titles of these, see Heister's Bibliotheca Medicinae Practice, vol. iv. p. 386, &c. "Syntagma jurisprudentiae medicarum Schneeburg," 4to. 1725. Heiller give a particular account of this work, which he highly commends. See as above; also for accounts of the remaining works of the author, who died at Hall, May 17th, 1757.
ALBERTI, Francis, a Calabrian, resigned a rich abbey in order to become a Jesuit. He died in 1619. In his "Systema Theologicum," he attempts to reconcile divinity with philosophy; and in a treatise "De Angeli Custode," he endeavors to prove that brutes have their guardian angels. Eng. Dict.

ALBERTIUS, Mussatian, an historian and poet of Italy, was born at Padua, and flourished in the 11th century. He wrote concerning the reign of the emperor Henry VII., 12 books on the affairs of Italy after Henry VII., and a third part of the history of Lewis of Bavaria; and he has been esteemed a judicious, faithful, and for the time in which he lived, an elegant historian. He also wrote a tragedy on the tyrannies of Accauci, which, with other poetical productions, gained him distinguished laurels in the University of Padua. Petrarch mentions him with respect, as a diligent and accurate inquirer into facts. He died in 828, Vossius, Gen. Blag.

ALBERTISTS, a sect of Scholastics, were thus denounced from their leader Albertus Magnus.

ALBERTO, Baxos 82, in Geography, a shelter of rocks before the city of St. Salvador, in the bay of All Saints, on the coast of Brazil. On one of them is a strong fort which commands the road, and between them and the city is a very good harbour, where ships may ride with safety.

ALBERTON, or PORT ALBERT, a sea-port town of Africa, in the kingdom of Barea, on the confines of Tripoli, 55 leagues from Alexandria.

ALBERTUS, in Commerce, a gold coin, worth about 13 French livres, which was struck during the reign of Albertus, Archdeak of Austria.

ALBESIA, in Asia, a kind of shield used by the ancient Albeans, a nation of the Marsi.

ALBESTROFF, in Geography, a town of France, in the department of the Meurte, three leagues north-north-east of Duren.

ALBERTSS point, a rocky prominence on the coast of New Holland. S. lat. 38° 45'. W. long. 184° 42'.

ALBI, a town of Italy, in the province of Aixen. Ulter. See also AIN Ceaux.

ALBI is also a town of Savoy in the Genevois, nine miles north-north-east of Aix.

ALBI, or ALBY, Albige or Civitas Albigensium, a city of France, in the department of the Tarn, and situate on the river Tarn, was, before the revolution, the capital of a small country called the Albigeois, in Upper Languedoc. It has been the residence of a royal tribunal, and since 1677 the fee of an archbishop. Its cathedral is dedicated to St. Cecilia, and has one of the finest choir in the kingdom. The archbishop was metropolitan of five bishops, and they reckoned 30 cardinals, who had been bishops of this see. The diocese contained about 327 parishes, and produced about 35,000 livres. It stands upon an eminence, and the number of inhabitants has been estimated at 10,000. In the cathedral was a valuable silver shrine, of the Moaica kind, and of exquisite workmanship, which contained the relics of St. Clair, said to have been the first bishop of this city. There is a pleasant walk, called La Lice, a little above the city; and the archiepiscopal palace is very magnificent, and the small town of Châteauveaux serves as a suburb. The river Tarn washes the walls of the city, and serves both for an ornament and a defence. It is 15 miles north-east of Toulouse, and 270 miles south of Paris. The territory of the Albigeois, is about 10 leagues long and seven wide, is well peopled, and produces abundance of grapes, corn, wood, faltron, and sheep. It has also coal-mines. The trade of this district consists of dried prunes, grapes, wine, and a coarse kind of cloth. N. lat. 43° 55' 44". E. long. 2° 8' 45'

ALBII, in Ecclesiastical History. See White Bohemian.

ALBIAN, in Geography, a town on the Ixvory coast of Africa, in five miles south of Hinn.

ALBIAECA Cape, lies on the north-west point of the island of Cyprus, near the eastern extremity of the Mediterranean. N. lat. 35° 20'. E. long. 32° 18'.

ALBIAS, a small town of France, in the district of Quevri, divided into two parts by the river Ayeron.

ALBICELIA, in Audiology, a species of Falco, in the Linnean system, the aquila albigella of Briffon, the peregrin albigella, a bird of Prevalent, with bold reddish feathers, and slender pointed beak of a yellowish brown colour.

ALBICELIA, in Genealogy, a species of the Nerita, with a flared shell, subflexated lips, the interior tuberculated. It is found at the Cape of Good Hope and in the Indian sea.

ALBICUS, in Biography, an archbishop of Prague, was raised to that dignity by Sigismund, king of Bohemia, and distinguished by the liberality of his sentiments. His character has been reproached by the papists on account of the indulgence which he exercised towards John Halius, and the other croupers of Dizifill. He composed three medical treatises, viz. "Praxis Medicin," Regimen Sanitatis," and "Regimen Pellicinian," printed at Leipsie, in 1484, 8vo., long after his death.

ALBIGAUNUM, or Albium Inaugum, in Ancient Geography. See Albigauna.

ALBIGENSES, in Ecclesiastical History, a sect or party of reformers, who appeared about Toulouse and the Albigeois, in Languedoc, in the 12th century; and who derived their name, not from Albi's being the place of their birth, or residence, or the seat of their principal assembly, but from their having been condemned in a council held in that town, in the year 1176. Their origin may be traced to the Paulicians, who, with a view of propagating their opinions, or of escaping opprobrium and persecution, retired from Bulgaria and Thrace, and formed settlements in other countries. Their first migration was into Italy, thence, in process of time, they sent colonies into almost all the other parts of Europe, and gradually formed a considerable number of religious assemblies of persons who adhered to their sect, who were severely persecuted by the Roman pontiffs. About the middle of the 11th century many of the Paulicians settled in Lombardy, Infideln, and principally at Milan; and from hence they migrated to France, Germany, and other countries, where by their piety and zeal they captivated the admiration and esteem of the multitude. In Italy they
they were called Albigeniæ, and Cathari or Cazzari; in France they obtained the appellation of Albigeniæ, from the circumstance already mentioned; and they were also denounced Bulgarians, because they originally came from Bulgaria; Publicans probably by exception from Publicans, Jews, Heretics, or Good Men; Petrus Brunius from Peter Bruns, who is said by some to have first brought them into Languedoc; Arnaldus, Albigensius, Hierarchus, from the names of Arnold de Bere, Peter Abelard, and Henry, who adopted their opinions. They were also called Paffingers, Albi, and Albigeniæ; but some consider the latter as distinct from the Albigeniæ, though they avowed similar sentiments, and trace their origin to the 8th century. As the Albigeniæ were distinguished by their opposition to the discipline and ceremonies of the church of Rome, the Popish writers have comprehended all the adversities of this church under the same appellation. Accordingly they have confounded them with the Waldenses, or vomitor, who sprang up at a later period, and differed from them in some of their opinions. But the bishop of Meaux, contends, that they were different sects; and he adds, that the Albigeniæ were heresies and manieches; and that the Waldenses were merely schismatics, who were found to be articles of faith, and separated from the church of Rome on account of forms and discipline. But they were unquestionably agreed in their opposition to the papal hierarchy, and in affirming the utterance, tyranny, and idolatry of the Roman church, and in representing the pope as Antichrist. The learned Linboch has taken pains to investigate and ascertain the difference between these two sects; and he states, in detail, the several opinions and practices in which they both agreed and differed. They concurred in maintaining the unholiness andfulness of every kind of oath, and the inutility of confession to the priest, and the inefficacy of absolution, and in representing the church of Rome as antichristian. The opinions in which they disagreed were those of the manichees, which he inclines to think were adopted by many of the Albigeniæ, but which are not justly chargeable against the Waldenses. The former are said, upon the authority of the book of the Sentences of the Inquisition at Toulouse, to which this writer refers, to have believed, that there were two Gods and Lords, the one good, the other evil; that all things visible and corporeal were created not by God, our Heavenly Father, and the Lord Jesus Christ, but by the devil, the evil god, who is the god of this world, and the maker and prince of it. They also maintained, that the sacraments of the church of Rome are vain and unprofitable; viz. the eucharist, baptism, confirmation, orders and extreme unction. In the eucharist they believed, that there was not the body of Christ, and nothing but mere bread; the baptism of water they condemned as unnecafsary, and particularly that of children; extreme unction was, in their judgment, of no avail; and as to the orders of the church of Rome, they reproached and condemned its whole constitution; marriage was lawful, and not appointed by the good God; they also denied the incarnation of Christ; and maintained, that he did not take a real human body, nor rise again with it, but merely with the likeness of it; and that it was impossible for God to be incarnate; they also charged with denying the resurrection of bodies, alleging that though the souls of men shall come to judgment, they shall not then appear in their bodies; they objected to the adoration of the cros, the sign of which they represented as a defileable emblem of the devil; and they believed, that the souls of men were spirits banished from heaven because of their sins. The Albigeniæ differed also from the Waldenses in their rites and customs, as well as in their doctrines.

Of the former, it is said, there were two sects, some professing their faith, and conforming to the customs of their sect, and were called perfessi or confessi, perfect or confirmed. Others only entered into a covenant with these perfect persons, which they call La Conformare, the agreement that at the end of life they would be received into their sect; for this reception they were prepared by certain abstinence or falls; and the admissio, called spiritual baptism, was believed to save the soul of the person admitted, and was delayed to the last sickbed, when there were no hopes of recovery. Those who were thus received were commanded to make use of the eucharist, i.e. fasting themselves to death, and even to hasten their death by opening a vein and bleeding. Of the manichism of the Albigeniæ and other opinions and practices, which have been charged upon them by inquisitors and popish writers, they have been excused by protestant authors; and the charges have been ascribed to that malignant zeal, which has induced persecutors to vindicate their own conduct, and to fix reproach on those who have been deemed heretics. The errors and crimes of individuals have been, not infrequently, charged upon whole bodies of men; and we have reason to think, that this has been very much the case in the present instance. However this be, the Albigeniæ became so formidable, both by their number and zeal, that a holy league, or crusade, was agreed upon among the Catholic; and pope Innocent III. exhorted all princes to oppress them as much as possible, and to expel them from their dominions. Raymond, earl of Toulouse, afforded them temporary protection and favour; upon which the pope ordered him to be excommunicated as a favourite of heretics. He also sent his legate, with letters to many of the prelates, commanding them to make inquisition against the Albigeniæ, and to destroy them. He also engaged Philip, king of France, to co-operate in this work of persecution. The pope's legate was accompanied by 12 abbots of the Cistercian order, preaching the crois against the Albigeniæ, and promising, by the authority of Innocent, a plenary remission of all sins to all who took upon them the crusade. To these Dominick joined himself, and in that expedition invented the inquisition; and he decreed those who were denounced cross-bearers to unite their efforts for suppressing these heretics. When these deputies of Dominick and the pope were suspected of being lea zealous than they wished them to be, a plenary indulgence was protracted in order to engage a greater number of adherents in this warfare of intolerance and blood. The cross-bearers on this occasion wore the cros on their breast, as those who took it up against the Saracens bore it on their backs or shoulders. Raymond, who was still forbearing and indulgent, was excomunicated by a bull of Innocent, his subjects were abjured from their oath of allegiance, and power was given to any catholic, not only to set against his person, but to take possession of his country. The Earl was at last overcome, promised obedience, and sought reconciliation with the church. After the reconciliation of the earl, the cross-bearers were boldly employed in attacking the heretics, seizing their cities, filling all places with slaughter and blood, and burning many whom they had taken captives. In the year 1209 Biterre was taken, the inhabitants without distinction put to the sword, and the city burned. Carefsone was also destroyed; and Simon, earl of Montfort, made governor of the whole country, for the purpose of extirpating heretics, which he faithfully fulfilled. In the next year a new expedition of the cross-bearers was undertaken against the Albigeniæ. They feized Albi, and other towns, and either hanged or burnt those heretics, whom they captured. The earl of Toulouse was alarmed by the delusive
progress of Simon Montfort, and fearing for himself, and for his country, raised a large army, and received succour from the kings of England and Aragon, to whom he was related. Having been deprived of his dominions by Montfort, he appealed, for redress, to the council of Lateran in 1215, but without avail. The feud becoming less, he went excluded, he went to Spain, and his son Raymond to Provence, in order to collect auxiliary forces; and with these he recovered part of his dominions, and the title of Toullouc itself. Montfort was killed at the siege in his endeavour to retake it. The Earl died in 1221, and was succeeded by his son, who was unable to procure Christian burial for his father. When Raymond had recovered his father's dominions, the Inquisition was banished from the country of Toullouc; but pope Honorius III. used every effort to render him obnoxious, and earnestly urged King Louis of France to take up arms against the Albigenses. The French king undertook the expedition against Raymond and the heretics, and laid siege to Aivignon; where he and many of his army died of a dysentery and other diseases. Aivignon was at length taken by treachery, and Toullouc was compelled to surrender. Raymond obtained peace upon very humiliating conditions; being required to alijure his heresy, and to be for ever subject to the See of Rome, to expel all heretics, and to no cafe to defend them; to pay a fine of 2000 marks, and to surrender a considerable part of his dominions to the king and the church. He was then led to the high altar, in a linen garment and with naked feet, and absolved from the sentence of excommunication. Oppressed afterwards by a series of misfortunes, he bowed his neck to the papal yoke, and signified to the pope his desire that herey might be wholly extirpated from his dominions. Soon after this act of servile humiliation, viz. in 1249, he died, and was the last earl of Toullouc of that line. In consequence of these events, the Albigenses were suppressed, and they were little known or heard of till the time of the Reformation, when those who remained fell in with the Vaudois, and conformed to the doctrine of Zuinglius, and the discipline of Geneva. Limborch's Hist. of the Inquisition by Chandler, vol. i. p. 42—70. Medleine's Eccl. Hist. vol. ii. p. 580. 8vo.

ALBIN, in Geography, a town of France, in the department of the Aveyron, six leagues north-west of Rhodes.

ALBINA, in Conchology, a species of Helix, with a smooth perforated white shell, gibbous below, and quadrangular aperture. It resembles the Albita.

ALBINALI, in Geography, a town of Africa, in Arabia Felix.

ALBINATUS, see Aubaine.

ALBINE. See Assine.

ALBINE, in Entomology, a species of Phalaena Tinea, with brown wings, and a single golden line, arched on the fore part, found in the groves of the northern part of Europe.

ALBINEN, or Alpes, in Geography, a town of Switzerland, in the Vallis, 22 miles east of Sion.

ALBINGAUNUM, or Albium Ingaunum, a town of Italy on the north east side of Liguria. See Albenga.

ALBINI, in Antiquity. See Albarium Opus.

ALBINOS, in Zoology and Geography, a denomination given to the white negroes of Africa, who have light hair, blue eyes, and a white body, resembling that of the Europeans, when viewed at a distance; but, upon a nearer approach the whiteness is pale and livid, like that of leprous persons, or of a dead body. Their eyes are so weak that they can hardly see any object in the day, or hear the raves of the fun, and yet, when the moon shines, they see as well, and run through the deepest shades of their forests, with as much ease and activity, as other men do in the brighttest daylight. Their complexion is delicate; they are less rebuilt and vigorous than other men; they generally sleep in the day, and go abroad in the night. The negroes regard them as monstrosities, and will not allow them to propagate their kind. In Africa this variety of the human species very frequently occurs. Wafer informs us, that there are white Indians of the same general character among the yellow or copper-coloured Indians of the island of Darien; and the Chacoplas of Java, as well as the Bedas of Ceylon, seem to be of the same description. M. Buffon observes, that this variation of nature takes place from black to white only, and not from white to black; and that all the people in the East Indies, in Africa, and in America, among whom these white men appear, lie under the same latitude: the island of Darien, the Negro country, and the island of Ceylon being under the same parallel. It has been a subject of inquiry, whether these men form a peculiar and distinct race, and a permanent variety of the human species, or are merely individuals who have accidentally degenerated from their original stock. Buffon inclines to the latter opinion, and he adheres in proof of it, that in the island of America a husband and wife, both of a copper-colour, produce one of these white children; so that the singular colour and constitution of these white Indians must be a species of disease which they derive from their parents; and the production of whites by negro parents, which sometimes happen, confirms the same theory. According to this author, white appears to be the primitive colour of nature, which may be varied by climate, food, and manners, to yellow, brown, and black; and which, in certain circumstances, returns, but so much altered, that it has no resemblance to the original whites, because it has been adulterated by the caules that are affliigned. Nature, he says, in her most perfect exertions, made men white; and the same nature, after suffering every possible change, will renders them white; but the natural or specific whites is very different from the individual or accidental. Of this we have examples in vegetables, as well as in men and other animals. A white rofe is very different, even in the quality of whitefefs, from a red rofe, which has been rendered white by the annual frosts. He deduces a farther proof that these white men are merely degenerated individuals from the comparative weaknesses of their constitution, and from the extreme feebleness of their eyes. This last fact, he says, will appear to be less singular, when it is considered, that, in Europe, very fair men have generally weak eyes; and he has remarked, that their organs of hearing are often dull: and it has been alleged by others, that dogs of a perfectly white colour are deaf. This is a subject which demands farther investigation. Buffon, Nat. Hist. by Smellie, vol. iii. p. 179—182.

M. Sanfure, in his "Voyages dans les Alpes," gives an account of two boys at Chamouni, whom he refers to the chiefs of Albinois. One of them was about 20 or 21 years of age, and the other about two years younger. The elder had a dząd look, with thicklips, but his features in other respects were not different from those of other people. The youngt was of a more agreeable figure, and more sprightly. Their eyes were not blue; the iris was rose-coloured; and the pupil, when viewed in the light, appeared red; whence he infers, that the interior membranes were deprived of the vein, and of the black mucous matter by which they should have been lined. In their infancy, their hair, eye-brows, eye-lashes, and the down upon their skin, were very fine, and of a perfect milk-white colour; but at the age above-mentioned, the hair was of a reddish cast and more strong. Their sight was also strengthened, and, even in their infancy, was not much affected.
offended by the light of the day. They were unable to labour with persons of their age, and were maintained by the charity of a relation. Although they had not the thick lips and flat noses of the white negroes, this difference is owing, as M. Saurille thinks, to their being Albinos of Europe, and not of Africa. The malady that affects the eyes, the complexion, and the colour of the hair, enfeebles also their strength, without altering the configuration of their features; and of this malady, he apprehends, there are different degrees; so that it produces, in various instances, different effects. He at first ascribed it to an organic debility; in consequence of which, a relaxation of the lymphatic vessels within the eye, might admit the globules of the blood in too great abundance into the iris, uvea, and even the retina, and thus occasion the redness of the iris and of the pupil. This debility, he supposed, might account for the intolerance of the light, and for the whiteness of the hair. But M. Blumenbach, professor in the university at Gottingen, attributes it to a different cause. He has observed the same phenomenon in brutes, in white dogs, and in owls; and he says, that it generally occurs in the warm-blooded animals, and that he has never found it in those with cold blood. This ingenious phlogist is of opinion, that the redness of the iris, and of the other internal parts of the eye, as well as the extreme sensibility that accompanies it, is owing to the total privation of that brown or blackish mucus, which, about the fifth week after conception, covers all the internal parts of the eye in its fluid state. He observes, that Simon Pontius, in his treatise, "De coloribus oculorum," long ago remarked, that the interior membranes of blue eyes are less abundantly provided with this black mucus, and are therefore more sensible of the action of light. He adds, that this sensibility of blue eyes is very conformable to the situation of northern people, during their long twilight; and that, on the contrary, the deep black in the eyes of negroes enables them to bear the strong glare of the sun's beams in the torrid zone. As to the connection between this red colour of the eyes, and the whiteness of the skin and hair, he says, it is owing to a similarity of structure. This black mucus is formed, as he affirms, only in the delicate cellular substance, which has numerous blood-vessels contiguous to it, but contains no fat, like the inside of the eye, the skin of negroes, the spotted palate of several domestic animals, &c., and the colour of the hair generally corresponds with that of the iris. Gazette Lit. de Gottingue, Oct. 1784.

M. Buzzi, surgeon to the hospital at Milan, published, at the same time, in the "Opusc. Scelti de Milan, 1784, tom. vii. p. 11," a very interesting memoir, in which he demonstrates, by dissection, the hypothesis of M. Blumenbach. Having an opportunity of dissecting the body of a peasant, who died at the age of 30 years, in the hospital of Milan, of a pulmonary disorder; and who was remarkable for the uncommon whiteness of his skin, hair, beard, and all the other covered parts of the body: he found the iris of the eyes perfectly white, and the pupil of a rosy-colour; and the eyes were altogether destitute of that black membrane, called the uvea, which was not discernible, either behind the iris or under the retina. Within the eye, there was only found the choroidal coat, extremely thin, and tinged of a pale red colour, by vessels filled with discoloured blood. The skin, when separated from different parts of the body, appeared to be almost wholly divested of the rete mucosum, nor was the least trace of it to be discovered by maceration, even in the wrinkles of the abdomen, where it is most abundant and most visible. The whiteness of the skin and hair is ascribed by M. Buzzi to the absence of the rete mucosum, which, in his judgment, gives the colour to the cuticle, and to the hairs that are scattered over it. In proof of this opinion, he alleges a well-known fact, that if the skin of the blackest horse be accidentally destroyed in any part of the body, the hairs that afterwards grow on that part are always white, because the rete mucosum, which tinges those hairs, is never regenerated with the skin. M. Buzzi having assigned the probable proximate cause of this phenomenon, it still remains to determine, what is the remote cause of it, or how the rete mucosum is destroyed in such subjects. It seems to be a fact, very generally admitted, that persons of this description do not form a distinct species, as they are produced from parents with dark skins and black eyes. This was the case with respect to the Albinos of Chalmon. M. Buzzi relates a fact, cited by M. Saurille, which seems to throw some light on the subject. A woman of Milan had seven sons, of whom the two eldest, and the two youngest had brown hair and black eyes; the other three had white skins, white hair, and red eyes. During the pregnancies that produced these Albinos, the woman had a constant and immediate appetite for milk, which she took in great quantities, but when she was pregnant with the other four, she had no such desire. But it does not appear, that this preternatural appetite was not the effect of a certain heat, or internal disquiet, which destroyed the rete mucosum in the children before they were born. M. Saurille observes, that this faulty constitution is more rare among women than among men; and it does not seem to be owing to the air of the mountains; for though he traversed the greatest part of the Alps, and the other mountains of Europe, he met with no other individuals of this kind.

ALBINOVANTES, Pedo, in Biography, a Latin post, to whom Ovid address his 10th epistle, "Ex Ponto," Op. tom. iii. p. 876. Ed. Burmann. There are extant of his writings, his Elegy on Drusus, and another on the death of Mecenas, published by Le Clerc in 1793, 8vo. and in 1715, 12mo. at Amsterdam, with a prolix commentary.

ALBINUS, Bernhard, called Weiss of White, in Biography, was born at Deslaw, in the province of Anhalt, in Saxony, January 7th, 1653, and studied medicine at Leyden. In 1666, having taken his doctor's degree, he returned to his own country, where he soon distinguished himself for his sagacity and learning. In 1680, he was nominated professor of medicine at Frankfort on the Oder, and became so celebrated for the pericpicity of his lectures, that pupils flocked to him from all parts of Germany. In 1694, Frederic, elector of Brandenburgh, appointed him his physician, with a pension of 600 florins, and soon after gave him a canonry at Magdeburgh. In 1702, he was chosen professor of medicine at Leyden. Having filled that office 19 years with the highest reputation, he died on the 7th of September 1721, aged 68 years. A large collection of Theses is published under his name, the titles of which may be seen in Haller's Bibl. Med. Pract.

ALBINUS, Bernhard Sigefred, son of the former, prosecuted his studies with so much zeal and success, that on the recommendation of Boerhaave, he was appointed professor of anatomy and surgery at Leyden, in 1718, when he was only 20 years of age. This office he continued.
continued to fill by an uncommon fidelity, Haller says, for 50 years, and acquired a greater degree of reputation, as teacher, or demonstrator in anatomy, to which he exclusively dedicated himself, than had been enjoyed by any of his predecessors. He died, Sept. 9th, 1770, aged 73 years. His last work, entitled, "Historia musculorum hominis," 4to. appeared in 1754. In composing this, he took great pains to measure and describe all the injuries of the muscles in the bones, and to mark them in with aqua fortis, which he afterwards caused to be drawn by an excellent artist. In 1737, he gave some coloured plates of the arteries and veins of the intime, and some elegant figures of the bones of the fetus. An anatomical explanation of the plates of Eulachius, with a new edition of the plates themselves, was published by him in 1753, and republished with improvements in 1761. His own large tables of the skeleton and muscles appeared in 1747; and about the same time, seven tables of the gravid uterus. His great tables of the bones was edited in 1753; and again, in an improved state, in 1762. Eight volumes, 4to, of "Anatomical Annotations," replete with curious matter, but too much occupied with controversy, appeared successively from 1754 to 1768.

Besides his original works, which are numerous, and highly illustrative of the science, he published in 1755, an edition of the works of Vesalius, with an account of his life; in the same year, "Index capitellarum Raviann," and in the year 1737, "Galichini Harvei Opera, et Hieronimi Fabricii ab Aquapendente." See Haller's Bibliotheca Anatomica, vol. ii.

ALBINUS, CHRISTIAN BERNARD, though eclipsed by the imperial family of his brother, was so much esteemed for his skill and diligence, as he was raised to the chair of professor of anatomy, at Utrecht. He died April 5, 1752, aged 55 years. He published, in 1722, "Specimen Anatomicum, exhibens novum terrenum hominis intellimum descriptionem," 4to.; and the next year, "De anatome errores detegente in Medicina," also in 4to.

Two other authors of the same name are noticed by bibliographers; James, a native of Hamburg, who published in 1726, a "Dissertation on the Scary," and Eleazer, who published natural histories of Birds and Insects.

ALBINUS, JAMES, or WEISS, a celebrated historian and good poet of the 16th century, was born at Steenberg in Mufcia, and became professor of poetry and mathematics in the academy of Wittemberg, and then secretary to the elector at Dresden, where he published a second enlarged edition of the "Chronicles of Musia," which he had printed at Wittemberg in 1590. His other works, principally historical, were much esteemed. Biog. Diet.

ALBINUS, DECIMUS CLODIUS, was born at Aedriatum in Africa, and called Albinus, on account of his fair complexion at his birth. In his youth he was instructed in the Greek and Latin languages, and he is said to have written a treatise on agriculture, and a collection of Mithian tales, which was a licentious performance; but his prevailing taste inclined to a military life, and he was acculturated at school to repeat frequently, and with peculiar pleasure, the following verses from Virgil:

"Arma amens capio, nec fat rationis in armis."

_Alexiad, ii. v. 314._

"With frenzy seiz'd, I run to meet th' alarms;"

"Resolv'd on death, resolv'd to die in arms!"

DRYDEN.

He commenced his career under the emperor Antoninus, whose faults he acquired; and after some previous gradations of advancement, he commanded the army in Dithyrys, when Aurelius Cæsarius revolted against Marcus Aurelius. On this occasion he distinguished himself by his fidelity to his prince, and by his active services, for which he was rewarded, as it is said, with the consulship. Under Commodus he acquired reputation in several battles on the Rhine and on the Danube, and he was at length appointed commander of the legions in Britain. Whilst he governed Britain, Commodus, by the account of Capitolinus, which is not generally credited, indulged him with permission to assume the title of Caesar, with all the emblems proper to that dignity. However this be, Severus, as we are informed by Dion Cassius and Herodian, footed his ambition and engaged his attachment, by giving him this title. Albinus was deluded by this honour, and by the expectation which the emperor led him to entertain of sharing with him in the imperial government. Severus also appointed him his colleague in the consulsship in the year 154, ordered statues to be erected to him, and conferred upon him other distinctions, which afforded an opportunity ultimately of destroying him. Having defeated and killed Niger, whom he had animadverted and deceived by the same kind of diffamation which he was practising on the credulous Albinus, he determined to get rid of this rival, whose character, contrasted with his own, induced the senate to exchange one matter for another. Some say that, before he had recourse to open force of arms, he tried the base and pernicious means of affronting; but Dion Cassius's account is more probable, who says, that Severus, after his victory over Niger, deprived Albinus of the title and prerogatives of Caesar, and that Albinus, on the other hand, pretended even to the title of Augustus. Accordingly Albinus was proclaimed under this appellation, engaged Gaul and Spain in his interest, and followed with a powerful force to meet Severus, who had proclaimed him a public enemy. The two rivals, after some previous skirmishes, decided the contest for the empire in the plain between Lyons and Treveaux. Their two armies were equal in number, each of them consisting of 150,000 men, and they were led on by the two emperors. The troops on each side fought with great valour. The British legions under Albinus were not inferior to those of Ilyricum; but Severus was thought to be an able general than his competitor. The victory was long doubtful, but at length Severus prevailed; and Albinus was compelled to fly with the shattered relics of his army, first to Lyons, and then to a house near the Rhone, where he either destroyed himself with his own sword, or made one of his slaves perform the fatal office for him. He was not quite dead, when a detachment of the enemy arrived, cut off his head, and carried it to Severus. His wife and children were at first pardoned; but afterwards inhumanly maimed, and their bodies thrown into the river. The whole family of Albinus, all his friends, and most distant relations, without distinction of age or sex, were, by the orders of Severus, barbarously slaughtered, and their estates confiscated. Most of the great men of Gaul and Spain, who had manifested any attachment to Albinus, underwent the same fate. By means of these murders and confiscations, Severus amassed an immense treasure, enriched his soldiers, and, at his death, left incredible wealth to his children. This event happened on the 19th of February, according to Tillemont, A. D. 197, the 4th year of Severus's reign.

Of the character of Albinus, different accounts have been given. Capitolinus, on whose report we cannot much depend, represents him as stern, resolute, unfeignedly, rigid to cruelty in his discipline, glutinous and brutal. But this account is not very credible, when it is considered that his soldiers
soilers were attached to him, and that he was exceedingly beloved by the senate, and applauded for his justice and humanity. He seems, however, to have been a brave warrior, who had the art of making himself beloved; but who had not cunning enough to guard against the arts of his enemy, and this was the cause of his ruin. Crevier, Hist. of the Emperors, vol. viii. p. 63—66. Anc. Uni.

Hill. vol. xiii. p. 374—293.

ALBINUS, A. Posthumius, the colleague of Licinianus Luçinius in the confultum, in the year before Christ 151, wrote a History of the Affairs of Rome, in the Greek language. He is mentioned by Cicero in his Brutus (Oper. tom. i. p. 399. Ed. Olivet.) as a man of learning and eloquence. Upon his making an apology, and intreating pardon for the improprieties of expression that occurred in a work written in a language so different from that of his own country, Cato factiously asked, "Why did you choose rather to solicit pardon for a fault than not to have committed it?" His conduct however in this respect needed no apology, as the Greek language was known to almost all nations, whilst the latter was almost wholly confined to the Roman territory, and therefore his history would be more extensively read.

See Cicero per Archia, Oper. tom. v. 405.

ALBIOUCE, or ALBROCE, in Ancient Geography, called also Reij Apollinaris, from their worship of Apollo, and

Rerius Renfium, was a Roman colony of Gallia Narbonensis. It is now Rieus or Rieux, in Provence.

ALBION, a name formerly given to the island of Britain, comprehending England, Scotland and Wales, by way of contradiction from Hibernia, and the other British islands. Thus Agathemerus, (lib. xii. e. 47.) speaking of the British islands, saith, they are many in number; but the most considerable are Hibernia and Albion; and Ptolemy (lib. ii. e. 3.) calls Albion a British island. Pliny also (H. N. lib. iv. e. 16. tom. i. p. 222.) observes, that the island of Britain, so much celebrated by the Greek and Latin writers, was formerly called Albion; the name of Britain being common to all the islands round it. The etymology of the name is uncertain. Some derive it from the Greek αἶβον, alben, signifying white, in reference to the chalky cliffs on our coasts; others pretend that its name was borrowed from a giant, the son of Neptune, mentioned by several ancient writers. Some of our etymologists have recourse to the Hebrew tongue, and some to the Phoenician; αἶβον in the former signifying white, and ἀλπ or ἀλφιν in the latter, denoting high and high mountain, the land appearing for the first time of its duration from the continent. The derivation from the Greek or Hebrew word signifying white, seems to be countenanced by the fact that the poet, who called Britain Inis Wen, i.e. the White Island. Selden's notes on Polybius, p. 29.

ALBION, New, in Geography, the name given by Sir Francis Drake to the California, and part of the north-west coast of America, which he took possession of in 1578. Captain Cook discovered the coast of New Albion, March 7, 1778, and landed in a place situated in N. lat. 44° 33'. E. long. 235° 20'. He describes the land as abounding with mountains, the summits of which were covered with snow; but the valleys that lay between them and the sea-coasts, high as well as low, produced a great number of trees, which appeared like a large forest. The inhabitants at first seemed to prefer iron to every other article of commerce; but they afterwards liked such a predilection for brass, that scarcely a fragment of it was left in the ships except that which belonged to the necessary instruments. They were also observed to be much more tenacious of their property than those of the other savage nations which the voyagers had met with, so that they would not part with wood, water, grass, or even the most trifling article, without a compensation; and they were sometimes very unreasonable in their demands. The place in which the Resolution anchored was called by Captain Cook, St. George's Sound; but he afterwards understood that the natives gave it the name of Noottka. Its entrance was situated in the east corner of Hope bay, in N. lat. 45° 33', E. long. 235° 12'. The climate seemed to be much milder than that of the eastern coast of America, in the same parallel of latitude; and the thermometer, even in the night, never fell lower than 42°, and in the daytime frequently rose to 60°. The trees of this country are chiefly the Canadian pine, white cypress, and some other kinds of pine. The birds were few, and much harried by the natives, who use their feathers as ornaments for their darts, and their flesh for food. The people are acquainted with the use of metals, having many iron tools; and two silver spoons were procured, which were similar in their constitution to those seen in some Flemish pictures, and were worn by one of the natives as an ornament round his neck. These metals had probably been conveyed to them by the way of Hudson's bay and Canada, or some of them might have been introduced from the north-western parts of Mexico.

On the 18th of April, 1792, Captain Vancouver employed in an expedition for completing the survey of the western coast of North America, from the latitude of 36° to 66° N., fell in with the coast of New Albion in N. lat. 39° 27', E. long. 236° 25'. As he approached the land, the shore seemed to be perfectly compact, formed, generally speaking, by cliffs of a moderate height and nearly perpendicular. The inland country, which arose in a pleasing diversity of hills and dales, was completely clothed with forest trees of considerable magnitude, and those spots, which were delititude of wood, were beautifully green, with a luxuriant vegetation, interspersed by breaks of natural earth. This part of the coast abounded with whales, most of which were of the tribe called the Greenlanders. In directing their course along the coast northward, they passed Cape Mendocino, in lat. 40° 19', long. 235° 55'. This Cape is the first headland that this part of New Albion. The mountains behind it are considerately elevated, and form a high rock mass, composed of various hills that rise abruptly, and are divided by many deep chasms. Dwarf-trees were thinly fattered in the cliffs and on the ridges of the hills; and the general surface was covered with vegetables of a dull green colour, occasionally interfered with perpendicular strata of red earth or clay. As they advanced further north, the diffused interior country was composed of mountains of great elevation, before which were perceived hills and dales, with woodland and clear spots, as if they were in a state of cultivation; but they could discern neither houses, huts, smoke, nor any other signs of its being inhabited. On the coast to which they next approached, and which was formed by rocky precipices, the most projecting part, situates in lat. 41° 8', long. 236° 5', was called Rocky Point. Near this point the colour of the sea changed to a light river-coloured water, which gave reason for concluding that some considerable river or rivers were in the neighbourhood; but pursuing their course they arrived again, in oceanic-coloured water, in lat. 41° 30', long. 235° 58'. The land in this part, formed a conspicuous point, which was distinguished Point St. George, in lat. 41° 46', and long. 235° 57', and a dangerous cluster of rocks extending from thence, the Dragon rocks. The point forms a bay, and the north point of it was called St. George's bay. The inland mountains were much elevated, and clothed with a variety of trees, chiefly of the pines, and some spreading trees of considerable magnitude were observed. Proceeding further along the coast they call anchor in lat.
42° 38', long. 235° 44'; a cliff which projected into the sea near their station, and terminated in the form of a wedge, was called Cape Orford, lat. 42° 52', long. 235° 15'. Some canoes came from the coast to visit the ships, and approached alongside of them with the greatest confidence. The people were distinguished by a pleasing and courteous deportment; their countenances indicated nothing ferocious; their features partook of the European character; their colour was a light olive; and besides being punctuated like that of the south-sea islanders, their skin had many other marks, which were either the effects of injury in roving through the forests with thin clothing, or purely ornamental. Their stature did not exceed five feet six inches; they were well-limbed, but flender in their persons, bony little or no resemblance to the people of Nootka; nor did they seem to have the least knowledge of their language. They preferred cleanliness to the painting of their bodies; in their ears and noses they had small ornaments of bone; their hair, which was long and black, was clean and neatly combed, and generally tied in a club behind, and some of them had it thus tied in front. They were drest in garments, nearly covering them, made principally of the skins of deer, bear, fox, and river otter. Their canoes, capable of carrying about eight people, were rudely wrought out of a single tree, resembling in shape a butcher's tray, and appearing to be unfit for either a sea voyage or any dilatent expedition. *They brought but a few articles to barter, and they anxiously solicited in exchange iron and beads. In their traffic they were scrupulously honest in fixing their bargain with the fullest bidder, and in refusing any presents without an equivalent in return.*

In their progress from their last station near Cape Orford, they discovered a point of land which they considered to be the Cape Blanco of Martin d'Aguilar, in lat. 43° 28', long. 235° 56', and the Cape Gregory of Captain Cook; and they fought for the river or straits, which are said to have been discovered by this navigator. They next arrived at a promontory, which Captain Cook calls Cape Perpetua, in latitude 44° 11', longitude 236° 51'; and purving in the vicinity of this point the whole stretch of land to the southward of Cape Orford, and at this place, seen any inhabitants, or met with any circumstances, that in the most distant manner indicated a probability of the country being inhabited. Since they had passed Cape Orford, they had a constant current, setting in the line of the coast northward, at an uniform rate of near half a league per hour.

In this part of the coast the most remarkable mountain which they had seen, presented itself: its summit, covered with perpetual snow, was divided into a very elegant double fork, and rose conspicuously from a base of lofty mountains clothed in the same manner, which defended to hills of a moderate height, and terminated in low cliffs, falling perpendicularly on a sandy beach. This was considered to be the mount Olympus of Mr. Mears, in latitude 47° 10', though the latitude of the observers was 47° 38', and the mountain was north of them. Purving their course further northward, they distinguished the south point of entrance into De Fuca's straits, and on the opposite side of the strait an opening of considerable extent. They perceived that this coast, like that which had been explored from Cape Mendocino, was firm and compleat, without any opening into the Mediterranean sea, as stated in latitude 45° 45', or the least appearance of a secure harbour, either in that latitude, or from it southward to Cape Mendocino; although, in that space, geographers have thought it expedient to furnish many. They now saw several villages clustered along the shore, whose inhabitants came off, as it was suppos'd, for the purpose of trading. Having passed between Tatoosh or Island, and a rock, called Rock Duncan, along the southern shore of the supposed straits of De Fuca, they anxiously looked for the point which Captain Cook had denominated Cape Flattery; and at last concluded, that Chaffet, a projecting and conspicuous promontory, at the south entrance of the inlet, is the point, with an island lying off it, which Captain Cook called Cape Flattery. The village of Chaffet is situated about two miles within the cape, and appeared to be extensive and populous. The few natives, who came off to the ship, resembled in most respects the people of Nootka; their persons, garments and behaviour, were very similar; but instead of the ornamental crecent at the nose, used by the inhabitants of Nootka, they wore flaked pieces of bone; their canoes, arms and implements were the same, and they spoke the same language. They anchored about eight miles within the entrance, on the southern shore of the supposed straits of De Fuca. The shores on each side of the straits are of a moderate height; those on the south side are composed of low sandy cliffs, and from the top of thebe the land appeared to ascend gently, and to be covered with trees, chiefly of the pine tribe, until the forest reached a range of high craggy mountains, the summits of which were covered with snow. The northern shore did not appear quite so high, nor were the mountains, which formed a compact range, so much covered with snow. Steering to the east, along the southern shore, their latitude was 48° 19', and longitude 236° 19', one of the last; the variation of the compass 18° east. The north promontory of Chaffet was situated in latitude 48° 23', longitude 235° 38'. Proceeding forward, they came to anchor in 14 fathoms water, about three miles from a low sandy point of land, resembling Duengenes in the British Channel, and called New Dungenes: whence they discovered a lofty mountain, which they called Mount Baker, apparently at a very remote distance. "We had now," says Mr. V. "advanced further up this inlet than any other person from the civilized world; although it should hereafter be proved to be the fame which is said to have been entered.
tered by De Fuca; in support of which, oral testimony is the only authority produced, a tradition rendered still more doubtful, by its entrance differing at least 40° in latitude. This difference of latitude, however, is not sufficient altogether to discredit the traditional accounts to which Mr. V. refers; and as a flint, with a considerable extent of sea, has been actually found, and to the north of the flint many islands, or an archipelago of islands, it is much more reasonable to suppose that some error has been introduced into the old accounts, or that the situations may originally have been erroneously described, than that an admission of the existence of a flint and of an archipelago of islands should have been the mere result of random conjecture.

It must be considered as a very singular circumstance, that in no great an extent of sea coast, as 215 leagues, to which the inquiries of these navigators had been directed, they should not till now have seen the appearance of any opening on its shores, which afforded any certain prospect of affording shelter; the whole coast forming one compact, solid, and nearly flint barrier against the sea. The hills observed to the southward of Clatsch, were built exactly like the houses at Nootka; and were composed of a few masses thrown over crooks and slacks, and plainly indicated the residence of the natives to be merely temporary. The inhabitants viewed their European visitors with the utmost indifference; they traded with them in a civil and friendly manner, but did not appear to understand the Nootka language. Their next remove was to a harbour called Port Discovery, where they moored about a quarter of a mile from the shore under a kind of promontory, which afforded them shelter; and which they called Protection island. The entrance of port Discovery is situated in lat. 49° 40', long. 237° 20'. The country in its neighbourhood is bounded on the west by mountains covered with snow; the soil is generally a light sandy loam, which being mixed with decayed vegetables, forms a rich fertile mould. Iron ore was generally found here, and appeared tolerably rich. Quartz, agate, the common flint, and a great intermixture of other silicious matter, with some variety of calcareous, magnesian, and argillaceous earths, were the mineral productions commonly found. The vegetables that grew most luxuriantly were the Canadian and Norwegian hemlock, silver pines, the Turamallie and Canadian poplar, arbor-vita, common yew, black and common dwarf oak, American ash, common hazel, fycamore, fugar, mountain, and Pentylvanian maple, oriental arbutus, American alder, and common willow. These, with the Canadian elder, small fruited crab, and Pennylvanian cherry-trees, constituted the forests. Of excelent vegetables few were found; the white or dead-nettle, and samphire, the wild orchase and the vetch were the most common. Two or three sorts of wild peas, and the common hedge mustard were met with occasionally; they were excellent of their kind, and proved extremely agreeable and useful. The only living quadrupeds that were seen were a black bear, two or three wild dogs, as many rabbits, several small brown squirrels, rats, mice, and the skunk of a peculiarly offensive smell. The aquatic birds were few, and so timid that they could not be killed. About the shores and on the rocks were found some species of the tern, the common gull, sea pigeon of Newfoundland, curlews, sand-larks, shags, and the black sea-pye, like those in New Holland and New Zealand; but not in great abundance. In the woods they saw two or three spruce-partridges; few small birds were discovered, and of these the humming birds were the most numerous. At the outskirts of the woods, and about the water side, they saw a great number of the white-headed and brown eagle, ravens, carrion crows, American king-fisher, and a very handsome wood-pecker, and also a bird unknown to them, which they considered as a specks of crane or heron, the eggs of which were of a bluish colour, larger than those of a turkey, and well tailed, with long legs and necks, of the size of the largest turkey, and with a light brown plumage. Some blue, and some white herons of the common size were also seen. The supply of fish was scanty, and confined in general of the common sorts of small flat-fish, elephant fish, sea bream, sea perch, a large sort of tuncipin, weighing fix or eight pounds, with a greenish colour about their throat, belly and gills, and affording coarse, but not unwholesome food, a few trout, and a small eel of a yellowish green colour and well tailed. Of the reptile tribe they found a small common black snake, a few lizards and frogs, together with a great variety of common insects.

The country, in an agricultural view, seemed capable of improvement, though the soil was light and sandy. The spontaneous productions are nearly the same, and grow in equal luxuriance with those under the same parallel in Europe. The climate is mild, and every species of plants forward in its growth. Fresh water is very scarce; but sufficient for common domestic purposes. As for the inhabitants, they are thinly scattered along the shores. From New Dundegn's to Port Discovery, our voyagers travelled near 150 miles of these shores without seeing as many inhabitants. Those whom they observed, nearly resembled the people of Nootka; but were not so robust in stature, nor so filthy in their habits. Their weapons, implements, canoes, and disbris near the same. Their native woollen garment was most fashionable, and next to this the skins of deer, bear, &c.; and some few were drest manufactured from bark, which, like their woollen ones, were very neatly wrought. Their spears, arrows, fish-hooks, and other weapons, were shaped like those of Nootka; but none of them were pointed with copper or mufle-shell. The three former were generally barbed, and those of their own manufacture were pointed with common flint, agate, and bone. Their arrows were pointed with thin flint iron; and their bows were of a superior construction, and made of yew, and the bow-string of the sinew of some marine animal. From the form and structure of their habitations, they seemed frequently to change them; and their deserted villages indicated their being migratory in their disposition and habits. Mr. V. supposes, however, that though the country seems to be thinly inhabited, it was once much more populous. In different excursions, they found the skulfs, limbs, ribs, and back-bones, or other vestiges of the human body, scattered about in great abundance; and hence it is inferred that there has been occasionally, and not at any very remote period, a great waste of human life. Several skeletons were found deposited in caves, and suspended on the branches of trees about 12 feet from the ground; these were probably the remains of the chiefs, priests, and leaders of particular tribes, to whom they paid particular respect. Baskets, containing the skeletons of young children, were also found in the same situation; and in other places, dead bodies were discovered in holes, which were slightly covered over, and in different states of decay. But the skeletons found in caves and baskets bore a very small proportion to the skull and other human bones indiscriminately scattered about the shores. Whether these were the reult of epidemic disease, or of recent wars, our navigator does not determine. From the character of the people, he thinks the latter cause not to be probable; for he represents them as uniformly civil and friendly, without manifesting the least sign of fear or suspicion at the approach of strangers, or any indication of their having been injured to hostility. The
small-pox seemed to have been very fatal amongst them. The present depopulation, it is apprehended, may have arisen, in some measure, "from the inhabitants of this interior part having been induced to quit their former abode, and to have moved nearer the exterior coast, for the convenience of obtaining in the immediate mart, with more ease and at a cheaper rate, those valuable articles of commerce that within these late years have been brought to the seacoasts of this continent by Europeans and the citizens of America, and which are in great estimation among these people, and policed by all in a greater or less degree."

From Port Discovery, our navigators pursued their route up the inlet, viewing in their progress a very picturesque and fertile country, and seeming to require only inhabitants and cultivators; having found a convenient roadstead, they anchored near a village in which the inhabitants were employed, in their temporary huts, in curing, by the smoke of the fire, deer's, muskets, and a few other kinds of fish, which seemed to be intended for their winter's subsistence. Several of these were handily engaged, like swine, in rooting up a beautiful verdant meadow, in quest of a species of wild onion and other roots, for the sake of which they appeared to be attached to this spot. One of these roots resembled the Saranne, and was gathered with great industry and activity, for the purpose of making a paste with which they filled small boxes, placed in the baskets containing the flickets of their children. In their manner, these people were friendly and hospitable, and very thankfully received the presents that were given them. They also bartered for any articles that were offered them; but they chiefly preferred copper. Bows and arrows, woollen and skin garments, and a few indifferent otter skins, composed the whole of their allotment for trading; and these they exchanged, in a very fair and honest manner, for copper, hawk's bells, and buttons, articles that greatly attracted their attention.

The dogs belonging to this tribe of Indians were numerous, and resembled those of Pomerania, but were larger in size. They were all thorn close to the skin, like our sheep; their fleeces were compact, and composed of a mixture of a coarse kind of wool, with very fine long hair, capable of being spun into yarn. It was conjectured, that their woollen clothing might be formed partly of this material, mixed with a finer kind of wool from some other animal, which, though it must have been very common, was not discovered.

Here was discovered a narrow passage, which seemed to communicate with an opening of some extent, and to this harbour was given the name of Port Orchard. In their present situation, they were presented by some of their Indian friends with a whole deer, in the chase of which and another they and their dogs had been busily engaged for almost a whole day. It was found that these people had a great aversion for human flesh; for conceiving that some pieces of the deer that were offered them were of this kind, they threw them away with gestures of great displeasure. Hence it was inferred, that the character given of North-west America does not attach to every tribe; but though these people were not in this respect savages, they were not wholly exempt from the general failing attendant on a savage life; for one of them secreted a knife and fork under his garment, and when detected gave them up with the utmost good humour and unconcern.

Our navigators, having advanced into an opening, situate in lat. 47° 19', and long. 237° 42', halted on an island about a mile from the eastern shore, which was one of the most extensive islands discovered in the examination of this coast, and which they called Fajhon's Island. In one inlet which they examined, they found a tribe of Indians, who manifested hostile dispositions, and prepared their bows and arrows for an attack. Upon the firing of a gun, though they expressed no alarm or concern, they unfurled their bows, and commenced a friendly traffic. The village point near their present station, situate in lat. 47° 30', long. 237° 46', was called Restoration Point. Their next anchorage was in an excellent harbour, sheltered from all winds, in lat. 48° 21', long. 237° 57'. The inlet, which they had spent a fortnight in examining, they denominated Admiralty Inlet. On the 5th of June, they quitted this inlet, falling down Passiehon Sound, and proceeded northward; the north point of this inlet, lat. 48° 16', long. 237° 31', they called Point Partridge; and the west point, lat. 48° 10', long. 237° 31', they denominated Port Wilson. On the west side of Strawberry Bay, where they anchored, there was an island, which producing abundance of upright cypresses, they called Cyprus Island, lat. 48° 56', long. 237° 34'. It was also found, that the eastern shore of the gulphs, from the passage into Port Gardner, called Deepion Passage, in lat. 48° 27', long. 237° 27', to the north point of the entrance into Passiehon Sound, in lat. 47° 53', long. 237° 47', was an island about 4 miles wide in its broadest part; and this was distinguished by the name of Winday's Island. In pursuing their investigation, they discovered a point, in lat. 45° 57', long. 237° 26', Point Roberts; another, in lat. 45° 10', long. 237° 26', Point Grey; a third, about a league distant, Point Aikinon; an island which they called, Passage Island; and a canal near it, Bernard's Canal; and another island, in lat. 49° 35', long. 237° 45', Angus Island, from the shape of the mountain that compacts it; a found to the southward, Howe's Sound; and a point in lat. 49° 23', long. 236° 51', Point Geese, near which is an extensive group of islands of various sizes. In their return to their ships, they reached the north point of the inlet, which producing the first Scotch fir that had been seen, was called Scotch Point, in lat. 49° 42', long. 236° 17'; and to the arm of the sea they gave the name of Foreland Canal. The south point of the land which they passed in lat. 49° 28', long. 236° 24', was called Point Upwood; and a shoal, near which they purchased of the natives some excellent turbot, weighing from 14 to 20 lb. each, they called Sturgeon Bank. Near a cluster of islands, in lat. 48° 36° to 48° 48', and long. 237° 50', at its eastern extremity, they found an extensive bay, which was distinguished as Bellingham's Bay. In their progress northward, the forests were composed of a much less variety of trees, and their growth was less luxuriant. Those most common were pines of different sizes, the arbor vitae, the oriental arbutus, and some species of cypresses. On the islands were seen some few small oaks, with the Virginian juniper; and at the place where their ships were last stationed, the Weymouth pine, Canadian elder, and black birch, which gave it the name of Birch Bay, situate in lat. 48° 53', long. 237° 33'. From this bay they failed northward, June 24th, directing their course through the canal del Neultra Signora del Rosario, in extent about ten leagues from Point Upwood to Point Marshall, the north-west point of the island of Feveda, in lat. 49° 48', long. 235° 47'; near which is another island, called Harwood Island, and not far off, in lat. 39° 57', long. 235° 54', Savary Island. In lat. 50° 44', long. 235° 25', was a point which they called Point Sarah; and the opposite point, about half a league distant, they called Point Mary. In a canal, denominated But's Canal, they found an Indian village on the face of a steep rock, lat. 50° 24', long. 235° 8', containing about 150 of the natives, who plentifully supplied them with fresh herrings and other fish in
in barter for nails. Before the entrance into this canal was a
round island, three or four miles in circuit, which obtained the
name of Saint's Island. Quitting Deception Sound, in lat. 50° 11',
long. 235° 21', they sailed through an immense
Expanse of islands and rocks, and in the midst of whales and
dolphins, to more pleasant shores, from which the
friendly Indians came to visit them, with young birds,
particularly sea-fowl, fish, and some berries, which they bartered for
inlets; and they anchored about 20 miles to the northward of
Point Mortay, in lat. 50°, long. 235° 9', where was a large
village of the natives, who conducted themselves with great
convenience and respect, and who were not fewer in number than
300 persons. Near Johnstone's Straits was a point, called
Point Chatham, in lat. 50° 19', long. 234° 45'. About ten
miles from this point they anchored under a narrow island,
distinguished by the name of Thevenot's Island. To a snug and commodious port, to which they afterwards arrived,
they gave the name of Port Neville; near which was a large
village, the inhabitants of which understood the language of
Nootka, and who bartered with the skins of the Sea-
otter of excellent quality, for sheet-copper and blue cloth.
Here they found the fabrication of mats for various pur-
poses, and a kind of basket, wrought so closely as to con-
tain water without the least leakage; and in this manu-
facture, the women were chiefly employed. They next pro-
cceeded by Call's Canal, in lat. 50° 42', long. 234° 31'.
Knights Canal, in lat. 50° 1', long. 234° 13'; and Deepsea
Bluff, a point of land in lat. 50° 52', long. 234°, through an
exclusive cluster of islands, rocky inlets and rocks, called
Dronkton's Archipelago, to a station in lat. 50° 35',
long. 233° 19'.
Afterwards they entered a channel called Fiji's
Passage, and found its eastern point, named Point Diff, to be
in lat. 50° 48', long. 233° 0'. Passing Point Philips, at the distance of eight miles from Deep Sea Diff, they
reached the base of a remarkable mountain, in lat. 50° 1',
long. 233° 20', called Mount Stephen's, which is thus marked
in the author's chart, and may seem as an excellent guide
to the entrance of the various channels with which this
country abound. The next place of their meeting was
named Point Belcher, in lat. 50° 51', long. 233° 52', near
the west point of a channel called Wells's Passage. Having
pursued their course through a channel not more than half a
mule wide, bounded on one side by islands, rocks, and
breakers, which appeared almost to meet the continental
shore on the other, they anchored in lat. 50° 2', long. 233° 25'.
They afterwards proceeded through a channel about two
miles wide, between rocks and rocky islands, which seemed
to be connected with the southern broken shore, and reached
that part of the coast that had been visited and named by
several of the traders from Europe and India. The inlet
through which they had lately passed was Queen Charlotte's
Sound, so called by Mr. S. Wedgborough, in August 1786;
an opening on the continental shore had in the same year been
named Smith's Inlet, by Mr. J. Hanna; a high Distant
mountain that appeared to be separated from the main land,
formed part of a cluster denominated by Mr. Duncan,
Colvert's Islands; and the channel between them and the main
land had been called by Mr. Hanna, Fitzburgh's Sound.
Their estimated latitude in this situation was 51° 4', and
long. 232° 8'. They next sailed across Charlotte's Sound
for the entrance of Smith's Inlet; afterwards stealing along
the eastern side of Colvert's Island, they sought for Port
Safety, laid down in Mr. Duncan's chart, or some other
convenient anchorage. A cave within the fourth entrance of
Fitzburgh's Sound, afforded them a secure and comfort-
able retreat from the dangers to which they had been ex-
posed, and they called it Safety Cove. Determining to
abandon the northern survey of the continental shore for
this season, they made the heel of their way towards
Nootka Sound, at which port they anchored on the 28th of August 1792. In this survey, they had traced the
western continental shore of America, with all its various
turnings, windings, numerous arms, inlets, creeks, bays, and
large inlets to the northward of that point. They also found that the land forming the north face of that point is part of an island, or
rather of an Archipelago, extending nearly 100 leagues in
length from south to north, and on the side of this land most distant from the continent is Nootka Sound.
In October 1792, our navigators left Nootka Sound, and
proceeded to re-examine the coast of New Albion to the
southward, and particularly a river and a harbour discovered
by Mr. Gray, commander of the Columbia, between the 45th and 46th degrees of north latitude. They directed their course towards Cape Flattery, to which they referred
Captain Cook's original appellation of Cape Flattery. One
of the most copious promontories southward from this
cape was Point de los Reyes, as it is called by the Spaniards,
in lat. 37° 6', long. 237° 24'.
Southward of this point, the shore forms the north point of a bay, in which, according to the
Spaniards, Sir Francis Drake anchored, in the vicinity of
which is a port called by the Spaniards Bodega. They next proceeded to port S. Francisco, a Spanish settlement, in
lat. 37° 48', long. 237° 52'. The mean variation of the compasses was 12° 48'.
Leaving this port, they sailed for Monterey, another Spanish settlement. From hence they receded towards the Sandwich islands.
In April 1795, our navigators again visited the coast of
New Albion; they first sailed for the coast at Cape Mendocino,
and anchored, on the 2d of May, in Port de la Trinidad,
so called by the Spaniards, which they discovered in 1775;
but they found it a less convenient haven than they had been led to expect from the description given of it in the journal of Don Francisco Maurelli, translated by the Honourable
Daines Barrington. The inhabitants of an Indian village
in this neighbourhood, who visited the ships in their canoes,
shadowing the other Indians as they drew near, and traffic-
ked in bow and arrows, inferior sea-otter skins, small
knives, and fish. They were roughly made, but of a
lower stature than any other Indians on this coast. Their
perons were mutilated or disfigured, either for ornament or
from a regard to some religious institution, or for some
other unknown purpose. All the teeth of both sexes were,
by some procures, ground uniformly down, horizontally,
to the gums; the women especially, carrying the fashion to an
extreme, had their teeth reduced even below this level; and
ornamented their lower lip with three perpendicular
columns of punctuation, one from each corner of the
mouth, and one in the middle, occupying three-ninths of the lip, and
chin. The latitude of the ship's station was 41° 3', and
that of Rocky Point, five miles to the north, 41° 8', and the
longitude of Trinidad Bay 236° 6'. From Trinidad,
pursuing their course to latitude 45° 53', longitude 233° 17',
they saw the coast of the island of Quadrant and Vancouver,
and were within a league of Ponta de Ferron; and passing
along the shore of the Isle de Ferron, they proceeded to
Nootka, and anchored in Friendly Cove. From hence they
failed to Fitzburgh's Sound, and recommenced their ex-
amination of the part there where it had been discontinued in
in the preceding year. The survey now made, in most of its cir-
cumstances, resembled the former. They found the same
kind
kind of broken coast, with inlets and channels almost insurmountable, and the same extraordinary depth of water close to the shore, and in places included within the land. In the space of four months, devoted to this northern survey, they advanced little more than four degrees northward, leaving off between the 56th and 57th degrees of north latitude.

In a place near Fijner's Canal, in lat. 52° 29' latt. 23° 51', the natives offered for sale the skins of the animals whose wool is manufactured into the garments worn by the inhabitants of north-west America. They were too large to belong to any of the canine race, as our navigators had formerly supposed. Exclusively of the head or tail, they were 56 inches long, and 36 inches broad, exclusively of the legs. The skin afforded but little wool in proportion to its size; and it is chiefly produced on the back and towards the shoulders, where a kind of creel is formed by long pointed hairs, protruding themselves through the wool, and the same sort of hair forms an outer covering to the whole animal, and entirely hides the wool, which is short and of a very fine quality. The skins were cream-coloured, the pelt was thick, and appeared to be of a strong texture; but they were too much mutilated for ascertaining the animal to which they belonged. The females of this part adopted a singular ornament. An horizontal incision was made about three-tenths of an inch below the upper part of the under lip, extending from one corner of the mouth to the other, justly through the flesh; this orifice was then stretched sufficiently for admitting an ornament of wood, of an oval form, and hollow on both sides; which was confined closely to the gums of the lower jaws, and whose external surface projected horizontally. The clothing of the natives was formed either of these skins or of the pine bark, and ornamented with woollen yarn, very fine, well spun, and dyed with a very lively and beautiful yellow. As to their dispositions and manners, they seemed to be civil, good-humoured and friendly; and they manifested a considerable degree of vivacity and humour. They approached and left the ships with songs; they appeared to be happy and cheerful, and to live in the strictest harmony and good fellowship with one another. They were well versed in commerce. In examining some of the openings, which presented themselves in the continental shore, and which Mr. V. traversed in boats for 23 days, through a distance of 700 geographical miles, he was attacked by a party of Indians, under the direction of an old woman, who seemed to be their leader. In this survey they discovered a river, in 55° N. lat. on a bay, in the eastern side of the entrance of an arm of the sea, named by Captain V., Observatory Inlet. This small river, and another in Port Effington, were the only two forams that had yet been discovered to the north of the river Columbia. In September our navigators returned from between 56° and 57°, the highest latitude to which they advanced in this voyage, towards the south, keeping at a distance from the continent, and to the westward of Queen Charlotte's islands. Having finished their survey of the coast of north-west America, from the 30th to the 65th degree of north latitude, they concluded that no navigable communication exists between the north Pacific, and north Atlantic oceans; nor between the waters of the Pacific, nor any of the lakes or rivers in the interior part of the continent of North America.

In a third voyage, in 1794, Capt. Vancouver and his associates surveyed the higher latitudes of the north-western coast of America. Their first object was Cook's Inlet; hence they proceeded to examine Prince William's Sound; passing some points and capes of lesser note, they steered southward from Cape Fairweather, in N. lat. 58°
drought. The rainy season is from the month of December to March; the autumn in general being very dry. However the absence of rain is compensated by dew, which serve to supply, in some measure, the want of moisture from running streams, which are few. The climate at the settlements is, upon the whole, healthy; the soil is of a light and sandy nature, generally fertile, and capable of improvement; but in some places it is so barren and unproductive, that good mould has been brought from a distance, to places where they wished to establish missions. The Spaniards have not turned to any solid advantage even the most fertile part. They have excellent sheep and poultry in the vicinity of Santa Barbara, which is the most barren part; and the sea affords an ample supply of good fish. The neighbourhood of Buena Ventura furnishes fruit in great abundance, and of excellent quality. The fruit consists chiefly of apples, pears, plums, figs, oranges, grapes, peaches and pomegranates, together with the plantain, banana, cocoa-nut, sugar-cane, indigo, and a great variety of the most useful kitchen herbs, plants, and roots. The pueblos differ from the missions and pueblos, and may be better expressed by the term villages. They are composed of about 30 or 40 old Spanish soldiers, or creoles, who, having served in the missions or pueblos, are exempted from any farther military duty; and they plant colonies in some of the most fertile spots of the country. The number of the natives, at this period, who have embraced the Roman Catholic religion, under the Franciscan and Dominican missionaries in New Albion, and through the peninsula of California, amounts to about 20,000, and they are estimated at about an eighth or tenth of the whole native population; and their progress towards civilization is very slow. The number of the military does not exceed 400 men. Mr. Vancouver says, that the natives neither are, nor can be tributary; because they possess no tribute to offer. But this declaration seems to undervalue a country, which has, in many parts of it, a peculiarly fertile soil, and the coast of which abounds with sea-otters. The labour of the natives is subject to the direction and control of the Spanish missionaries, who are absolutely under the authority of the Spanish government; and we learn from the unfortunate navigator M. de la Pérone, that it was the plan of the viceroy of Mexico, to refer for government the exclusive trade of sea-otter skins; and that the Spanish settlements furnish 10,000 annually, and are capable, if duly collected, of supplying 50,000 annually. Vancouver's Voyage of Discovery to the north Pacific Ocean, &c., three vols. 1798.

ALBIREO, in Astronomy, a star of the third or fourth magnitude, in the constellation of Cygnus.

ALBIS, in Ancient Geography, now the Elbe, ran through the middle of Germany, and marked the limit of the knowledge of the Romans, with regard to this country. The only Roman, who passed this river with his army was L. Domitius Ahenobarbus, A. D. C. 74; and though he made no farther progress, the passage of the Albis was deemed worthy of a triumph. See Tacitus, Anni. iv. c. 44. Drusus and Tiberius were the only Romans who had advanced to this river. In the latter period of the Roman state, the Albis became the boundary of Germany to the north; the Sarmatae having poissified themselves of that part which lay beyond it, called Transthalin Germany. See Elbe.

ALBIS, in Geography, a town of Switzerland, in the canton of Zurich, three miles south-west of Zurich. It is also the name of a mountain in the same canton.

ALBISOLA, a town of Italy, in the state of Genoa, having in its vicinity the country houses of the Genoese nobility, and also a manufacture of porcelain. This town was bombarded by the English in 1745. N. lat. 44° 15' E. long. 8° 20'.

ALBISTRUM, or ABISTRUM, in Ancient Geography, a town placed by Ptolemy, in Magna Grecia.

ALBIUM INGAUNUM and TEMETELIUM. See ALBIUM INGAUNUM and ALBIUM TEMETELIUM.

ALBIUS MONS, was the name given to one of the mountains of the Alps, on the side of Rhetun and Carnia.

ALBIZI, or BARTELMUMI, in Ficta, in Biography, a Franciscan of the 14th century, who, in a book intitled, "The Conformities of St. Francis with Jesus Christ," attempts to exalt his favourite saint not only above all the other saints, but to an equality with Jesus Christ. It has been often printed, and much sought after as a curiosity. It was printed at Cologne, in 1532, with alterations, under the title of "Antiquitates Franciscanae." Another corrected edition was printed by Marcus, at Liege, in 1538.

ALBO, in Geography, a river on the easterly boundary of the Gold Coast of Africa.

ALBOCELLA, in Ancient Geography, a town of Spain, which, according to Ptolemy, belonged to the Vaccei.

ALBOCENIS, a town of Dacia, the inhabitants of which were denominated Albocenii.

ALBOGALERUS, in Roman Antiquity, a facerdotal cap, or ornament worn by the flamen dialis; otherwise called galerus.

ALBOIN, in Biography and History, king of the Lombards, was the son of Audoic, under whose conduct they obtained leave of the emperor Julianian to settle in Pannonia, and succeeded his father in the kingdom. Whilst he was fighting under his father's standard, he encountered and flew the son of Turfund, king of the Gepides; and in consequence of this act of youthful heroism, the Lombards unanimously solicited that his father would admit him to take his seat at the royal feast which was kept in celebration of the victory. But according to the custom of the country, no prince was permitted to sit at table with his father, till he had been invested with arms by a foreign sovereign. For this purpose Alboin, with 40 selected companions, visited the court of Turfund, who, according to the usual laws of hospitality, entertained even the murderer of his son. At the banquet, when Alboin occupied the seat of the youth whom he had slain, Turfund, the father, could not brook his agitation; Cunimund, his surviving son, and the Gepides who were present perceived it; and determined to be revenged. They prepared for the assault by contemptuous and reproachful language: "the Lombards," said they, "refuscal, in figure and in smell, the mares of our Sarmatian plains:" referring by this coarse allusion, to the white bands which envelops their legs. As soon as these insulting words were pronounced, the Gepides started from their tents, and Alboin, with his 40 companions, laid their hands on their swords. Turfund, however, appeased the tumult, saved the life of Alboin, and dismissed him with the bloody arms of his murdered son. On his succession to the crown, Alboin, though previously contracted to the grand-daughter of Cloris, aedile in marriage the beautiful Rosamond, the daughter of Curimund, who, upon his father's death, ascended the throne of the Gepides. His request was refused, and he prepared to obtain by force of arms the object of his wishes. With this view he engaged the support of the Avars on very lucrative conditions, and with their assistance he utterly destroyed the kingdom of the
The perfom acknowledged but mule represented 1557 fail elegant spic the town with Lagos. call St. mountain town 1562, splendid and transient as michris accomplished worked in the case of the tomb and the memory of their victorious lord. The ambitious Rofamond having procured the death of the king, A. D. 173, apered to succeed him; but neither she nor her daughter occupied the throne, which was filled by Clepho, one of the noblest chiefs, in confequence of the free suffrage of the nation. Having poisoned Helmichris by a cup of liquor which she presented to him, she was compelled to drink of the same cup by her disheartened lover, as soon as he perceived its fatal operation on himself; and the death of the one was in a few minutes succeeded by that of the other. In the character and exploits of Alboin we see savage valour combined with military talents, and a considerable degree of proficiency in the art of government. He is said to have been the inventor of several instruiments of war, that were in use long after his time. Un. Hist. vol. viii. p. 337—342. Gibbon's Hist. vol. viii. p. 117—132.

ALBOLODUY, in Geography, a small town of Murcia, in Spain, situate at the confluence of two rivers, which flow from the mountains called Los Alpujarras, between Almeria and Guadix. N. lat. 35° 5' W. long. 2° 16'.

ALBON, James D', in Biography, Marquis of Fronsac, was one of the greatest generals of the 16th century; and rose to high military eminence, in the reigns of Henry II. and Charles IX. of France. By the former he was made Marshall of France in 1547, and he was chosen to carry the collar of his order to Henry VIII. of England, who decorated him with that of the garter. He acquired great reputation in the wars of 1552 and 1554, and in 1557 he was made prisoner at the battle of St. Quintin. After the death of Henry II. he was one of the triumvirates who governed the kingdom four or five years in spite of Catherine of Medicis. He was killed in 1562, at the battle of Dreux, by a person whose confiscate estate he possessed. The Huguenots, who did not love him, used to call him "the Harquebusier of the west." He had the qualities of a soldier and a courtier; was addicted to every kind of pleasure and luxury, excelled in politeness and the amiable accomplishments, and on the day of battle was distinguished by his prudence and his courage. His daughter and heiress is said to have been poisoned by her own mother for her property. Gen. Biog.

ALBONA, in Geography, a town of Iliria, belonging to Venice, situate at the foot of a mountain, near the gulf of Carniero; 16 miles east of Rovigo. Albona is also a river of Italy, which runs into the Po, nine miles east-south-east of Lamello.

ALBONAL, a town of Spain, in the province of Grenada, six leagues east-north-east of Motril. Albors, or Alvor, a mountain of Portugal, in the province of Algarve, one league west of Lagos. In a caille on this mountain, John II., king of Portugal, died in 1495.

ALBORAK, in the Mahometan Theology, the beast on which the prophet is said to have rode in his extraordinary aerial journies. It reprefented as of an intermediate shape and fize between an asf and a mule; and many
of philosophy and physic, which are dispersed in several libraries of England. Gen. Dict.

ALBUCA, formed from alluia, white, in Botany, a genus of the becardia monogyna clads and order, of the natural order of liina or liliae, the coronae of Limnanthes, and the aphodelix of Jullieu; the characters of which are, that it has no calyx; the corolla has six oblong-oval permanent petals, the three outer spreading; and the three inner converging; the filaments have filaments shorter than the corolla; three opposite to the inner petals, linear-fusiform, complicate a little about the base, then flat, three opposite to the outer petals, thicker: authors on the former oblong, fixed to the middle tip of the filaments below the middle, uprightly on the latter, similar but effuse, or none; the pistillum has an oblong, triangular germ, style three-filded, stigma a triangular pyramid; the perianthum an oblong, obtuse, triangular, three-celled, three-valved capsule; the seeds numerous, flat, lying over each other, and widening outwards. There are eight species, of which the first five have only three filaments fertile, and the others have all the filaments fertile. 1. a. alata or tall, with interior petals glandulose and bent in at the tip, leaves subulate, channelled, convolute: flowers in April and May, and was introduced about 1780, by Muffra. Kennedy and Lee. 2. A. major, with interior petals, glandulose and bent in at the tip, leaves linear-lanceolate, flatish, flowers in May, and was introduced about 1767, by Mr. W. Malcolm. 3. A. miuor, with interior petals, glandulose and bent in at the tip, leaves linear-lanceolate, flatish, flowers in May and June, and was cultivated by Mr. Miller in 1768. 4. A. euvata, or channel-leaved, with interior petals vaulted at the tip; leaves smooth, linear-fusiform, channelled, peduncle the length of the bracteae; flowers in May, and was introduced in 1774. 5. A. spicata, or ferial-leaved, with interior petals vaulted at the tip, and leaves spiral. 6. A. fagihiata, or upright-flowered, with interior petals vaulted at the tip, leaves smooth, peduncles very long, flowers in May, and was introduced in 1774. 7. A. elisofa, with interior petals vaulted at the tip, leaves hairy-glandulose, flowers in May and June, and was introduced about 1770, by Dr. J. Fothergill. 8. A. abyssinica, A. alba of Laminar, with leaves linear, channelled, and smooth. To the above species Wildenow has added A. fuscata, with interior petals glandulose, and bent in at the tip; peduncles spreading at right angles, leaves lanceolate-linear, and obliquely bent. A. viridiflora, with interior petals like the former, scape erect flexuous, flowers hanging downwards, leaves linear-fusiform camificulate, and externally hairy. A. caudata, with petals like the last, leaves linear-lanceolate, convolute at the margin, shorter than double the scape, peduncles very long and spreading at right angles, and straight flowers. A. setosa, with petals as before, leaves linear-lanceolate and smooth, peduncles rectangularly patent and erect flowers. A. aurea, with petals and leaves like the last, peduncles very long, erect and spreading, and erect flowers. A. frorins, with interior petals vaulted at the apex, leaves linear-lanceolate, channelled, panicles spreading of the length of the woody flower, and very short bractae. All the species are brought from the Cape of Good Hope. They may be cultivated by keeping the roots in pots, filled with light earth, and sheltered under a hot-bed frame in winter, in which case they will thrive and produce flowers; but the best method is to have a border in the front of a green-house or stove, where the roots of most of the bulbous flowers may be planted in the full ground, and fermented in winter from frost; in such situations they thrive much better.
better, and flower stronger, than when kept in pots. Martin's Miller.

ALBUCASIS, in Biography, an Arabian physician and surgeon, of singular merit. At what time he lived is not precisely known; but as he defends the art of surgery, as greatly degenerated in his time, and gives proofs of the ignorance of many of his contemporaries, it is thought he could not be earlier than the middle of the 12th century; that is, about an hundred years after Avicenna, when surgery was faceiy cultivated. It appears by a MS. in the Eeal Library, (Bibl. Ar. Hist., tom. ii. p. 156,) that he died in 1166. Much of what he has left on the subject of his art, is copied from Rhaees, from Paulus Aegaeus, and other preceding writers; but there are also many original observations; and although in the present improved state of surgery, little can be learned from him, yet by those who love to see in the first drawers of improvement in science, his works will be still turned over with pleasure. He inferred on the necessity of a surgeon's being skilled in anatomy, to enable him to operate with success; he also held it to be equally necessary that he should be acquainted with the Materia Medica, or the properties of the medicines employed in curing diseases; and inveighs against those who undertake for gain the cure of diseases, of the nature and causes of which they are unacquainted. It appears from his writings, that he extracted polyphi from the nostrils, performed the operation of bronchotomy, and used a preparation similar to the lapis infernalis, as a caustic. He made great use of the actual cautery, and is extravagant in his elogia on its properties. He is the first writer who left distinct descriptions and delineations of the instruments used in surgery, and of the manner of employing them. His works, which have been translated into Latin, at first barbarous, Haller says, have passed through several editions; the most esteemed is that published 1541, under the following title:—"Medendi Methodus certa, clara, et brevis, pleraque qua ad Medicinae partes omnes, praecipue qua ad Chirurgiam recipit. liber tribus exponens." Balsfex, 1541, folio, "Cum Chirurgia Guidonis de Chauliacii." Haller has given a detailed, and pretty extended account of the subjects treated of in the volume. Vid. Bibliotheca Chirurgica, vol. i. p. 137.


ALBUGINEA Tunica Oculi, in Anatomy, has been said to be the expansion of the tendons of the four straight muscles of the eye, on the front of the fecterota. Modern anatomists, however, do not speak of a tunica albuginea; the whitecaps of part of the eye-ball being owing to the colour of the tunica conjunctiva, where it covers the front of the fecterota. See CONJUNCTIVA.

ALBUGINEA Tunica Testis, one of the coats of the testis, which is white and strong, and closely invests its glandular structure.

ALBUGINUS is applied by some, to denote the aqueous humour of the eye.

ALBUGUS, or ALBUM oculi, the same with albuginea, or the white of the eye.

ALBUS, in Surgery, otherwise called LEUCOMA, is a whitish opaque speck, on the transparent part of the eye. It is denominated by popular writers, a tear, film, bire, pearl, dragon, &c. The transmigration of the rays of light through the cornea being obstructed by this density of its coat, is followed by a partial or total blindness, according to the extent of the disease. There are different stages and causes of the albigo, accompanied with more or less inflamm-
mation. The cure will be difficult in proportion to the degree of opacity, and the concomitant circumstances. Sometimes it entirely baffles the skill of the surgeon; and at other times, it disappears without any attention.

When the disease is accompanied with much active inflammation, leeches should be applied on the temples or under the eye. If a superficial turgid blood-vesse be observed going into the affected part, and keeping up the disorder, it may be safely divided by the point of a lancet. But when there is no inflammation, and especially, if there be a fluid interposed between the anterior membranes of the corne, lightly stimulating applications should be employed; such as a dream of electric effluvia, drawn from a wooden point; or the vapour of warm camphorated spirits, or oil of turpentine; or a composition of pulvified sugar, aloes, and finely levigated glasses, blown through a quill. Great caution, however, should be observed in the use of these remedies; for, by injudicious management, the eye may be much aggravated, and even rendered incurable.

Some persons advise us to excite the absorbents of the eye by collyria of alum, nitrated silver, vitriolated zinc, vitriolated copper, or a very weak solution of mucritated mercury; accompanied with repeated small doses of calomel and cinchona; but it too frequently happens that more harm than good is done by strong irritating applications to fo tender an organ. The cutting of an inlie in the arms, or a feto in the neck of the patient, has been also recommended in albigo; although we think their efficacy is very problematical.

It has been supposed that TOBIST's blindness, mentioned in the second chapter of that apocryphal book, was the disease of which we have here treated. Vide Tobist's Lecnumata Differt. med. diiideit. Prof. Mauchard, &e. Tuming. 1748; in Haller, Diph. Chirurg. vol. i. p. 366, 440.

ALBUHANAZ-IBUN-HAILOR, philosopher, physician, and allogaster, at Fes, in Barbary, phisicia in several of their kings, died of the plague in 1415, and left a treatise on the cure of that disease. Dey. Dict. Hist. vol. i. p. 73.

ALBULA, in Ancient Geography, a town of Mauritania, in Africa.

ALBUL, in the Linnean System of Ichthyology, a species of SALMO. It is also the name of a species of MUGIL, with the anterior dorsal-fin quadriradiated, the albula Bakamenis of Catech, and the lesser silver-rayed magil of Brown (Jam.), with the anterior dorsal-fin composed of four rays. It is found in America.

ALBULA Indica, the name of a small fish, resembling a herring, caught about the shores of the East-Indies, and called by the Dutch, the Wit-fish. Ray.

ALBULA nubilis, of Mullighby and Ray, the Lavanet Salmo of the Linnean system, and the Gwiniad of the British Zoology.

ALBULA, is also the name given by some writers to the Lanceolus Cyprinus of the Linnean system, and the Dace of English writers.

ALBULA is also the name of a species of NERITA, called mammilla, in the Linnean system of Zoology.

ALBULA, is also a name given by some naturalists, to mineral waters of the luminous kind, ending with an atstringent quality, and of use in wounds.

ALBULUS, in the Linnean system of Zoology, a species of Turba, with an imperforate smooth shell, and spires rotenuated and frirated; found, rarely, in the deep seas of Greenland.

ALBULUS, in Antiquity, denotes a white table, or register, in which the names of magistrates, public transactions, &c. were to be inscribed or entered.

Hence
Hence we meet with *album postorius*, *album decorum*, *album judicium*, &c.

*Album Decorum* was the register of the Decuriones, called also *matricularis Decorum*.

*Album Indicum*, contained the names of those persons of the decurio who at certain times performed the office of judges.

*Album Postorius* was a roll of the names of all actions, and the names of such judges as were appointed by the prator for certain causes.

*Album Senatorium* contained a list of the names of senators, first introduced by Augustus, and renewed yearly.

The high-priest entered the chief transactions of each year into an album, or table, which was hung up in his house for the public use.

*Album*, among Chemists, is used for white lead, popularly called *ceruta*.

*Album* is also used, among Alchemists, for a tincture pretended to transmute metals.

*Album*, in Ancient Geography, a promontory of Palestine, to the north-west of Upper Galilee, south of Tyre, and near Alexandria.

It was also the epithet of a promontory of Africa, situated in the limits of Heraclea or Ghibaltar, East of Amelasia, well of, Mount Abila, and opposite to Mellaria, on the coast of Spain.

*Album*, in Literary History, is used to denote a kind of table, or pocket-book, wherein the men of letters with whom a person has conversed, inscribe their names, with some sentence or motto.

This is called by divers names and titles, as *album amicorum*, *repertorium amicorum*, &c.

The famous Alcicnon Sydney, being in Denmark, was by the university of Copenhagen presented with their *album*, whereupon he wrote these words:

"Manus lice inimica tyrannis
Enfe petit placidum sub libertate quietem."

*Album* is also applied, in Pharmacy, as a title, or epithet, of divers compound medicines. Thus we meet with *unguentum album con convorum*, &c.

*Album Graecum*, dogs white dung, a medicinal drug, formerly used with honey, to cleanse and destroy, chiefly in inflammations of the throat; and for the most part outwardly, as a plaster; but, as Dr. Quincy observes, seldom to any great purpose. See Neumann's Works, p. 385.

Some speak of its use internally, in the angina, and other inflammations; as also in the dyer's trade, colic, &c. and to prevent burns from rising into blisters.

Medicines of this kind have long since sunk into disuse.

*Album graecum* is in much request among the leather-dressers, for softening down the leather after the application of lime.

*Album nigrum* is used, among Medical Writers, for mescal, by some also called *mucicera*.

*Album oculi*, among Anatomists, denotes the tunica adusta; sometimes also called *albigo*, popularly the white of the eye.

*Albumazar*, or *Albassar*, Al Abi Mafhar, the father of Maffhar, in Biography, a celebrated Arabian philosopher and astrologer, who lived, according to some writers, in the 9th or 10th century; but, according to others, at a much earlier period. The time of his death is not mentioned in the Eusebian catalogue, but he is said to have lived to the age of 100 years; and if he died, as it is supposed, in the year 885, his birth must have been 15 years prior to the date assigned by Herbelot. Some have represented him as one of the most learned astronomers of his age. He wrote an astrological work, intitled, "De magnis conjunctionibus annorum revolutionibus, ac comum perfectionibus," printed at Venice in 1515; and "Introductio in Alphronomiam," printed in 1480. It is said, that he observed a comet above the orb of Venus. Hutton's Math. Dict. Ruffell's Apollo, vol. ii. p. 100.

*ALBUMEN*, in the Linnaean system of Zoology, a species of *Nerita*, with a convex shell, subcordated umbilicus, and a distint lobe. It is found very rarely at the Cape of Good Hope, and on the shores of the islands of Nicobar and the Moluccas.

*Albumen*, Albuminous matter. *Albumen*. Fr.—This word, which in the Latin language whence it is borrowed, signifies the white of an egg, is at present introduced into the modern chemical nomenclature, as the name of a peculiar substance, which, though existing in the greatest purity and abundance in the white of eggs, is to be found in various natural compounds, both of animal and vegetable origin.

Pure albumen is a fluid of a somewhat viscous consistence, perfectly soluble in pure water at the common temperature; but when exposed to a heat above 153° Fah. it coagulates, and is then no longer soluble in water.

Animal albumen, in its purest natural state, constitutes the white of all birds' eggs, and the serum of blood: the vitreous and crystalline humours of the eye, the liquor that fills the abdominal cavities in cases of dropsy, and the fluid contents of the lymphatic vessels also contain a considerable portion of this substance. In the vegetable kingdom, it is found principally in the tetrasyphonous or cruciferous plants, in the farinaceous seeds, and in the young succulent shoots of trees and shrubs.

*Albumen*, Animal, has a slight sublimate taste, and never fails to turn the blue colour of syrup of violets green, thus indicating the presence of diglucosidated or carbonated alkali. When heated to about 153° Fah. a number of white fibres begin to make their appearance, and these rapidly increasing, the whole mass is in a short time converted into a white opake concrete solid, considerably elastic, and of a smooth compact fracture. By exposure to a dry heat, not exceeding that of boiling water, the coagulated albumen loses the greatest part of its moisture, shrinks in consequence in its volume, becomes hard, transparent, and very similar to horn; and when broken, exhibits a bright polished surface, and vitreous fracture. The application of a stronger heat destroys the equilibrium of its elementary parts, and produces the diglucosidation of ammonical gas, of carbonated ammonia, of a fictitious empyreumatic oil, and sulphurated hydrogen; there remains behind in the retort a spungy coal, from which may be obtained by lixiviation, muriat, phosphiat, and carbonat of soda.

Liquid albumen is completely soluble in fresh distilled water, but if this liquid be charged with atmospheric air, the mass upon mixture becomes in some measure turbid, and a flocculent precipitate is by degrees deposited. The action of acids, more especially of the three mineral ones, causes an immediate coagulation, and the same effect is produced by all the metallic salts. Caustic alkalis, on the contrary, hold albumen, whether liquid or coagulated, in permanent solution. The addition of lime water occasions a precipitation, but the substance thus deposited, being phosphiat of lime, shews that this is not so much a chemical action on the albumen itself, as a decomposition of the phosphiat of soda which it contains.

There has been a considerable diversity of opinion among chemists respecting the cause of the coagulation which is observed to take place in liquid albumen. Scheele, in his admirable essay on milk, attributes it to a combination with caloric; this is effected in the simplest way by the direct
addition of heat; and during the process, there does not appear to be any increase or diminution of weight. In further confirmation of this method of accounting for the fact, the following ingenious experiments were invented by the Benedick chemists. Having mixed one part of white of egg with four parts of water, he divided the mass into two equal parts, and added to one a solution of caustic alkali, and to the other the same quantity of carbonated alkali; the liquor, in both cases, remained perfectly clear; then, upon dropping into the first a little muriatic acid, an immediate coagulation took place, while a like quantity of acid produced no effect on the latter solution. This is accounted for by Scheele in the following manner. By the combination of acid with caustic alkali, the heat given out is absorbed by the albumen which thus coagulates, but when the acid is added to the carbonated alkali, the whole of the caloric is taken up by the diffused carbonic acid, and in consequence no coagulation is the result.

According to Fourcroy, the coagulation of albumen is owing to an absorption of oxygen, and the facts which appear to him to prove this are the following: If the red oxide of mercury is triturated with albumen, it is reduced to the state of black oxide, at the same time that the albumen becomes opake, thick, and in some degree coagulated. The white of a fresh laid egg is incapable of being reduced by boiling to so firm a consistence as that of an egg which has been kept several days.

On the other hand, Carradori has shown that albumen is coagulable by heat without the access of air, and even that when this effect takes place in oxygen gas, there is not the smallest portion of air absorbed.

It was the opinion of Bucquet, that albumen is a kind of natural soap, and that its coagulation by acids was merely owing to their combination with the soda which it contains.

These differences between chemists of acknowledged ability, founded also upon undisputed facts, appear to arise from a mistaken necessity of considering coagulation as the constant effect of some one uniform cause, when a little consideration cannot fail of convincing us of the very equivoal nature of this phenomenon. Albumen certainly concretes by the mere action of heat unaided by any other substance; and this is probably owing in part to the fixation of caloric, and in part to the disengagement of sulphurated hydrogen, as is manifest from the tarnishing of silver, and the blackening of acetic lead; by the white of a newly boiled egg; that the extraction of sulphurated hydrogen is a necessary concomitant in most cases of the coagulation of albumen, is obvious also from certain other facts: thus coagulated albumen is soluble in a very dilute acid, and upon the addition of a few drops of a more concentrated one, is immediately precipitated, at the same time that a strong smell of sulphurated hydrogen is manifested. Again, nitrate of silver instantly coagulates albumen, and black breaks at the same time begin to appear, owing to the formation of hydroslphuret of silver. The coagulation produced by the red oxide of mercury may be occasioned by the absorption of oxygen; it indeed the blackness of the mercury is not rather produced by combination with sulphurated hydrogen; and this is the more probable, as even metallic mercury undergoes a similar change. The thickening produced by metallic fusis, is neither caused by the mere communication of heat nor of oxygen, since the coagulum is an imprerfcte combination of the albumen with the metallic oxide. In like manner a coagulation is formed by the combination of albumen with tannin, which has also a specific chemical action. Lastly, pure alcohol will coagulate albumen, probably by the mere abstraction of the water necessary to its liquidity, since the curd thus obtained is resoluble in water, without any remarkable change of properties.

Besides the general effect of acids on albumen, some of them produce peculiar changes which require notice. By concentrated sulphuric acid it is blackened and charred, exalting at the same time a nauseous odour; while, by the same acid diluted, it is merely coagulated and preferred from further change. Muriatic acid gives a violet tinge to the coagulum, and by long contact effects a partial decomposition, so far as to become saturated with ammonia. Nitrous acid, at the temperature of about 70° Fahr., causes a plentiful diffuseness of acetic gas; if further heated, a quantity of prussic acid is formed; and this change is immediately rendered sensible, by the peculiar odour of this acid, similar to that of bitter almonds; this is succeeded by the separation of carbonic acid and carbonated hydrogen; and as soon as this change comes on, the residue in the retort is found to contract of little less than water, covered with a lemon-coloured fat oil, and holding in solution oxalic acid, which may be afterwards separated by crystallization. If dry caustic potash or soda be triturated with albumen, either liquid or solid, ammoniacal gas is set at liberty; and the calcination of the residue yields a prussicated alkali, capable of producing a blue precipitate with the salts of iron.

The neutral fats appear to have little or no action, except that of preferring the albumen from putrefaction.

By spontaneous decomposition in the open air, albumen pales rapidly, and probably without first becoming acid, into the putrid fermentation; in this state it exhales a fetid odour, assumes a brown colour, gives out ammonia, and remains a considerable time before the decomposition is completed.


Albume, Vegetable. The discovery of albumen in vegetables is due to Fourcroy. This chemist having observed that the clarification of the expressed juices of the antiscorbutic plants was effected by the spontaneous coagulation of their colouring matter, at the temperature of boiling water, was induced to examine whether this property did not depend on the presence of albumen. For this purpose, having obtained the juice of two pounds of young cresses, he filtered it while cold, through blotting paper, and by this means separated the greater parts of the colouring secta; the liquor was, however, full of a bright green, but upon being exposed in a broad shallow vessel to the air, at a temperature of about 80° Fahr., in two hours it became turbid and depotted a greenish matter, becoming itself almost colourless; in this state it was exposed to the heat of boiling water, and in a few minutes there separated a large quantity of whitish flocculent matter. Another part of the same clarified liquor being exposed to the air, deposited at the end of two days a similar coagulum; and the same effect was produced on a third portion by the addition of sulphuric acid. The substance thus obtained being first repeatedly washed in cold water, exhibited all the properties of animal albumen. It was easily and quickly dissolved by any of the alkalies; it experienced no change in boiling water, except that of becoming more solid; it converted the purple juice of malows to green, and by distillation, yielded a notable quantity of ammonia; when
when exposed with a little water to a warm air, it swelled considerably, exuded a fetid ammoniacal odour, and gave all the usual signs of active putrefaction; hence explaining the reason of the rank disagreeable smell that characterises the spontaneous decomposition of all the cruciform plants. When dried, by pressure between two pieces of paper, it exhibited a considerable degree of ductility and transparence, like glue.

Albumen was afterwards found in the roots of various vegetables, especially of the Rumex-patentia; also in wheat and the farinaceous seeds; and in general in all the green and succulent parts of plants. The acid pulps of fruits are totally defective of this sub stance, but abound with jelly; and it is the opinion of Fourcroy, that in all these cases there is a conversion of albumen into jelly, by the gradual evolution of the acid, and consequent fixation of oxygen. Diet. Method. Art. Albumine Vegetal. Fourcroy Syst. des Comp. Chimiq. vol. viii.

ALBINEA Fons, or Albule aque, in Ancient Geography, a fountain and small river in the country of the Sabines, west of the Tiber. It was famous for its sulphurous waters, which occasioned baths to be erected near them, mentioned by Suetonius, and Hyginus the goddes of health to be worshipped there.

ALBUNELAS, in Geography, a town of Spain, in the province of Grenada, four leagues east of Alhama.

ALBUOLA, a town of the kingdom of Naples, in the province of Bafficatta, eight miles south of Potenza.

ALBUQUERQUE, a town of Spain, in the province of Estremadura, on the frontiers of Portugal, situate on an eminence, and defended by a strong castle. It has a considerable trade of wool and woollen manufactures. N. lat. 38° 52'. W. long. 6° 6'.

ALBUQUERQUE, Alphonso de, in Biography, a Portuguese governor of the Indies, contributed more than any other to extend the territories and to establish the power of the court of Portugal in that country. The first exploit which he performed, after being appointed governor, was the reduction of Calicut, which he attacked at once by land and sea, with such fury, that he soon became master of the town, which he burnt; and of the fortresses, which he demolished. As soon as he recovered from an accidental injury which he received on this occasion, he proceeded against Goa, and took it. This city, in 1559, became the residence of the governor, and the seat of an archbishop and primate of the Indies. His next object was, Malacca, which he attacked by sea and land, took by storm, and delivered to the pillage of the Portuguese soldiers. The clear fifth reserved for the king, amounted in value to 200,000 pieces of gold. The last enterprise of any moment in which he was engaged, was the siege and capture of Ormuz. He had formed other great projects, which, however, he did not live to execute. One of these regarded the revival of the Indian trade by way of Alexandria, in which he knew the Venetians would have affiicted the Turks, or any other persons, for their own emolument. He proposed, therefore, to the emperor of Ethiopia, that for his own security, he should divert the channel of the Nile, by cutting a piaffic for it into the Arabian sea before it reached Egypt; and by so doing, he would have rendered the greatest part of Egypt uninhabitable; and at the same time made it impracticable to renew the old mode of transporting East-India commodities from the Red Sea to Alexandria, which was the object he had principally in view.

Another project was to transport 300 horses from the isle of Ormuz to the opposite coast of Arabia, and thus to plunder the tomb of Mahomet at Mecca, which he conceived would be beneficial in a variety of respects, and chiefly in refilling the trade of the coast of the lands of the Turks and other Mahometan nations. But death prevented the accomplishment of his various purposes; for after his return to Goa, he was seized with a delirium which in a few days proved fatal; so that he died, Dec, 10, 1513, at the age of 63. He was called by the Mahometans, Albarbkerque Malandy, because he was born at Mehdia in Africa; but, by the Portuguese, he was justly denominated Albarbkerque the Great. He was the ablest statesman, and the most consummate general they ever had in India, and left their affairs in the best situation; and yet he performed his numerous exploits with a very incomprehensible force. With 30 ships he took Calicut; with 21 he became master of Goa; with 23 he surprized Malacca; and he had no more than 22 in his expedition against Ormuz. His funeral was performed with great solemnity, and his body interred in a chapel built by him at Goa, and dedicated to the blessed Virgin, which chapel was much enlarged by his son, Alphonso Albarbkerque, who lived to the age of 80, and wrote a large work of Memoirs, in which he recorded his father's actions.

He studied the disposition of the people among whom he lived, and conformed in outward pomp and magnificence on public days to the habits of the Indians; though in his private mode of living, he was strict and abstemious. In exacting the dues of the crown, he was severe; but as to his personal fortune, he had scarcely any thing which he could call his own. His officers were his children, to whose instruction he was as attentive as the most affectionate parent is to the education of his sons. Whilst he overlooked trivial faults, he punished treachery or neglect of duty with inexorable severity. He was liberal in bountiful recompense and applause on those officers who distinguished themselves by any great actions; at the same time he was not only strict as to his own, but would not permit others to commend them. It was a maxim which he often repeated, "that he was afraid of nothing but flattery;" and it was observed, that he never preferred any who attempted to gain his favour in that way. Some of the Portuguese historians have observed, that the vanity of his predecessor Almeida, made him affect the state of a prince when the Portuguese power was very imperfectly established; whereas the modesty of Albarbkerque was most conspicuous when his victories left him nothing to fear, and when the greatest princes of the east sent ambassadors to solicit his friendship. Albarbkerque, however, was actuated by boundless ambition; and his extravagant desire of extending the dominions of Portugal, made him regardles of the measures which he adopted for this purpose. In private life, he was a man of the strictest honour; but in his public character, liable to just reproach and censure. After serving his prince and country with singular zeal and success, he had the misfortune to die in disgrace. His ambition, authority, and strict regard to justice, had raised enemies, who were afileous in their endeavours to prejudice the king against him; and as he had solicited with a view to the preservation of Goa, the grant of it, together with the title of a duchy, as a reward for his services, this was made a pretext for exciting and increasing the jealousy of the king: and thus, before his death, he was displaced from the office of governor, and another person appointed in his room. When Albarbkerque heard of this appointment, he is said to have exclaimed: "I incurred the hatred of men by my love for the king, and am disgraced by him through his propensity for other men. To the grave, unhappy old man! it is time thou wentest there; to the grave!" His letter to the king,
ALB

king, recommending his natural son to his favour, cloths with these words: "I say nothing of the ladies; they will speak for themselves, and for n.c." Mod. Un. Hist. vol. vol. p. 43-50.

Albuquerque Coelho, Edward, marquis of Inhão, count of Ferumambu in Brazil, and gentleman of the chamber to Philip IV, king of Portugal, was distinguished by his valour in the Portuguese army, against the Dutch at Bafin. He wrote a "Journal of the War," from the year 1628, which was printed at Madrid, in 1631, and 1634. He died at Madrid, in 1658. Gen. Biog.

Alb., or Albian coach, a whitish brown, or a mixt yellow, attaining to red and white. Skinner derives the word, in that sense, from the Latin, album, white; and the Italian, burma, from bruno, brown.

Alburnum, in Phytology, denotes the white, soft sublimature that lies between the inner bark and the wood of trees, composed of layers of the former, which have not attained the solidity of the latter. In this state, dealers in timber call it the sap.

Alburnum, in the Limnean system of Zoology, a species of Alycyonum, white, very ramose, attenuated, and subdivided, with terminal tubulous pores. It is found in the Indian sea.

Alburnus, in Ichthyology, a species of the Cyprinus of Limnea, and the Bleak of Ray and Pennant.

Alburnus is also a species of the Perca.

Alburnus Portus et Mon, in Ancient Geography, lay to the north of Paullum, in that part of Magna Graecia, called Lucania.

Albus Pugio, or Venus, a village of Arabia, mentioned by Strabo, and called, according to the Greek idiom, Ainos kape.

Albus fesus, in Ichthyology, the white fish, a name by which Sylvius has distinguished the fish, more usually called the capito-largulus, and seeming to be the same with the blue chub; or, as it is more generally called, the jellyfish. It is the Cyprinus fesus of the Limnean system.

Albuseira, in Geography, a small town of Algarve in Portugal, consisting of two parishes, and containing about 1000 inhabitants. It is situated on the sea-coast, between Lagos on the north, Faro to the east, and Sylves to the north. N. lat 57° W. long. 5° 21'.

Albufera is also a lake in the island of Majorca, in the Mediterranean.

Albutius, Silus (Caicus), in Biography, an orator of some celebrity at Rome, in the time of Augustus, was born at Novara, and advanced to the office of Edile; but receiving a public insult, by being dragged from the tribunal, in consequence of a judgment he pronounced, he left his native place and settled at Rome. Here he formed a friendship with the orator Munatiius Planecus, and afterwards became his rival. In his public pleadings he was too free in the use of rhetorical figures, and sunk into dif repay, so that he renounced the bar. In advanced life he returned to Novara, where he laboured under an asthma, and having delivered a discourse in justification of suicide, he starved himself to death. The elder Scaeca commends him as a man of eminent probity, not knowing how to offer or to bear an injury. From a passage in Quintilian it appears that he was the author of a treatise on rhetoric. Suetonius de Clar. Orat. c. vi. Quin. Infl. lib. ii. c. v. Gen. Diet.

Albutius, Titus, a Roman philosopher of the Epicurean sect, flourished about 120 years before Christ. Having been educated at Athens, he became so attached to Greek manners, that he preferred being regarded as a Greek rather than a Roman. According to Cicero, (De Finibus, lib. i. c. 5. and De Oratione, lib. iii. c. 43.) Sexvola often rallied him on account of this affectation. Thus, he compares his style to a kind of inlaid or mosaic work.

"Quam leptus lexibus composite. ut teferinde omnes Arte pavimento, atque emblematc vermiculato."

"How neatly are his polished words inlaid! Not nicer skill the artift has display'd,
Whole patient hand, on smooth mosaic ground,
Figures that live and speak, has firew'd around."

Whilest he was propertor of Sardinia, he celebrated a kind of triumph in his province; and this arrogance induced the senate to refuse him a "suppllication" or public thanksgiving to the gods for the honour of his exploits. On his return from Sardinia he was accused of peculation in his office, and sentenced to exile. He withdrew to Athens, and devoted his remaining days to the study of philosophy. Although he possessed some talents for oratory, they were of the inferior kind; and he had no claim on the character of a flateman or a philopher. From the foreable appellativo of "Grac.-

Albutiius, Afinius, Calpetharius and Raffle, four physicians, all lived in the time of Augustus, and acquired considerable wealth by practising medicine at Rome. Haller, Bibl. Med. vol. i. p. 166.

Albutiius, John Peter, a celebrated philosopher and physician of the 16th century, taught medicine at the University of Padua, for forty years, where he also practised, we are told, with great reputation and success, particularly in the plague which raged in that city, in the year 1577. He died February 14th, 1583, aged 75 years. His son John Francis, who succeeded him in his practice, procured him to be buried at the church of St. Ctirperg, at Milan, where a handsom monument was raised to his memory, with an inscription, at once celebrating his talents, and virtues, the piety of his son, and the gratitude of his fellow citizens.

Albuzańska, a fortres which the Czarina poisselled on the river Amur, in Mongolian Tartary, about 1200 leagues from Moscov.

ALBY. See Albi.

ALCA, in Geography, a small and very fertile island in the Caspian sea, on the coast of Tahiristan.

Alca, Aes., in Ornithology, a genus of the order of Aves, in the Limnean system, and of the Palmipes, in the distribution of Latham; the characters of which are, that the bill is without teeth, short, compressed, convex, frequently furrowed transversely; the inferior mandible is gibbous before the base; the nostrils are behind the bill; and the feet have generally three toes. This genus comprehends 12 species, viz. 1. A. toria, with four furrows on the bill, and a white line on each side running from the bill to the eyes. This is the alca of Clitius, Warmsius, and Brifon; the plautus bonor of Klein; the penguinus of Buffon; and the razor-bill, auk, or murre of Pennant, Ray, Willisby, Albinus, Edwards, and Latham; the falk of Martin, and the marbot of Sibbald. This species weighs about 22½ ounces, its length is about 18 inches, and alar breadth 27; the bill is 2 inches long and black; the grooves of the upper mandible are four, and of the lower three, and the widest of them is white; the side of the mouth is of a fine pale yellow; the head, throat, and whole under side of the body are black; the wings are of the same colour, except the tips of the lesser quill-feathers which are white; the tail consists of 12 black feathers, and is sharp pointed; the whole under side of the body is white, the legs are black. The female, says Buffon, wants the white streak between the bill and the eye, but
but its throat is white. These birds, in company with the
guillimot, appear in our seas in the beginning of February;
but do not settle in their breeding-places till they begin to
lay, about the beginning of May. When they take pos-
session of the ledges of the highest rocks that hang over the
sea, they fit close together and in rows one above another,
and form a very grotesque appearance. They lay only one
egg at a time, which is of a large size, in proportion to that
of the bird, being three inches long, either white or of a
pale sea-green, irregularly spotted with black; if this egg
be destroyed, both the muk and the guillimot will lay an-
other, and if this be taken, a third; as they make no hull, they
deposit the egg on the bare rock, poising it in such a manner
as no human art can effect, and fixing it by means of the
vigorous moisture that bedews its surface on its exclusion;
and though such multitudes of eggs are contiguous to each
other, each bird distinguishes its own. These eggs serve
as food to the inhabitants of the coasts which the birds fre-
cquent, and are procured with great hazard by perfsons let
down with ropes, held by their companions, and who for
want of flable footing, are precipitated down the rocks and
perish together. These birds are found in the northern
gu of America, Europe, and Asia. They come to breed
on the Ferroe islands, along the west of England, and on
the isle of Wight, where they add to the multitude of sea-
fowl that inhabit the great rocks, called the Needles. Their
winter residence is not positively ascertained. As they cannot
remain on the sea in that season, and never appear on shore,
nor retire to southern climates, Edwards supposes that
they pass the winter in the caverns of rocks, which open under
water, but rise internally as much above the level of the
water as to admit a recce, and here, as he apprehends, they
remain torpid, and live upon their abundant fat. The pace of
this bird is heavy and sluggish; and its ordinary posture is
that of swimming or floating on the water, or lying stretched
on the rocks or on the ice.

John. Will. and Ray, aca undulate of Bruna. Muller,
and black-billed aunt of Pennant and Latham, has its bill
smooth and compressed, the whole under side of the body,
and the tips of the posterior wing-quills, white, and its legs
red. This species weighs 15 ounces, its length is 15 inches
and breadth 25 inches; the bill is of the same form
with that of the preceding, but is entirely black. The
cheeks, chin and throat, are white; in all other respects it
agrees with the former species. It has been found on our
coasts in winter, when the other part has left them. It is
very common in Greenland, where it breeds on the cliffs,
feeds on marine infects and grows very fat. In winter these
birds pass the day in the hays, and in the evening retire to
the sea. The Greenlanders eat their flesh half putrid, suck
their raw fat, and clothe themselves with their skins. When
this bird is dressed with its entrails, it is esteemed by those
people a great delicacy. Some have doubted whether these
birds migrate so far southward as the Mediterranean, while
others affirm that they have been found on the coast of
Canada; and Mr. Latham says, that they are common in the
bay of Gibraltar, where they have been particularly noticed
on account of the adroitness and activity with which they
plunge into the water, and move through it in pursuit of their
prey.

The A. baltica of Brunick, with black tail and wings, is
a variety of this species.

3. A. infrequens, A major of Briffon, mergus americanus
of Cluflus, choenoapect of Mooching, goorflgl of Cluflus,
Nierebr. and Jonif. Penguin of Worm. Will. Ray, Martin,
Edwards, &c. gare of Sibb. grand pingouin of Buon,
and great aunt of Pennant and Latham, has its bill
compressed and arrowed on both sides, and has an oval spot on
each side before the eyes. Its length to the end of its toes
is three feet; the bill to the corner of the mouth is 4 inches;
part of the upper mandible is covered with short,
black, celly feathers; the head, neck, back, tail and
wings are of a glossy black, the tips of the lefter quill-
feathers white, the whole under side of the body white, and
the legs black. The wings are so small as to be useless for
flight, their length, from the tip of the longest quill-fathers
to the hip joint, being only 4 inches; and these birds are
therefore observed by fenners never to wander beyond
foundings, and by the flight of them they are able to affec-
tain the nearness of the land. They can fearlessly even walk,
and of course continue on the water, except in the time of
breeding. According to Mr. Martin, they breed on the isle
of St. Kilda, appearing there in the beginning of May and
retiring in the middle of June. They lay one egg, six inches
long, of a white colour; and if the egg be taken away, no
other is laid in the same season. Some eggs are irregularly
marked with purplish lines crossing each other, and others
are blotched black and ferruginous about the thinner end.
Mr. Macnulay, in his history of St. Kilda, p. 156, observes,
that this bird does not visit that island annually, but some-
times keeps away for several years together; and that it lays
its eggs close to the sea-mark, as it is incapable, by the
shortness of its wings, of mounting higher. Birds of this
species are said not to be numerous; they seldom appear on
the coasts of Norway. They are met with near Newfoundland
and Iceland. They do not return annually to the Ferroe
islands, and they rarely descend more to the south in the
European seas. They feed on the cyclopterus, and fuch
fish, and on the rofe-root and other plants. The skirts
are used by the Equinnaux for garments. The aca of the
Greenlanders, which is about the size of a duck, with the
back black and the belly white, and which can neither run
nor fly, is suppos’d by M. Buffon to be this bird. These
birds live in flocks at sea, and never approach the land except
in very severe cold; and in this case they are so numerous
that they cover the water like a thick dark fog. The Green-
landers drive them on the coast and catch them with the
hand, as they can neither run nor fly. At the mouth of the
Balf river they afford suifidence to the inhabitants in the
months of February and March, and their down serves to
line winter garments.

Olear. Alb. and Sibb. linda of Nierebr. and Jonif. frater-
cula of Briffon, bowger of Martin, puffinus anglicus of
Gefer, macareux of Buffon, and puffun of Pennant and
Latham; has its bill compressed, charneled on each side
with four furrows, the orbits and temples white, and its
upper eye-lid pointed. For a further account of this spe-
cies, see Buffon.

5. A. alca, auria minor of Briffon, mergus melanoleucus,
with a short sharp bill of Ray, small black and white diver
of Will and Edwards, Greenland dove or sea-turtle of Albin,
rotes of Martin’s Spitzb. and little aunt of Pennant and
Latham, has a smooth conical bill, the whole under part of
the abdomen and the tips of the posterior wing-quills white,
and the legs black. The bill is short, strong and black; the
cheeks, throat, and under side of the body white, the crown
of the head, hind part of the neck, back, tail, and wings
black, the inner covers of the wings grey, the fcparal
feathers black and white; the legs and feet covered with dirty
greenish white feathers; the webs black. The size of the bird,
from which this description was taken by Pennant, was not
superior to that of a blackbird. Mr. Edwards describes
another
another varying very little from this, which he makes differ only in size; the head and neck are wholly black, and the inner covert of the wings heron with a dirty white. Conrad mentions two varieties, viz., A. cambilis, or white of Brummick, and the A. with a red breast. This species inhabits America and Europe, especially in the arctic sea, is found sometimes among fragments of ice, about nine inches long, as to the disposition of its legs, neck, food, and manners resembling the other species, but more capable of walking, laying twie blow fish eggs, laying swiftly, and becoming fat in stormy weather, in consequence of the small fish that are brought within its reach; whilst at rest on the water or swimming, it is perpetually dipping its bill in the water. In Greenland it is called the ice-bird.

6. A. Labradortis, or labrador an of Pennant and Latham, has a keel-shaped bill, its lower mandible angulated, the inner nostrils covered with an opaque membrane. The bill is narrow, the upper mandible of a dark red colour, the lower whitish, spotted with black, the temples dull white, the throat, wings, and short tail of a dark colour: and the legs red. It is about 12 inches long, and found in the country of Labrador.

7. A. eolophus, or crested ank of Pennant and Latham, has its bill somewhat ascending, conoidal, crimson-coloured, white at the tip, with a furrow running on each side of the lower mandible from the throat, and a crested front. It is about the size of the thrush, 12 inches long, and found in the islands adjacent to Japan, and in Bird island, situated between America and the northern part of Asia, in the day sawning on the sea, and at night in the rabbit holes of the shore and the cliffs of rocks.

8. A. titraula, or dusky ank of Pennant and Latham, has an ascending bill conoid, of a dingy brown colour, the lower mandible triangular, and the front somewhat crested. It is 11 inches long, and found in the sea of Kamtchatka, on the sea by day, and in the night concealed in the rabbit holes, caves and fissures of rocks, where it forms its nest; it walks and flies very indifferently, feeds crested, swims swiftly on the water, and dives well.

9. A. ptilaola, or percoletank of Pennant and Latham, has its bill subovate, compressed and crimson-coloured, with a single furrow in each mandible, with a white spot in the middle of the upper eye-lid and below the eye. The head and upper part of the body are dusky, the lower whitish, varied with black edges; from the remote corner of each eye a tuft of white feathers hangs down the neck; the tail is very short, the legs of a dirty yellow, and the membrane connecting the toes brown. This species is about the size of the little ank, is found in the sea that lies between the northern parts of Asia and America, sometimes by day in flocks swimming on the water, though not very far from land, unless driven out by storms, and in the night harbouiring in the crevices of rocks. About the middle of June they lay upon the rock or sand a single egg, about the size of that of a hen, of a dirty white or yellowish colour, spotted with brown, which is esteemed good. These birds, like others of the same clafs, are stupid, and are mostly taken by the natives, who place themselves in the evening among the rocks, dried in garments of fur with large open sleeves, into which the birds fly for shelter as the night comes on, and thus they become an easy prey. They sometimes at sea mistake a ship for a rooiling-place, and thus warn navigators of their being near the land at the accout of night, or on the approach of storms.

10. A. Giribata, macareux of Kamtchata of Buffon, or tufted ank of Pennant and Latham, is entirely black, has four furrows in its bill, the sides of the head, the space about the eyes, and the corner of the throat white, and a yellowish longitudinal tuft from the eye-brows to the nape. This tuft is white near the head, and afterwards of a buff-yellow; the bill and legs are crimson. It resembles the puffin in its appearance and manners, but is somewhat larger, being about 18 inches long; swimming about for whole days in the sea, where it dives well, and occasionally flies swiftly, but never departing far from the rocks and islands; and feeding on shrimps, crabs, and shell-fish, which it forces from the rocks with its strong bill; in the night it comes to shore, burrows about a yard deep under ground, and makes a nest with feathers and sea-weed, in which it lodges with its mate, being monogamous. It lays one egg in May or June, which is fit to be eaten and used for food, but the flesh of the bird is hard and infipid. This species inhabits the shores of Kamtchata, the Kurile islands, and those that lie between Kamtchata and America. The young women of Kamtchata form an ornament of the glutton's skin, in the shape of a crescent, which they suspend behind each ear, resembling the tufts of this bird; and a prentice of this kind from a lover to his mistress is in high estimation. The bills mixed with those of the common puffin, and the hairs of the feal, were formerly regarded by these people as a powerful amulet: they are now used as an appendage to their dref, and the skins of the birds are fewed together as garments. This bird is called by the natives, monichagatha, or mishagachi, and igilma.

11. A. alca, or ancient ank of Pennant and Latham, has a black bill white at the base, covered with down, a small whitish cret on each side of the head, and another long white one on the neck. The crown of the head and throat are black; the back, wings, and tail are fuliginous. This species is somewhat larger than the little ank, being almost 11 inches long, and is found near Kamtchata, and the Kurile islands.

12. A. pygmaea, or pygmy ank of Pennant and Latham, has a black bill, the crown of the head, neck, back, wings, tail, and feet of a dusky colour, the throat and breast grey, the abdomen dirty white. The bill is furrowed on the back and slightly bent at the ends. This species is less than the little ank, or seven inches long, is found in large flocks about Bird islands, between the northern parts of Asia and America. See Linnæus by Gmelin, Buffon, Pennant, and Latham.

ALCAEBUS,
ALCABUS, in Classical Biography, a famous Greek lyric poet, was born at Mytilene in the island of Lesbos, and finished in the 44th Olympiad, about 664 years before Christ, and was contemporary with Sappho, to whom it is said he was affectionately attached. A verse, insinuating his passion to Sappho, with her answer, is preserved by Aristotle, (Rh. lib. i. c. 9.), thus translated:

Alcæus.—"I sail to Sappho with impart,
But fear locks up the secret in my heart."

Sappho.—"Thy down-call looks, repulse, and timid air,
Too plain the nature of thy with declare;
If lawless, wild, inordinate desire,
Did not with thoughts inspire thy bosom fire,
Thy tongue and eyes, by innocence made bold,
Ere now the secret of thy soul had told."

The invention of lyric poetry is some attributed to Alcæus, and it seems to be implied by Horace (Od. xxxii., lib. i.), unless he only intimates that he invented the harp, or lisp. From him, however, the lyric measure, called "the Alcaic verse," derived its name. He was no less a votary of Mars than of love and the muses. He fiercely asserted the liberty of his country against the tyrants who usurped dominion, and particularly against Pittacus; and took up arms in its defence. But his courage failed him in the day of battle, and he attempted to save himself by flight, when his party was defeated, but was taken prisoner by Pittacus, who generously granted him both his life and liberty. He was afterwards sentenced to exile; but what was the issue of his conflicts, and how and where his life terminated, history does not inform us. Horace seems to intimate, that he became a confir. His poetical talents have never been disputed. His poems, of which only a few fragments now remain, collected by Næsæus, H. Stephens, and Uranus, were written in the Attic dialect, and in the measure of his own invention. The subjects of them were very various, sometimes aatory and bacchanalian, but more generally grave and poetical. They are described by Horace in the following verses:

"Et te sonantem plenius aureo,
Alceo, plectro dura navis,
Dura fuge mala, dura bellis!
Utque sacro signo silento
Miratur umbra diece: fed magis
Pugna, et exactos tyrannos
Dentum humanae bitit aure vulgus."

Od. xiii. i. ii.

"Alcæus strikes the golden strings,
And feeds, and war, and exile sings:
Thus while they strike the various lyre,
The ghosts of the sacred sounds admire;
But when Alcæus lifts the strain,
To deeds of war and tyrants slain,
In thicker crowds the shadowy throng,
Drink deeper down the martial song."

Francis.


There were other ancient poets of this name (see Fabr. Bib. Græc. n. 246.) such as an Athenian tragic poet, who is said by some to have been the

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first composer of tragedies; and who, according to Suidas, was different from Alcæus, the son of Myrissus, a comic poet, the fifth author of the ancient comedy. One of his pieces, intitled Psiphos, was produced in his dispute with Aristophanes in the fourth year of the 97th Olympiad. Plutarch (in Flamin. Oper. tom. i. p. 373.) mentions another Alcæus, who lived in the 145th Olympiad, A. U. C. 555. B. C. 190, who ridiculed Philip, king of Macedon, on account of the battle which Titus Flaminus gained over him in Thessaly. An Alcæus of Meleager also lived in the time of Vergil and Titus, of whose epigrams some are preferred in the Anthology. One of these is supposed to have figured a singular kind of death for his handwriting, which was the punishment said to have been inflicted by means of a radius, or the fish called a mullet, on adulterers, and referred to by Juvenal, Sat. x. v. 317. p. 295. Ed. Cumari.

"quidam moccus et mugillus introit," and also in the testace of Catullus, epig. 51. ad Aureliam:

"Ah tum te miserum, malique fati
Quem aequos pedibus, patente porta,
Perspectis phante, mugiliaque."!

"Ah wretched thou, and born to unlucky fate,
Who art dancer'd by the insatiate gate!
If once, alas! the jealous husband come,
The radish or the sea-fish is thy doom?"

ALCÆUS, in Mythology, the son of Pericles and Andromeda, the father of Amphitryon, the supposed father of Hercules; hence called Alcides.

ALCAIUS, in Geography, a high and fertile mountain of Africa, in the kingdom of Fez, about 12 leagues from the capital. It is inhabited by many rich and powerful peasants.

ALCAICS, in Ancient Poetry, a name common to several kinds of verses; so called from the poet Alcæus, the inventor of them.

The first species of alcaics consists of five feet, of which the first may be either spondee, or iambic; the second, is an iambic; the third, a long syllable; the fourth a dactyl; and the fifth, a dactyl, or amphimachic, as thefe of Horace.

"Omnis eodem cognitor, omnium
Versatur una, serius, ocius,
Sors exitura."

The second species of alcaics consists of two dactyls, and two trochees; as,

"Exilium impositura cymba."!

Besides these two kinds of verses, which are properly called dactylis alcaics, there is a third sort, called simply alcaic; wherein the first is an epitrese, the second and third are choriambics, and the fourth a bacchius; as,

"Cur timet fla | vum Tiberim | tangere? cur | olivum ?"

ALCAIC Odes, consists of four strophes, each of which contains four verses: the two first are alcaic verses of the first kind; the third an iambic diameter hypercatalectic, i.e. of four feet and a long syllable; as,

"Sors exitura, et nas in externum."!

The fourth is an alcaic of the second kind—The entire alcaic strophe is as follows:

"Omnis eodem cognitor, omnium
Versatur una, serius, ocius
Sors exitura, et nas in externum
Exilium impositura cymba."
The following is also of this species which Hieracum call
" Non poffidentem multa vocaveris
Rebe beatum: reftius occupat
Nomen beat, qui deorum
Muneribus faipienter uti," &c.—Od. ix. lib. iv.

ALCAID, in matters of Polity, an officer of justice
among the Moors, Spaniards, and Portuguese.
The word is also written alcalde, alcald, and alcaicd: sometimes also alvido.
It is originally Arabic, compounded of the particle al,
and the verb had, or akal, to rule, govern, administer.
The emperor of Morocco's court confinls chiefly of seven
or eight alcalds, his devoted slaves.
The alcald, or governor of a city or castle in Barbary,
hath sovereign jurisdiction in civil and criminal concerns;
and all fines and punishments are inflicted at his pleasure.

In some places the alcalds are much the same with the
emperor's tax-gatherers.
Alcaicd, among the Spaniards, &c. is a kind of inferior
judge, or minister of justice, who takes cognizance of cases
in the first instance, and answers in good measure to the
French procure, and an English justice of peace.

They had also their alcald of the shires, who took cognis-
ance of cases of whoredom and adulterv. This officer
was otherwise called alcald of honour. Du-Cange.

ALCALA de los Gazules, in Geography, a very ancient
town of Spain in Seville, situated on a mountain, and
surrounded by a fertile plain, 10 miles east-north-east from
Medina Sidonia.
ALCALA de Guadaira, a small town of Spain in Seville, on
the river Guadaira, two leagues south-east from Seville.
N. lat. 37° 22'. W. long. 5° 56'.
ALCALA de Henares, formerly Complutum, a town of
Spain, in New Castile, situated on the river Henares, in
a beautiful plain, and clothed with well-built houses, which
form handsome streets, and which are disposed in a kind of
oval figure. N. lat. 40° 35'. W. long. 4° 20'. It is sur-
rounded by piazzas, where the tradesmen keep their shops,
which are well supplied with a variety of goods. The ad-
joining land, watered by the Henares, is fertile and well
cultivated, and yields plenty of grain, good mustard wine,
and excellent melons. Near the town is a spring, the wa-
ter of which is preferred, on account of its peculiar purity,
for the king's use, and conveyed to Madrid. This town
belongs to the archbishop of Toledo. It has a collegiate
church, and a celebrated university, which was restored in
1494, by Cardinal Ximenes; and in the church belonging to
it this Cardinal was buried. This university possessed a very
considerable library, and many curious manuscripts. Go-
nex says, that they cost 4000 aurei, and that among them
were seven of the Hebrew Bible. Here, it is probable,
were deposited, the Greek manuscripts used for the Complu-
tenian edition of the Greek Testament. Professor Molden-
hawer went to Alcala, in 1784, with a view of discovering
thee manuscripts; but, to his extreme astonishment, he found
that about 35 years before that time, a very illiterate libra-
rian, who wanted room for some new books, sold the ancient
vellum manuscripts to one Toro, who dealt in fire-works,
as materials for making rockets. Martinez, a Greek schol-
lar, as soon as he heard of this outrage, hastened to save
thee treasures from destruction; but they were actually de-
stroyed, except a few scattered leaves, which are now pre-
erved in the library. It is added, as a circumstance of
aggravation, that the number of manuscripts was very con-
 siderable. However, as rockets are not made of vellum, a
learned writer confesses himself with the reflection, that the
manuscripts were written on paper, and therefore of no
great antiquity. Michaelis's Intro. to the New Test. by

ALCALA real, a town of Spain in Cordova, lies in a
hilly country, but produces fine fruits and good wine. It
is 12 leagues south-east from Cordova. N. lat. 37° 18'.
W. long. 4° 15'.
ALCALA del Rio, a town of Spain in Seville, on the
Guadalquivir, two leagues above Seville.
ALCALS and ALCALIZATUM. See ALCAI and
ALCALIZATION.

ALCAMENES, in Biography, a satirical, the scholar of
ALCAMO, in Geography, a considerable town of Sicily in the
valley of Mazara, about 20 miles south-west from Palermo.
It is situated on high ground, in a fine open cultivated country,
and well sheltered by large woods of olive trees. The num-
ber of inhabitants is about 8,500. It derives its name from
Adalcarn, the caliph's lieutenant, who, in 827, conquered
Sicily, and who erected a fortress in Monte Bonifati; but
Frederick of Swabia, having dispossessed the Saracens,
destroyed the fort, and erected the borough of Alcam on the
foot of the mountain. Having passed through several Spa-
nish families, it now belongs to the duke of Femandi-
na, heir to the possessions of Toledo duke of Alba. The
church is adorned with some good pictures by Pietro Novello,
commonly called the Raphael of Sicily; and with alto-
reliefs of great merit by Gagini. The streets of the town
command a superb view: the belt land in the vicinity is
famous for corn, the next fort is planted with vines, and the
woof soil is cultivated with myrtle-leaved fennel, the leaves
and flowers of which are dined and pulverized, and exported
in bags, for the purpose of tanning fine leather. N. lat. 38° 2'.

ALCANDRO, a town of Spain in Old Castile, situate
on the Ebro; four leagues from Calahorra.

ALCANI, or ALCAN, a town of Africa in Egypt, on
the western branch of the Nile, 30 miles N. N. W. of Cairo.

ALCANITZ, or ALCANIS, a town of Spain in Aragon,
on the river Guadaloupe, and the frontiers of Catalonio,
15 leagues south-east from Saragossa. It was formerly the
capital of the Moors, but now belongs to the order of Cal-
latrava. It has a collegiate church and a fortres, and is
surrounded with gardens and fruit-trees. A fountain in
this town throws up water through 42 pipes. N. lat. 41°
10'. W. long. 0° 10'.

ALCANIZOS, a town of Spain in Leon, on the fron-
tiers of Portugal, four leagues west from Zamora.

ALCANN, or ALKANNA, in Commerce, by the Turks
called knab, a dying dung, brought from Egypt and the
Levant, being the leaves of a plant called Riquium Egy-
tium, the Egyptian privet, or the Lawsonia inermis of the
Linnaean system. The tree is also called elhanna, tamar-
hendi, poutaletis of Rhud, and grows in the East Indies,
as Malabar and Ceylon, in Egypt, and also in Cyprus, and
in all parts of Syria. The colours drawn from these leaves
are either red or yellow, adapted to the mode of preparing
it; yellow, when steeped in common water; and red, when
infused in vinegar or alum water. The people of Cairo
make a considerable traffic of these leaves, which they re-
duce to a powder, called archenda, much used by the women
to dye their nails, hands, hair, and other parts of the body
of a golden yellow hue. They apply it also for the same
purpose to the mantles and tiles of their houses. This

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custom amongst the oriental nations is very ancient, and has generally prevailed. This powder has been also used as an astringent, for the purpose of drying ulcers of the gums, and for removing the fetid smell of the feet; and many other virtues are ascribed to it by Rumphius. It is seldom met with in the shops, but may be used without injury. The root of the Anacampsis tinctoria is substituted for it, principally for giving a red colour to tinctures, decoctions, and ointments. Murray, Mat. Med. vol. ii. p. 112. 119.

From the berries of Alcanna an oil is extracted of a very agreeable smell, and which has been of some use in physic, as a calmer, called oil of Cypris, a name which is sometimes also given to the plant. Phil. Trans. abr. x. pt. ii. p. 741.

ALCANTARA, in Geography, a small but strongly fortified town of Spain in Estremadura, situated in a fertile country on the banks of the river Tagus. It takes its name, which signifies a stone-bridge, from an old bridge, erected in the time of the emperor Trajan over the Tagus, at the expense of several Lusitanian nations. This bridge was 200 feet high, 570 in length and 28 broad; and on account of the bridge the Moors built the city. A chapel hewn out of a rock at the entrance of the bridge, was dedicated by the ancient Pagans to Trajan, and by the Christians to St. Julian. It was taken from the Moors in 1214, by Alphonso IX. king of Castile, and given to the knights of Calatrava, who afterwards assumed the name of Alcántara. In April 1706, it was taken by the Portuguese and the earl of Galloway, and retaken by the French in the November following. It is 45 leagues west-south-west from Madrid, and 38 west from Toledo. N. lat. 39° 32'. W. long. 7° 12'.

ALCANTARA, or Alcantarilla, a town of Spain in Andalusia, near the Guadalquivir, five leagues from Sevilla.

ALCANTARA, a district of Portugal, about a league from Lisbon. On a hill in this district there is a remarkable mine of faltpetre.

ALCANTARA, one of the most confiderable rivers of Sicily, rises on the north side of mount Etna, and marks out the boundary of the mountain for about 60 miles. In many places its course has been interrupted by the eruptions of the volcano; and in others, its current, which is very rapid, has worn down the solid lava to the depth of 50 or 60 feet. Its rise is attributed to the melting of the snows on the mountain; as its waters resemble by their whitish colour those that run from the glaciers amongst the Alps. Byrdone's Tour, vol. i. p. 119.

ALCANTARA, Order of, an ancient military order of Spain, which took its name from the city above-mentioned. The princiue year of its institution is not settled among antiquaries. The knights of Alcántara make the same vows as those of Calatrava, and are only distinguished from them by this, that the crofs fleur de lis, which they bear over a large white cloak, is of a green colour: they poftes 37 commandaries.

By the terms of the surrender of Alcántara to this order, it was stipulated, that there should be a confraternity between the two orders, with the same practice and observances in both; and that the order of Alcántara should be subject to be visited by the grand-master of Calatrava. But the former conformed themselves from this engagement, on pretence that their grand-master had not been called to the election of that of Calatrava, as had been likewise stipulated in the articles.

After the expulsion of the Moors, and the taking of Granada, the sovereign of the order of Alcántara, and that of Calatrava, was settled in the town of Càstille, by Ferdinand and Isabella.

In 1542, the knights of Alcántara sued for leave to marry; which was granted them. The history of this order was chiefly taken up in expeditions against the Moors, and broils with their neighbours. See Calatrava.

ALCARAZ, in Geography, a town of Spain, in the canton of la Mancha in New Castile, situated on an eminence near the river Guardamera, in a very fertile country, defended by a strong castle, and remarkable for an ancient aqueduct. It is famous for a breed of small horses that are very fleet and strong. It is ten leagues north of the capital of Andalusia, 40 south of Cuenca, and 55 south-west of Madrid. N. lat. 39° 28'. W. long. 2° 3'.

ALCARIZ, a town of Spain, in the province of Galicia, on the river Arnoia, eight miles south of Orense.

ALCARAZAS, in Pottery, are kind of vessels used in Spain for cooling water. What distinguishes them essentially from other kinds of earthen ware is their porosity: this is so considerable as to allow the liquor to ooze slowly through, and stand in small drops on the outside; hence there is a constant evaporation from their surface when immersed in a current of warm air, by which means the water remaining in the jar continues at a temperature much lower than that of the atmosphere.

These vessels appear to have been first introduced into Spain by the Saracens; and their use has since been extended into all the Spanish colonies in America and India. They have also been known from time immemorial in China, Hindoostan, Peru, Arabia, Egypt, and Syria.

The most celebrated manufacture of this kind in Spain, is at Anduxar in Andalusia, the hell earth for the purpose being found in the neighbourhood, on the bank of the little river Tamuzor. This is a kind of white clay, containing principally of carbonated lime, with about 30 per cent. of flint, and a little aluminiun, and oxid of iron.

The process of the manufacture is very simple, and is as follows. The fresh dug earth is first dried in the sun till it becomes pulverizable; and when beaten to powder, it is passed through a fine sieve, in order to separate with accuracy all the flints and coarse sand that may be mixed with it: being then put into a wooden or copper vessel with water, it is tempered by hand to the confidence of a soft uniform paste. In this state it continues twelve hours, and is then spread upon bricks, previously covered with wood ashes, till the appearance of cracks upon its surface, owing to the draining off of part of the moisture.

This first preparation being completed, the tempered earth is weighed and put into a broad shallow vessel, where it is trodden with the naked feet, and at the same time mixed with salt, in the proportion of seven pounds for every 150 of earth, to be made into large jars, and half the above quantity of salt for the manufacture of jugs and other small articles. The reason of this difference is obvious: the greater the vessel is, the thicker must its sides be, to give it the necessary strength; but its porosity would be diminished in the same proportion, a greater quantity of soluble matter must be mixed with the earth. After this a sufficient mass of the material being put on a potter's wheel, it is shaped in the usual manner into a jar or other vessel: being then gradually dried, it is baked in a common pottery oven for 10 or 12 hours, according to the heat, care being taken that the salt be not so far decomposed as to become insoluble in water.

There is scarcely a house in Spain where Alcarazas are not in constant use. Being filled with water, and exposed for a few hours to a current of air, a very small portion of the fluid is lost by evaporation, and the remainder will
have acquired a degree of coolness very grateful in that warm climate.

Estremadura possesses a manufacture of large red jars called Bacares, which are applied to the same purposes as the true Alcarrazas, but are much inferior, being less porous, and communicating to the water an unpleasant earthy taste.

Another use to which these vessels are applied in Portugal, is that of moistening stuff or tobacco. For this purpose, the jar being filled with snuff is placed in water, which, altering through its fides very slowly, gives in a few hours, to the inclosed powder, the requisite humidity.

The editor of the Journal de Pluqique is of opinion that the mixture of fossil meal with common potter's earth might afford an useful sublimate both for the Alcarrazas and the filtering flones. The fossil meal is that earth of which the flating bricks of Ticany are made; and which, according to the testimony of Pliny and Strabo, was anciently found in great plentiy, both in Asia and Spain. To the proposed use, however, of this sublimate, the earthy flavour which it would communicate to the water is a radical objection.

ALCASSAR, Louis Dr, in Biogrophy, a Spanish Jesuit, was born at Seville in 1551, and was at first a teacher of philosophy, and afterwards of divinity at Cordova and at Seville for above 20 years. He directed for so many years his chief attention to the study of the book of Revelation, and his work on this subject, intitled “Vestigia Arcana fenfus in Apocalypsis,” is much esteemed among the Catholicks, and has been printed several times. Grotius is said to have borrowed many of his ideas from this book. His works, comprehending a commentary on such parts of the Old Testament as had been subject to the Apocalyptic, and including a treatise “On Sacred Weights and Measures,” and another “On Bad Physicians,” form two folio volumes. Heydeger in his “Mysticum Babylonis magnus,” published at Leyden in 1687, has examined some of his apocalyptic hypotheses. Alcazar died at Seville, June 16, 1673, at the age of 60 years. Gen. Dict.

ALCASSAR, or Alcázar, in Geography, formerly Caifar al Cahir, a city of Africa, on the coast of Barbary, in the kingdom of Fez. It is said to have been built by Jacob Almanzar, about the year 1376, during his war with Spain, and intended as a depot for the immense forces that were collected for this purpose. It was formerly the residence of the Alcazar government, and a town of good trade, till the Portuguese made themselves masters of it in 1458; but though it was not long in their possession, it gradually sank into decay, and lies now in a ruinous condition. Its situation is so low, that it is overflowed with water in the winter, and molested with heat in summer. The floors of this place are so numerous and so familiar, that they occupy the tops of the houses and mosques without molestation; the inhabitants esteem them sacred birds, and thinking it sinful to disturb them. The bahaw of Tetuan now appoints a governor for this town, which is the laft of his dominions towards Morocco. In the vicinity of this town, there is a ridge of mountains running towards Tetuan, whose inhabitants are a band of robbers, whom it was not possible to restrain or extirpate, as they find an inaccessible shelter in their mountainous forests. It was near this town, on the river Elma-haffan, that a famous battle was fought in 1578, when three kings were slain, viz. Abdemelech king of Morocco, Mahomet the usurper, and Sebastian king of Portugal. The Portuguese indulge a fanciful notion, that Sebastian was transported to an enchanted island, and they expect his return to establish their power, and to render their kingdom the first on the globe. This city, N. lat. 35° 15'. W. long. 12° 35', is called Alcafar quibririm, or the great castle, to distinguish it from the alcazar of the next article.

ALCASSAR Zeguir, or Ceguer, q. d. the little palace, a town or fortress of Africa, in the kingdom of Fez, between Tangiers and Ceuta. It was taken by Alphonso king of Portugal, in 1458, but soon after abandoned to the Moors. It lies on the south-side of the straits of Gibraltar, and a shallow bay between two points of land, affords anchorage for ships, and on the west of this are two long narrow islands, parallel to the coast. N. lat. 35° 48'. W. long. 5° 36'.

ALCASSAR de Guete, a town of Spain, in New Castile, almost between Cuenza and Guete, with which it forms nearly a triangle. N. lat. 42° 10'. W. long. 2° 16'.

ALCASSAR do Sol, a town of Portugal, in Estremadura, six leagues from the sea, on the confines of Alentejo, guarded by a castle, which is said to be impregnable. The salt-work in this town yields very fine white salt, and gives it its name. Of the rushes that are gathered in the adjoining fields, mats are made for exportation. N. lat. 38° 18'. W. long. 9° 10'.

ALCATILE, a town of India in the Carnatic, west of Madras.

ALCA TRASES, an island in the Pacific Ocean, about 21 leagues from Acapulco; and half a league from the continent. N. lat. 15° 50'. W. long. 102° 30'.

ALCATRAZ, in Ornithology, a name given by the Spaniards, also by Fernandez, Hernandez, and Nieenburg, to the pelican of Mexico; and erroneously by Callius and others after him, to the Indian horn-bill, or Bucerotis Hydrocorax.

ALCAVALA, in Polities, a tax upon transferrable property imposed by the Spanish government. It was at first 10, afterwards 14, and at present it is only 6 per cent. upon the sale of every sort of property, whether movable or immovable; and it is repeated every time the property is sold. The levying of this tax requires a multitude of revenue-officers, sufficient to guard the transportation of goods, not only from one province to another, but from one shop to another. It subjects not only the dealers in some sorts of goods, but those in all sorts; every farmer, every manufacturer, every merchant and shopkeeper; to the continual visits and examinations of the tax-gatherers. Through the greater part of the country, in which a tax of this kind is established, nothing can be produced for distant sale. The produce of every part of the country must be proportioned to the consumption of the neighbourhood. It is to the Aleavala accordingly, that Ularitz imputes the ruin of the manufactures of Spain. He might have imputed it to lievise, says a very competent judge, the declension of agriculture; as it is imposed not only upon manufactures, but upon the rude produce of the land.

In the kingdom of Naples, there is a similar tax of three per cent, upon the value of all contracts, and consequently upon that of all contracts for sale. This is both lighter than the Spanish tax, and the greater part of towns and parishes is allowed to pay a composition in lieu of it; which composition is levied in any mode they please, and generally so as to give no interruption to the interior commerce of the place. The Neapolitan tax is therefore not nearly so ruinous as the Spanish one. Smith's Wealth of Nations, vol. iii. p. 381.

ALCAUDET, in Geography, a beautiful town of Spain, in the province of Andaula and district of Cordova, between
between Cordova and Jaen. N. lat. 37° 35'. W. long. 3° 26'.

ALCAZAR, or ALCAZAR, ANDREW, of Guadalaxara, in New Calilfe, in Biography, a celebrated physician of the 16th century, published in 1775 at Salamanca, "Chirurgia libris sex, in quibus multis antiquiorum et recentiorum fubfPicura loca hactenus non declarata interpretatur," fol. In the fifth book, he treats, "De pudendraga vel mentagra villicen, valgo, morbo Gallico." He contends this disease was known to the antients, and cites Pliny, and various other writers in proof of this position; but admits, that in certain stages of the disease, it is only to be cured by mercurial injection. See a full account of this work, and a refutation of his opinion of the antiquity of the lues, in Altrae's treatise, De Morbis Venereal, vol. ii. p. 792.

ALCE, in Ancient Geography, a town of Peloponnesus, mentioned by Plutarch, in his life of Cleomenes. Alce is also, according to Livy, a town of Spain, belonging to the Celtiberians. It is likewise a name given by Pliny to a river of Bithynia.

ALCE, in Ornithology, a species of ank of Alca.

ALCE, in Zoology, a species of Ceratæ. See Elek.

ALCEA, HOLLYHOCK, Make of Tournefort, in Botany, a genus of the monadelphi polyandra class and order, of the natural order of columnifera, and the makeuse of Jussieu. Its characters are, that the calyx is double, each one-leaved; the outer cut half way into five parts, permanent and very spreading; the inner cut half-way into five parts, larger and permanent; the corolla consists of five, obcordate emarginate, spreading petals, coalescing at their bases; the stamina are filaments unifying into a sort of five-sided cylinder at bottom, loose at top, and inserted into the corolla; the anthers almost kidney-shaped; the pistillum has a germin orbiculate, Ryle cylindric, short, fliform about 25, testaceous, of the length of the style; the pericarpium is composed of many joined arils, in a ring round a columnar flatted receptacle, parting and opening on the inside; the seed is one, flat, kidney shaped in each aril. Schreber and Jussieu join this genus to Althea.

Professor Martyn enumerates three, and Gmelin five species; viz. 1. A. rosea, common hollyhock, with leaves lanceo-rectangular. 2. A. fruticosa, with cordated, rough, crested, angular leaves, and stem below ramose. 3. A. acutiflora, with numerous cordated roundulo-lobeated leaves, spike flowers, and a stem thick and very small. 4. A. coromandulina, with subfircular crested obtuse quinquevernum subfibrilose leaves, and solitary flowers. The A. Africana or African H. of Martyn, is described as having leaves three-lobed crested, flowers solitary axillary, both calyces tipped. 5. A. fruticosa, fig-liced H. with inferior palmated seven-loved crested leaves, the superior halfed. Linnaeus doubts, whether the first and fifth species, above enumerated, are distinct, and seems to think that the half is a variety of the first. But Prof. Martyn observes, that the difference in the form of their leaves always continues. Both these sorts were cultivated by Gerard in 1597. Allione says, that the hollyhock grows wild in the county of Nice. The colour of the flowers is accidental, and the double flowers are only varieties proceeding from culture. The various colours that have been noticed are white, pink, red, deep-red, blackish-red, purple, yellow, and flesh colour. Prof. Martyn informs us, that he has seen some plants with variegated flowers, raised from seeds which were brought from China. Although these varieties of double hollyhocks are not constant, yet the greatest number of plants, produced by seeds carefully sown from the most double flowers, will arise nearly the same with the plants from which they were taken, provided they are kept separate from single or bad coloured flowers.

The first species grows naturally in China, the fifth in India, and has also been brought from Madras. Linnaeus refers it to Siberia. A dwarf sort, with beautiful double variegated flowers, has been for some years in great esteem, under the name of Chinese hollyhock. These plants, though natives of warm countries, are sufficiently hardy to thrive in the open air in England, and have contributed much to the ornament of gardens towards the close of summer. In large gardens, they make a fine appearance; a succession of spikes arising on the same stem for two months. The flowers on the lower part of the spike appear in July, and new flowers will be produced till the end of September. In good ground the spikes will often rise to the height of eight or nine feet, and near six feet of each will be garnished with flowers. The African hollyhock is a native of the eastern shore of Africa; and the alcea indica of Burm. ind. p. 149, agrees with this in having three-lobed creased leaves; but differs from it in having the flowers terminating and yellow; with the inner calyx five-cleft. The hollyhocks are propagated by seeds, which should be saved from plants of the best colours, and of the most double flowers, and they should be sown in a bed of light earth, about the middle of April, and covered about half an inch deep. When the plants have put out six or eight leaves, they should be transplanted into nursery-beds, at a foot distance from each other, watering them till they have taken root, and afterwards keeping them clean from weeds till October, when they should be removed to the situation where they are to remain.

ALCEA. See Hibiscus and Malva.

ALCEA Floridana. See Gondonia.

ALCEAE, in Entomology, a species of Papilio plebejus, with divaricated wings, of brown and cinereous colour, the primores marked with points, and the posterior cinereous underneath; found in the southern parts of Ruffia.

ALCEDO, king-fisher, in Ornithology, a genus of the order of Picæ. The characters are, that the bill is threelfided, thick, bright, long and pointed; the tongue is fleshy, very short, flat and sharp, and the feet are for the most part gryffory. The species enumerated by Gmelin, besides several varieties, amount to 41. These birds are dispersed over the whole globe; inhabiting chiefly the water and living upon fish, which they catch with surprising alacrity and swallow whole, rejecting afterwards the unpalatable parts; though their wings are short, they fly swiftly; their prevailing colour is sky-blue; their nostrils are small, and generally covered. 1. A. crystagallus, A. ambobennis cristafl of Seba, Hipidea philippensis cristafl of Belling, vinh of Buffon, and crested king-fisher of Latham, is short tailed, sky-blue above, rufous beneath, and has its crest undulated with black. The bill is black, crested greenish, on each side of the neck is a bluish white beginning from the eye; the shoulders, the upper covers of the wings, and the margins of the wing-feathers and tail-feathers, and the whole of the intermediate tail-feathers are violet, the chin rufous, the throat rufous, and white, the wing-feathers, brown, and the legs with the claws reddish. It is about five inches long, and found in Ambony and the Philippine isles. The hipidea indica crystallus, or A. crystallus elegantissima pectra of Seba is a variety. 2. A. indus, spotted king-fisher of Edwards and Latham, is short tailed, greenish, yellow beneath, with a nebulous pectoral falcin. The bill is black, the line above and below the eyes yellow, the wings punctated with white, and the feet red. It is seven inches long, and found in Guiana. 3. A. hipidea, hipidea of Geíner, Ray, Okl,
Olm. Albr. and Briff., aleyon of Genn. and Albr., martinspacher or alcyon of Buffon, king-fisher of Albin. and Will. European king-fisher of Pennant, and common king-fisher of Latham, is short-tailed, sky-blue above, fulvous below, and its traps are rufous. This bird is seven inches long and 1½ broad, of a clumsy shape, the head and bill being very large, and the legs disproportionately small; the bill is two inches long, the upper mandible black, and the lower yellow; and the iris is red; but the colours of its plumage amply compensate for the meagreness of its form. The crown of the head, and the coverts of the wings are of a deep blackish green, spotted with bright azure; the scapular feathers and coverts of the tail are also of a repellant azure; the whole under-side of the body is orange-coloured, and a broad mark of the same pafs from the bill beyond the eye; beyond that is a large white spot; the tail is short, and conflits of 

feathers of a rich deep blue; the feet are of a redish yellow; the three lower joints of the outermost toe adhere to the middle toe, and the inner toe adhears to it by one joint.

The king-fisher frequents the banks of rivers, and feeds

on fish. It takes its prey somewhat in the manner of the

oPrey, balancing itself at a certain distance over the water

for some time, and then darting below the surface brings

the prey up in its feet. When it remains fixed in the

air, in a bright day, the plumage exhibits a most beautiful

variety of the most dazzling and brilliant colours. To this

attitude the ancients refer; for Thucydides, quoting by

Athenaeus (Deipnoi. lib. ix. p. 388) calls these birds 'πελαγός οὐράκτωρ',

the halcyons with expanded wings. It makes its nest in

holes in the sides of the cliffs, which it scoops to the depth

of three feet, and lays from five to nine eggs, of a most

beautiful semi-transparent white. The nest is very fortid,

on account of the refuse of fish with which the young are fed.

It begins to hatch its young early in the season; and

excludes the first brood in the beginning of April. Whilst

the female is thus employed, the male is unquestioning in

his attendance, supplying his mate with fish in such abundance

that she is found at this season plump and fat. He ceases

to twitter at this time, and enters the nest as quietly and

privately as possible. The young are hatched in about 20

days, but differ both in size and beauty. The ancients

believed that the halcyons were so amorous, that the male died

in the embrace, and Aristotle affirms (lib. ix. c. i. 14.)

that they begin to breed when only four months old. The species

now described is the ηικίον, or mate halcyon of Aris.

(Hift. An. 892. 105.) which he describes with a precision,

to which he is not accustomed. His description of the bird is

followed by that of the nest; which, he says, resembled

those confections that are formed by the sea-water; that it

was like the long-necked gourd, hollow within and having

a narrow entrance, so that if it overtop the water could not

enter; that it refilled any violence from iron, but might

be broken with a blow of the hand; and that it was com-

posed of the bones of the Bream, or sea-needle. The nest

was called halcyonyon, and medical virtues were ascribed to

it. Mr. Pennant inclines to credit part at least of Arisotle's

account, as to the form of the nest, which agrees with the

description given of it by Count Zinzanni; and as to the ma-

terials of which it is composed, and the fragments of bones

and scales of fish that were found in it, he adds, that those

who will not allow this to be a bird that frequents the sea

should recollect that Arisotle made his observations in a

milder climate than our's, and yet from Zinzanni we learn

that even in Italy the king-fisher breeds in May on banks of

streams that are near the sea, and the ancient Statirite allows,
(Hift. An. 1050.) that the halcyon sometimes ascended rivers posibly to breed. M. Buffon is of opinion,

that the halcyonia, of which Pliny, (lib. XXII. 8.),

reckons four kinds, and which some have supposed to be

the nells of king-fishers, are only clusters of sea-weeds; and

with regard to the nells of Tonquin and China, which, are

eclined such deficiencies, and have also been attributed to

the halcyon, they are the indispensible productions of the

pedant swallow. On the precious foundation laid by

Aristotle, very absurd and incredible tales have been formed by

frequent writers; and the poets, indulging the powers of

imagination have added many fictions to the account of the

philosopher. Accordingly the nest has been represented as a

floating one:

"Incedat halcyone pendentibus aquarum nidos." 

Ovid. Met. lib. xi.

It was therefore necessary to place it in a tranquil sea, and

to supply the bird with charms to allay the fury of a tor-

bulent element, during the season of incubation. At
	
time it had, therefore, control over the seas and the

winds:

"X' ηικίον ροφίν ρηχ η ηυμικια τωρι θαλάσσων

Το τι τιναν, τον γενος, ις εισχειδε φωκα κινημα."

Αλκοκ. Γρακκας: Νηρες τα τι μαλακας

Ομυλας θαλασσων."—THEOCRIT. Idyll. viii. 1. 57.

"May halcyons smooth the waves, and calm the seas, and

the rough south-east dish sink to a breeze;

Halcyons of all the birds that haunt the main,

most lov'd and honour'd by the Nereid train."

PANKES.

These birds were equally favourites with Thetis, as well as the

Nereids:

"Dilecte Thetidi Haleynes."

VIRG. Georg. i. 390.

As if to their influence these deities owed a repose in

the midst of the storms of winter, and by their means were

secured from those winds that disturb their submarine retreats,

and agitated even the plants at the bottom of the ocean.

Such are the accounts given by the Roman and Sicilian poets.

Aristotle and Pliny tell us, that this bird is most common in

the seas of Sicily; that it fat only a few days, and those in

the depth of winter; and during that period the mariner

might fall in full security; for which reason they were filled

Halevon-days. By the poets the king-fisher was also made a

bird of song. Virgil ranks it with the limnet:

"Litoraue Alcyones resonant, Aecanitha deum." 

Georg. iii. 338.

And Silius Italicus celebrates its music, and its floating nest:

"Cum sonat halcyones cantu, nidificoque matantes

Immota gelat, foptis fluibitibus, unda." 

lib. xiv, 275.

But these poets have probably transferred to this species the

powers of song that belonged to the alleco of the philo-

sopher (Hift. An. 892.), which was vocal and perched upon

reeds; and which, according to his account, was the lead

of the two, but that both of them have a cyanan back.

Belon supposes the vocal alleco to be the greater reed par-

tow, tardus aurumnaceus of Linnaeus, a bird of a fine note

and converfant among reeds; but Mr. Pennant litters from

his opinion, because the colours of the latter are very plain,

and conceives that the alleco vocalis of Arisotle is one of

the loft birds of the ancients. Some have even doubted,

whether the king-fisher of the moderns and the allecon of

the ancients are the same bird. But the description of Aris-

tolte sufficiently identifies them. The allecon, says that

philosopher,
philosopher, (lib. ii. 14) is not much larger than a sparrow; its plumage is painted with blue and green, and lightly tinged with purple; these colours are not distinct, but melted together, and shining variously over the whole body, the wings and the neck; its bill is yellowish, long, and slender. The habits of these birds also resemble one another. The aleyon is solitary and pensive; and the king-fisher is almost always seen alone, and the pairing season is of short duration. The former was not only an inhabitant of the sea-shore, but haunted the banks of rivers, and the latter has also been found to seek shall-fish and large worms, that abound on the shore of the sea, and in rivulets that flow into it. Aleyon was seldom seen and rapid in its flight; it wheeled swiftly round ships, and infantly retired into its little grot on the shore. The same character belongs also to the king-fisher. The aleyon and the king-fisher have the same mode of taking their prey, by diving vertically upon it. The king-fisher is the most beautiful bird in our climates, as to the richness and luxuriance of the colours of its plumage. It has, says Buffon, all the shades of the rainbow, the brilliancy of enamel, and the glossy softness of silk; and Gellner compares the glowing yellow red, which colours the beak, to the red glare of a burning coal; and yet the king-fisher has stayed from those climates where its repulident and glowing colours would appear to the greatest advantage. There is a species that is common in all the islands of the South Sea; and Forster, in his observations in Capt. Cook's second voyage, has remarked, that its plumage is much more brilliant between the tropics than in the regions situated beyond the temperate zone, in New Zealand. In the language of the Society islands, the king-fisher is called Evora, and at Otaheite it is accounted sacred, and not allowed to be taken or killed. King-fishers were found not only at Otaheite, but in Huahine and Ulieta, and in the islands that are scattered over the South Sea, though they are more than 1500 leagues distant from any continent. These king-fishers are of a dull green, with a collar of the same about their neck. The islanders entertain a superstitious veneration for them. The chief at Ulieta intreated Capt. Cook's companions, in a very serious tone, to spare the king-fishers and herons of his island, giving permission to kill all the other birds. There are 22 species in Africa and Asia, and eight more that are known in the warm parts of America. The European king-fisher is scattered through Asia and Africa; many of those sent from China and Egypt are found to be the same with ours, and Belon has met with them in Greece and in Thrace. This bird, though it derives its origin from the hottest climates, bears the rigour of our feasons. It is seen in the winter along the brooks, diving under the ice, and emerging with its prey. The Germans have called it effovgel, or ice-bird; and it has been found even among the Tartars and Siberians. The Tartars and Ottomans use the feathers of these birds for many superfluous purposes. The former use them as love-amulets; pretending that those which float on water will induce a woman who is touched with them to fall in love with the person who thus applies it. The Ottomans take the skin, the bill and the claws of this bird, and enclose them in a purée; and whilst they prefer this amulet, they think they have no ill to fear. Credulity has admitted and reported many other familiar tales concerning the extraordinary powers and virtues of this bird; but it is needless to recite them. Its flight has the odour of balsam musk, and is unpainable food. Although these birds are found in cold as well as warm climates, they are often found dead under the ice. M. Daubenton has preferred some of them alive for several months, by feeding them every day with young fry, which is their only proper nourishment; for they reject every other kind of food; and they may be kept in rooms for some time, provided that they are placed near basins of water full of small fish. Olina describes the method of taking them; at day-break, or in the dusk of the evening, by setting a trap at the edge of the water; he adds, that they live four or five years. 4. A. alcyon, tipida belloniensis. In China, Bengal K. of Albinius, and red-headed K. of Latham; is the smallest; it has a long tail; its back is blue, its abdomen yellow, its head and rump purple, its throat and nose white. The bill and the feet are red. This bird is about the size of the last species, somewhat more than six inches long, and is found in Bengal. There is a variety called A. minor, or red-headed K. with the head and neck of an orange-red colour. 5. A. madagascariensis, tipida Ani-sala-ny or Drifil, martiuis-peeueur de Madagascar of Buffon, this K. of Latham; has a short tail, rufous body, white throat, black tail feathers; the bill and feet are red. It is five inches and a half long, and inhabits Madagascar. 6. A. superciliosa, tipida Americna viridis of Drifil, martiuis-peeueur de Madagascar of Buffon, little green or orange K. of Edwards, and supercilious K. of Latham; is green above, white below, with a green band, and yellow eyebrows. It is about six inches long, and found in America. Buffon had it from Cayenne. 7. A. aleyon, tipida crinita carolinensis of Drifil, aleyon of Ray, king-fisher of Catesby, and belted K. of Pennant and Latham; is long tailed, crested and blichi, with a white abdomen, ferruginous breast, and a white spot before and behind the eyes. There are three varieties, viz. tipida Indioecius, martiuis-peeueur de Louisiane of Buffon, or crab-catcher of Sloane; tipida Dominicus crinita of Drifil, martiuis-peeueur de St. Domingue, and jaquacati of Buffon, or American K. of Edwards; and tipida Brasiliensis crinita of Drifil, and jaquacati-siaca of Maregrage, Ray and Willughby. This species inhabits America, and seems to migrate from Hudson's Bay to Mexico, where it is eaten, though it has a rank fishy taste. It is about 13 inches long, feeds on fish, nereis in high banks, into which it penetrates in a horizontal direction, lays four white eggs, and hatches in June. 8. A. torquata. See Achalalacili. 9. A. capitis, tipida capitis bone spis of Drifil, martiuis-peeueur a gros bec of Buffon; is short-tailed, or blue, below fulvous, its breast brick-colour, and bill red. It is 14 inches long, and found at the Cape of Good Hope. 10. A. Senegalensis, tipida Senegalensis major of Drifil, A. senegalensis of Forke, martiuis-peeueur a tete grise of Buffon; is long-tailed, sky-blue, below white, with a hoary head, and coverts of the wings black. There are three other varieties, viz. A. bleue and yellow, the crab-eating K. of Latham; the A., with the head and neck ochreously white; and A. above sky-blue, below rufous-yellow, and white throat. This species inhabits Arabia and Africa, and particularly the banks of the Senegal, where they are numerous; and the name of the K. is, in the language of the country, Baboucard. The second variety is found in St. Jago and Abyssinia. 11. A. Smyrnensis, Smyrna K. of Albinius and Latham; is long-tailed, ferruginous, with green wings, tail and back. It is found near Smyrna. There are two other varieties, viz. the great Gambia K. of Edwards, found in Gambia and Madagascar, 10 inches long; and the great Bengal K. of Albinius, found in Bengal, and on the coast of Malabar; 9 and 10 inches long. 12. A. rubida, tipida ex albo et atro varia of Drifil, martiuis-peeueur pie of Buffon, black and white K. of Edwards and Latham; is short-tailed, black variegated with whitish, and below white. It is 11 inches long, and found in Asia and Africa. This bird is about the size of the Royal crow, and its cry is not unlike
that of the common cromer. 13. A. supo, nipha termiata, is, a pretty small long-browsed buffoon, Ter-
ax, of Latham, has the two tail-quills very long, at-
 chew in the middle, its body dark bluish, and its wings greenish. It is called this bird, on account of its beauty, the "Cromer of Terame; and he says, that as the feathers on
the tail are one-third longer in the male than in the female. It is 1.5 inches long, and inhabits the island of Terame.
14. A. parvula, galbana longicuda of Gwillihby, jaccarn a large quill of Buffon, swallow-tailed K. of Edwards, and peculiar jaccar of Latham, has the two intermediate tail-feathers very long, the body greenish gold, and the feet lamellar. The bill of this species is quadrangular, acumina-
ted and black, the legs are black, and plumes so far as
the eye, the head is violet brown, the throat, neck, and
inner covert of the wings are white; the two middle tail-
feathers are longer than the others by an inch: the plumage
is principally of a dull deep green, in which are distinguished
one orange and violet reflections. The female is diffi-
cult to sex from the male by the middle quills of the tail,
which is much shorter, and by its plumage being deficient
of the orange and violet reflections. These birds inhabit
the forests, live on insects, fly to great distances, and perch
on the tops of trees, go in pairs, not being so solitary and so
solitary as the other jaccarns; nor have they the same
waddle, but a cry or soft whistle, which is heard only at a
small distance, and seldom repeated. 15. A. galbana, galb-
a of Buffon, jaccarn of Maregrave, Ray, Willughby,
and Edwards, jaccarn of Buffon, green jaccar of La-
tham; has a wedge-shaped tail, body gold and green, rufous
below, and its feet lamellar. The bill is quadrangular,
two inches long, acuminate, black, with nodules ovated
at the base, deep blue irides, white chin, sometimes yellowish,
flanks, wings and plumage legs of a greenish yellow colour,
and black claws; the plumage is of a very brilliant gold-green,
with red copper reflections. The size is about that of a
lark, and its length scarcely nine inches; it inhabits the
thick forests and damp situations of Guiana and Brazil: it
is solitary, and prefers the most sequestered and obscure
coverts; it perches on the middle boughs, and remains there
along and at rest for the greater part of the day and night;
it's flight is quick, but short, it lives on insects: it has a
feebly broken waddle, which is tolerably pleasant; and Plro
says, that its flesh, though hard, is eaten in Brazil. The
jaccarns of Cayenne call this bird venenous; and the creoles
denominate it colibri des grands bois. 16. A. orientalis,
nipha India of Buffon, eastern K. of Latham, is green,
brown, rufous, head, throat, band of the eye, and tail-fea-
thers fley-blue. The bill is red; the feet and claws black.
It is four and an half inches long, and inhabits India. 17.
A. Surinamensis, Surinam K. of Latham, is short-tailed
and blue, whitish below, with a rufous breast, greenish black head,
and transfere green spots. Its bill is black, and the back
marked with black spots. It inhabits Guiana, settling in
lakes near the waters, laying five or six eggs, and living on
fishs. 18. A. purpurea, purple K. of Latham, is below
a verdous gold colour: the head, ramp, and tail, are rufous-
gold; the back and covert of the wings bluish-black, the
tail-feathers black, and the throat white; the tail and feet
are red; a purple blue stiles from behind the eyes to-
wards the back, terminated by blue. It is about the size
of the fourth species, and inhabits India. Of all the king-
fishers, M. Buffon says, this is the handomell and the richest
in colour. 19. A. corvina-capiitla, blue-headed K. of La-
tham, is of a blue-colour, rufous below, with a white throat
and blackish tail-feathers. The bill and feet are red; and
the crown of the head of a bright blue, tained with waves
of a lighter blue. It is four inches long and inhabits
Madagascar. 20. A. Bungarofir, little Indian K. of Ed-
wards, and Indian K. of Latham, is bluish-green, rufous
below, with brown tail and tail-feathers, and the head marked
transversely with blue streaks; the bill is black. It is four
and an half inches long, and inhabits Bengal. The little Indian
K. of Edwards is a variety, which instead of the rufous ocular
band of the former, has two rufous spots. 21. A. leucotyrta,
nipha Americano caceulea of Buffon; A. American or
mipsla of Nelsa, martin-catcher by her blane of Buffon,
and white-billed K. of Latham, is of a bluish-green colour,
yellowish below, with the head and neck bay-coloured, the
tail-feathers cinnereous, the tail above blue, and below cinnе-
reous. The bill is whitish. It is barely five inches long,
and inhabits America. 22. A. Brasilianus, nipha Brasil-
on, and Brasilian K. of Latham, is rufous varied, with bay
and brown, and white below, with the greater tail-fea-
thers and tail rufous, marked transversely with white spots.
The bill and eyes are black, the ocular band, feet, and
claws are brown. It is about the size of the lark, and
inhabit Brazil. Its cry, giip-giip, resembles the piling of
young turkeys. 23. A. americana, white and green K. of
Latham, is blackish green, white below, spotted with green,
and the space of the breast and throat blue. The bill is
black, a white line puffed from its base below the beak
through the occiput; the feet are red: the female has no rufous
space at the breast and throat, but the throat is white. It is
five inches long, and inhabits Cayenne. 24. A. rufa, rufous
and green K. of Latham, is green, rufous-golden below,
with a zone warded with white and black on the breast,
distinguishing the male, and wings and tail spotted with white.
It is eight inches long, and inhabits Cayenne. 25. A. ma-
oula, nipha Brasilienis novis of Buffon, matissi of Ray,
Willughby, and Buffon, Brazilian spotted K. of Latham;
itis brown spotted with yellowish, below white spotted
with brown, with yellow throat. The bill is red; the feet and
claws cinnereous. It is of the size of the fance, and inhab-
its Brazil. 26. A. Cayennensis, taparam of Buffon, Cayenne
K. of Latham, is blue, below white, with a transverse black
band below the back of the head. The upper mandible is
black, the lower red, the rump azure, the tail, and tail-
feathers with a blue margin, the feet red. This species is
numerous, solitary, lays its eggs in holes on the river-banks,
is nine and an half inches long, and inhabits Cayenne and
Guiana. The time of its incubation is September, and its
cry is, came, came. 27. A. minapella, black capped K. of
Latham, is violet-blue, below white, with the head,
neck, shoulders, and tips of the wings black, and red-dish
abdomen. The bill and feet are red. It is ten inches long,
and inhabits China. This bird is one of the most beautifull
of the king-fishers. There is a variety, viz. A. Lucia,ii,
found in the island of Luzon, black above, white below,
with a farruginous abdomen. 28. A. tuta, reputed K.
of Latham, is long-tailed, olive above, white below,
with white eye-brows and greenish-black collar. The bill is
black, with the inferior mandible white, and the feet black.
It is eight and an half inches long, and inhabits Otaheite,
where it is held fared by the inhabitants. 29. A. ve
nerata, venerated K. of Latham, is brown, pale be-
low, with a roundish tail; and the margin of the tail-fea-
thers, wing-coverts, and wing-feathers green. The bill is
black, and the feet dunce. It is nine inches long, inhabits the
friendly islands, particularly Apye, and is deemed fa-
cred. 30. A. ferae, fared K. of Latham, is dilute blue-
green, below white, with pale farruginous eye-brows, and
the tail and tail-feathers blackish. There are four other va-
rieties, viz. A. with white eye-brows, A. with head greenish
black, pale farruginous below, and on the maee; A. with black
head, blue crown, dirty yellow eye-brows, head and abdomen,
and
and blue wings and tail; and A. with a white collar. This species inhabits the Society Islands; the third variety is found in New Zealand; and the fourth, in the Philippine Islands. It is nine and an half inches long, and reckoned farred by the inhabitants. 31. A. chloropcephala, green-headed K. of Latham, is green, with a white neck and black collar, the wings and tail of a green.- The bill, under part of the tail, and feet, are blackish. It is nine inches long, and found in Bouro, one of the Mohuene islands. 32. A. ceruleus, white-collared K. of Latham, is blue, rufous below, with white eye-brows and collar. It is almost seven inches long, and inhabits India. 33. A. johnstoni, great brown K. of Latham, is eredit, olive-coloured, below white, otherwise black, with the temples and back of the head dingy white; the tail roundish, of a rufus fulvous, crossed with black waves, and white at the end. The upper mandible is black; the lower white, and black at the base; the female has no eredit. The crown of the female and the sides of the chin and neck of both sexes blackish brown; the collar of the female white, and the back olive; that of the male, at its lower part with the rump, pale green-colour, with a spot of the same in the middle of the coverts of the wings; the tail-feathers of the female greenish-brown; the exterior margin of those of the male blue, but black within, and at their tip, sometimes white at the base, yellow feet, and black claws. This bird is the largest of the kind, its length being 18 inches, and inhabits New Guinea. 34. A. maxima, great African K. of Latham, is sub-ceredit, head-black colour, pointed with white, with white throat, black neck, and ganguineous breast and abdomen. The bill is black, with linear nostrils, and the feet are very black. It is about the size of a crow, and inhabits Africa. 35. A. leucoccephala, white-headed K. of Latham, is blue-green, with its head, neck, and under surface white, and wing-quills brown. It is 12 inches long, and inhabits Java. 36. A. flavicollis, is yellowish below, with the head and back green; the bill red, and the tail blue. It inhabits the island of Ceylon, where it is called by the natives, ten-rou-joulon. This bird is peculiarly dexterous in catching its prey: when it feeds the fish in the river itارات upon it and feizes it with its bill, transports it to its nest, subrubs a day or two upon the spoil, and spends the whole time in singing. 37. A. Newtonii, New Guinea K. of Latham, is black spotted with white. 38. A. Aegyptis, Egyptian K. of Latham, is brown, with ferruginous spots, and whitish below with cinereous spots. The bill is blackish; the throat ferruginous-white; the upper coverts of the tail wholly white; the tail ash, the feet greenish, and the claws blackish. It is about the size of a crow, nests in the fycamore and palm-trees, feeds on frogs, fish, and insects, and is found in Egypt. Haffcliquifit has particularly described this bird. 39. A. grandis, great jaca-marrow of Latham, is copper-gold coloured, below ferruginous, with the head and limbs green-gold, and the feet scarl. 40. A. tridaetys, three-toed K. of Latham, is rich and brilliant in its plumage; the upper side of the head and back is of a deep lilac, the feathers of the wings are of a dull indigo, heightened by a border of vivid and shining blue that surrounds each feather; the under side of the body is white; the bill and legs are reddish. It is about four inches long, and inhabits Surinam and India, and the islands of the Indian ocean: Sonnerat found it in the island of Lucon. 41. A. feminaevelus, is short-tailed, with the hind part of the back, the tail, and the middle of the wings blue, the shoulders black, the head and breast cinereous, and the belly ferruginous. The bill and feet are vermilion. This bird is found near Yemen in Arabia, and is about a span long. Linnaeus by Gunin. Latham, Buffon.

ALCEDO vocalis, a name by which Bulleiusis, Aldrovandus, and some others have called the reed-sparrow. See the preceding article.

ALCES, in Entomology, a species of Lucanus, with exserted mandibles quadridentated at the apex. It inhabits Asia.

ALCES, in Zoology, a species of Cervus. See Ele.

ALCESTER, or Alnchester, in Geography, an ancient small town of England, in the county of Warwick, situated at the union of the rivers Aln and Arrow; the chief manufacture is needles, and the market-day Tuesday. It is 103 miles north-west of London, and near it is Ragley, a noble seat of the Marquis of Hertford.

ALCHABITUS, in Biography, an Arabian astrologer, wrote an introduction to the knowledge of the celestial influences, entitled, " Hagoge ad Magicarium Judiciorum Altorum," a Treatise on the Conjunctio of the Planets, and another "On Optics." His astrological works were translated by J. Hispalenus, and printed at Venice in 1491, with explanations by Joannes de Saxonia, and in 1521 with the correction of Antony De Pantis, physician of Tavole, in Italy. It is not known at what time Alchabitus lived. Gen. Dict.

ALCHABUR, in Geography, a town of Asia, in Diar-bekir, upon the Euphrates, in a very agreeable situation, south-east of Aleppo and south-west of Mosul. It serves as a resting-place for the caravans from Babara. N. lat. 34°. E. long. 57° 54'.

ALCHABUR is also a river of Asia, in the same province.

ALCHAMARUM, a town of Arabia, situated on a high mountain, near the river Ormannus. The access to it is narrow and difficult, that two men can guard it. The summit of the mountain is very fertile, and affords all necessary supplies to the inhabitants. This is the residence of an Arabian king.

ALCHARNI, Judah, in Biography, a celebrated Jew of the 12th century, was reckoned at the period in which he lived a great poet, and undertook to translate the comments of Maimonides on the Mishna, and his Mochr Nevochim, at the request of the Marzial doctors, who did not understand Arabic.

ALCHATA, in Ornithology, a species of Tetrao.

ALCHMILLA, Ladies' Mantle, in Botany, a genus of the tetranda monogynia class and order, of the natural order of fentifera, and rofeta of Jussieu. Its characters are, that the calyx is a one-leafed, tubulous, permanent perianthium, with edge flat, divided into eight segments; no corolla; the lamina have erect, awl-shaped, very small filaments on the edge of the calyx, the anthers roundish; the piliillum has an ovate germ, ftyle filiform, of the length of the flamina, infected at the base of the germ, stigma globular; no pericarpium, the neck of the calyx closing and never opening; the seeds are solitary, elliptic and compressed. There are four species, vis. 1. A. vulgaris, common ladies' mantle or bearfoot, with leaves lobed. This herb is frequent in meadows and pastures in England. It is perennial, and flowers in June and July. Horsey, sheep, and goats eat it. Cows are said not to be fond of it; and yet Haller, in his Iter Helveticum, informs us, that the astonishing richness of the milk in the famous dairies of the Alps, described by Schuchzer, is attributed altogether to the plenty of this plant, and that of the ribwort plantain. The whole plant is astringent. In the province of Smolundia, in Gothland, they make a tincture of the leaves, and give it in spasmotic or convulsive diseases. In an epidemic complaint of this kind, which occurred in 1754, it was found of great use. Before this period the infusion, tincture, and
extract of it had been found effectual in milder cases of a similar kind. The root is more astringent than the herb, and the virtues are communicated alike to water and spirit of wine. It does not rank among the more powerful astringents, nor does it deserve that high commendation which has been bestowed upon it in hemorrhages, diarrheas, the flux albus, and the healing of wounds. Murray Mat. Med. vol. iii. p. 153. There is a variety of this species, which is the A. minor of Hudson, and the A. alpina pubescens minor of Plukkenet, in which the leaves are more silky, smaller and whiter; and the stems less branching, and the flowers in less clusters. 2. A. alpina, cinquefoil or Alpine ladies' mantle, with digitate ferrate leaves, under silky, grows naturally on the mountains in Yorkshire, Cumberland, Wellmorland, North Wales, and the Highlands of Scotland. It is also a native of Sweden, Denmark, the Alps, and other cold parts of Europe; and is admitted into gardens on account of its elegance. It is perennial, and flowers in July. 3. A. phanerolea, with many parted leaves and item erect, is found in New Granada, by Mutis. 4. A. pentaphyllea, with leaves quinate, multilobed, smooth, grows naturally on the high Alps, as Gotheard, Furca, &c. and is only found in some few curious botanic gardens in this country. It was cultivated by Mr. Miller in 1748. These species may be propagated by parting their roots, for which the best time is Autumn. They should have a moist soil and a shady situation. When they are propagated by seeds, they should be sown in Autumn, on a shady moist border, and when the plants come up, they will only need to be kept from weeds.—Martyn's Miller. Dr. Smith (Flor. Brit. vol. i. p. 156) has added to this genus the Aphanes argentea of Linnæus.

ALCHEMIST, a person who professes ALCHEMY.

ALCHEMY, Alchimie, Fr. The subject of alchemy occupies so large a space in the humiliating history of the misapplication of brilliant talents, and the wanderings of the human understanding, as to justify and indeed demand a particular enquiry into the causes of its origin, the grounds of its continuance, and the reason of its gradual decline, and at length total retirement from public notice. Instead, therefore, of merely quoting the conceit and fantastic definition given of it by Harris. "Ars fine artes, cujus principium eit mentis, medium laborare, finis medicare," (an art without art, originating in falsehood, and proceeding through labour to bureaucracy), we shall treat of it at some length, considering first, the origin of the institution; secondly, its history; thirdly, the theory and arguments that are alleged in its support; and fourthly, the facts upon which it professes to be established.

I. The word alchemy occurs for the first time in the writings of Julius Firmicus Maternus, who lived in the fourth century, under the reign of Constantine. This, however, is rather the date of the separation between chemistry and alchemy than of the origin of either. The fact seems to be, that a considerable quantity of real chemical knowledge but abundantly mixed, as the cunnion was, with false and hypothesis, was possessed by the priests of Egypt; and by these it was communicated, mostly under a promise of secrecy, to the Alexandrian Greeks. It is probable also that as there were several orders of initiation into their sacred rites to be passed through in succession by the aspirant before he was entrusted with their highest mysteries, so there might be a similar rule observed with regard to the communication of the different subjects of the Hermetic philosophy; thus the lowest secrets might be the preparation of the commoner chemical mixtures; the next in order might be the composition of glasses and the art of dying, both of which appear, even in the time of Pliny, to have been chiefly practised in Egypt, and contain at the present day more secrets than any other of our chemical arts; the knowledge of the most efficacious medicines would be esteemed as a proof of still higher confidence; and from the love of mystery inherent in the human mind, the most valuable communications of all would be that mixture of alchemy with medical and chemical theories, which, appearing to unfold the secret connection between the great powers of nature, flattered the imagination with the hope of performing things wholly impossible to other mortals. The actual possession and exertion of much lucrative knowledge, and the reputation of still more valuable secrets, would naturally attract the notice of the credulous, the interested, and, if any such existed at that period, of the philosophers, the real disinterested enquirers after science. In process of time, as the influence of the Egyptian priesthood declined by the consequences of the Roman conquest and from other causes; when too the persons enthralled with the secrets of chemistry were considerably increased in number, and were diffused through all the great cities of the Empire, it would necessarily happen that many from choice or necessity would advance no further in the study than was immediately conducive to their profit, by the refining of metals and the preparation of chemical compounds of general demand and utility, while the more theoretical and mysterious parts of the science would remain in possession of a few. The complicated economy of the Egyptian hierarchy being broken up, and there existing no longer any acknowledged heads of the science, the distinction between chemistry and alchemy would immediately commence. The chemists, or artists in chemistry, having no other object in view than pecuniary emolument from the sale of chemical articles, would confine their attention to the improvement of the particular manufactories in which they were engaged. The theoretical chemists or alchemists, on the other hand, having in view a certain mysterious unattainable and probably unattainable object, would look with contempt on the occupations of the chemist, and would consider themselves as in possession of the only liberal part of the science; their language partly from policy and partly from the want of clear ideas on the subject, would become more and more obscure, and knaves and impostors would creep in among them who would endeavour to indemnify themselves for the ill success of their experiments by frauds and impostions on the unwary. The original difference therefore between chemistry and alchemy seems to have been that the former was a mere art contriving in the preparation of substances by known processes, while the latter proceeding from general principles, either assumed gratuitously or taken up on very inadequate proof, was always aiming through the medium of new and uncertain experiments at the discovery of those powers which were supposed to be characteristic of the sublimer parts of the Hermetic philosophy.

II. It appears certain from the uniformly concurrent testimony of ancient history, that Europe was originally indebted to Egypt for its knowledge of chemical science. This knowledge, however, was but sparingly dealt out to a few of the Greek philosophers, at the expense of much solicitation, and many years of study by the Egyptian priests, as long as that country retained its independence. Afterwards, when by the victorious expedition of Alexander, a race of Greek monarchs was placed on the throne of the Pharaohs, and the foundation of the university of Alexandria had effected a coalition between the arts of Greece and the science of Egypt, chemistry being rendered more accessible, was studied more generally and with increased ardour. The same spirit, however, which pervaded their researches into metaphysics and theology, appears to have animated
The writings of these able men raised the study of alchemy to a degree of credit which it little merited, especially among the ecclesiastics, who professed at that time almost all the learning of the age; and even a pope John XXII. was weak enough to assert in his treatise on the art of transmutation, that he himself had made two hundred ingots of gold, of the weight of an hundred pounds each. The 15th century exhibits the same combination of chemistry with alchemy, but in which it is pleasing to discover a great diminution of reserve with regard to the processes of common chemistry, which are for the most part told in sufficiently plain language by the very men who, when treating of alchemy, are utterly unintelligible. The great authors during this period are Ifac and John Itac Hollandais, George Ripley, and Bafil Valentine.

Hitherto alchemy had been confined to the sibby object of changing the baser metals into silver and gold, and, the materia medica consisting wholly of vegetable and animal preparations, there existed little or no connexion between the chemists and physicians. The prevalence, however, of the leprous and the rife and rapid progress of the venereal diseases, rendered it necessary to have recourse to more potent remedies. The Asiatic practice of physic with regard to the use of mercury was introduced with the happiest effects by Curpus; antimony found an able advocate in Bafil Valentine, whose "Curris Triumphalis Antimoni," is a curious mixture of enthusiasm and knowledge.—The credit of the Galenists began to be shaken, and chemistry, by thus associating itself with the most philosophical of the three learned professions, acquired an immense accession of abilities.

The unexpected success which attended the first medical use of chemical preparations, awakened a new hope in the minds of the alchemists; and this was no less than the discovery of a universal medicine, which should heal all disorders, and prolong the duration of human existence to an indefinite period. The great authors of this fact were Paracelcis and Van Helmont, who, by their vigorous use of opium and mercury, effected a number of important cures, impossible to the common Galenical practice of the age. About the same time flourished Henry Cornelius Agrippa, and George Agricola, the first of whom, half knave and half enthusiast, belonged decidedly to the alchemical party; but the latter, though bewildered in youth, by the false philosophy of his time, made ample amends to the cause of true science in his mature years, by his admirable treatises on metallurgy and mineralogy.

From this time we meet with few authors of reputation who wrote professedly on alchemy, though a kind of half belief in the thing still clung about even the most eminent chemists, and may be clearly traced in their writings. A bold attempt to support the falling cause was made in the beginning of the 17th century by the Rosicrucians, a secret society which originated in Germany, and attracted the attention of the rest of Europe for 25 years. By pretending however too much, even to more than the ancient chemists, when in the plenteous of their power and influence, ever arrogated to themselves, the fraternity made few converts, and speedily sunk into total oblivion. The first philosophical society, for the express purpose of improving natural and mathematical knowledge, was formed at Naples, by Bapitlta Porta in 1664; and the noble example was followed by most of the other Italian states. The liberal spirit of free inquiry then prevailing the Alman, established similar societies in England, France, and Germany: the experimental method of philosophizing was introduced by Bacon; public lectures in chemistry began to be instituted; and the principles and facts of alchemy underwent
underwent a severe examination, from the Jesuit Athanasius Kircher, which it never afterwards recovered. The most eminent chemists now abjured altogether the researches of alchemy; and it lost ground daily, as well by its own want of evidence, as by the frauds and ignorance of the cheats into whose hands it had fallen. Thus, rapidly declining, it was at length wholly lost to the view of the scientific world, and at present is rarely detected, even by the officers of public justice, to whose care itself, with its ancient associate alchemy, has been commended in all the civilized nations of Europe.

111. According to the present theory, each metal is considered as a peculiar chemical element, perfectly undecomposable by any known method, a necessary consequence of which is the utter improbability and hopelessness of all alchemical purities; since their object is the composition and decomposition of bodies which are either absolutely simple, or at least as yet incapable of further analysis. This formidable difficulty at the very outset, may well dissuade from all modern attempts at metallic transmutation; but the great fathers of chemical philosophy ought not, in common candour, to be misrepresented as fools or impostors, for it is manifestly maintaining doctrines which are only, in the present advanced state of the science, futilly attempted. In the following summary of the leading theories relative to alchemy, the reader will scarcely expect to find a perfect uniformity and consistency of the several parts with each other, especially when it is considered that they are necessarily collected from a variety of authors differing in abilities, in communicative pens, and in the periods at which they lived.

It appears to have been admitted on all hands, that the metals were compounds of metallic earth and sulphur, (by sulphur was merely understood any pure inflammable substance). This earth being supposed to exist in a larger proportion and less mixed with sulphur in mercury than in any other metal, it came in time to be commonly known by the name of mercurial earth. Gold, as being the most fixed and unchanged of the metals, was considered as an intimate combination of pure sulphur and mercurial earth, while the other metallic bodies were thought to contain, besides these two essential parts, various impurities. Of this opinion, Geber, Roger Bacon, Ripley, Homberg, &c. were fervent advocates; and it is especially to the latter of these chemists that we owe the development of this theory, together with a memorable experimental argument in its support. Having expounded regula of antimony to the action of the great burning-glass of the Duke of Orleans, he found that it increased 10th in weight, and at the same time became more fixed: a similar effect was produced by exposing mercury to a digesting heat for some days; it was converted into a red powder of greater fixity than the original mercury, had gained in weight, and upon exposure to a red heat was almost wholly volatilized and converted into mercury, except a small portion of white hard ponderous metal which remained behind. From this experiment, Homberg deduces the following conclusions: that the pure sulphur of metals is solar light; that it unites with, and increases the weight of all metals that are exposed to its action, except gold; that it gives them a greater fixity; and that, although when loosely combined with mercury it only changes it into a red powder, yet by the further action of heat a part of the mercury becomes saturated with this sulphur, and is converted into a hard fixed metal while the red is volatilized. To their experiments, important as they were supposed to be at the time of their invention, the superior accuracy of modern chemistry would object, that the gaseous products were wholly overlooked, and that the fixed metallic residue from the decomposition of the mercurial oxide, is only a proof of the original impurity of the mercury employed, since no attempt was made by a repetition of the processes to effect the fixation of the whole of the mercury. From these and similar experiments, however, the old chemists drew the inferences already mentioned; and by bearing this in mind, it is easy to discover the objects which they had in view, in each of their processes as they endeavoured to publish in intelligible language. They were supposed to be two methods of making gold, by synthesis and transmutation. The former of these was effected by the direct combination of the pure sulphur and mercurial earth; hence we see the reason of the numberless distillations and digitations, and processes of all kinds for depriving sulphur of its impurities, and bringing it to the last state of rectification or exaltation: hence also the multiplied experiments on quicksilver, in order to give it fixity in the fire: this method however was generally acknowledged to be too difficult, that few alchemists have even pretended to be able to do more than fix the mercury. The art of transmutation was carried much further: it was taken for granted that the object of Nature, in producing metals, was the formation of gold, as being the most perfect of these substances; and that the failure, in all cases, was owing solely to the interpolation of certain impurities: it was known also, that the common methods of refining depended on the separation of the precious metals from the baser ones, with which they were mixed and contaminated; the conclusion, therefore, did not seem a priori, very extravagant; that, by an improvement in the art of refining, such of the cheaper metals as appeared the most to resemble gold, might be freed from those impurities in which the whole difference between them and gold consisted. Lead, from its specific gravity, and copper, from its colour, were the principal subjects of experiment; and when it is considered that arsenic was not yet discovered to be a metal, and the amazing effects of this substance in disguising the properties of gold, instead of being surpised at the accounts of transmutations, the principal wonder is, that they are not still more numerous and supported by more unexceptionable evidence. The substance capable of effecting this extraordinary change was called the elixir, or medicine of metals, the tincture, the powder of projection or philosopher's stone, a very small portion of which was adequate to the transmutation of a very large proportion of lead or copper; and by using a greater quantity than necessary of this powder, the gold resulting from the operation acquired the property of acting itself as an elixir. Such is the simplest and most confident theory of the great art, as delivered in the writings of the best and most philosophical of the alchemists, nor when its real importance is considered in regard to chemical science and many of the arts, when too it is remembered how numerous and unexplored fources of error existed at that early period of chemical investigation in which it flourished, and the impeding theory whereby it was supported, shall we lightly rigmatize those who honestly devoted much of their time to the pursuit, with the opprobrious appellation of pertinacious folly.

IV. If we were to enter upon a minute examination of the evidence, by which the principal instances of transmuration are supported, it would extend this article beyond its due limits; the documents besides are so equivocal, and the witnesses so dubious or incompetent, that the inquiry would but ill repay the trouble; in the room of this, therefore,
Therefore, we shall lay down some general considerations, which by their agreement or disagreement with any particular case, will enable us to form a probable judgment of its truth or falsehood. Nor is this, although a summary way of treating the question, unfair or unallowed. In any system that is offered to our belief, if we can point out a fundamental error or contradiction, we may well excuse ourselves from discarding the proofs adduced in favour of detached parts. With what strength of evidence are many stories of apparitions and witchcraft supported, how generally were they believed at the time of their occurrence, and how universally are they rejected and ridiculed at present, not from any new flaw discoverable in the evidence, but from their variance with general principles and experience?

That the philosopher's stone never existed, that no metal has ever yet, by human art, been produced or decomposed, is highly probable, from the convincing proofs which have been afforded by the progress of chemical philosophy, of the fundamental errors, both in fact and theory, to which even the ablest of the alchemists were subject. All chemical knowledge was anciently made a secret of; but by the invention of printing, and the rise of a more liberal spirit of communication, it may be added also, by the superiority of modern over ancient science, all nostrums and mysteries have in a great measure disappeared, and whatever was of sufficient importance to attract general attention, has been added to the stock of general information. In the mean time, alchemy has ceased to be an object of curiosity, not because its end was mean and trivial, but because all its supposed great facts have been resolved into mistakes. The value of the precious metals, instead of diminishing has rather been increasing, the direct contrary to which would have been the case, had they been capable of being produced by any of the safer ones. The professors of alchemy have been chiefly poor, and have in many cases even offered to divulge their secret for a sum of money; that is, being in position of the art of producing gold ad infinitum, they have offered to communicate this wonderful knowledge for a few ounces of the very substance which they could manufacture by the hundred weight. Some of the alchemists in the dark ages, especially in Germany, who had the unfortunate reputation of poising the philosopher's stone, were imprisoned by the princes of the country and furnished with chemical apparatus, till they should have purchased their liberty, by producing a certain weight of gold, but not an ounce was ever procured by this method. It is remarkable too, that the most skillful and reputable of the alchemists, although they maintain the possibility of transmutation, and profess to know the method by which it is to be effected, are very far from affirming, that they have themselves actually succeeded in the attempt. Again, if from the best attested instances of gold-making, we exclude those which depend on the fabulous testimony of the alchemists themselves, or the incompetent evidence of men entirely ignorant of chemical science, we shall find the remainder reduced almost to nothing. The royal academy of sciences at Paris, during the first years of its institution, was almost overwhelmed with applications from men who professed to be able to make or deteriorate gold at pleasure; either in this respect deceiving themselves, or in the hope of deceiving their attempts on the public credulity, by the function of that learned body; many experiments were in consequence made in their presence, all of which totally failed of success. These repeated detections, like those on the subject of witchcraft, appear to have decided the opinions of philosophers respecting the falsehood of alchemy, and though the wonder of the ignorant is still occasionally called forth on both these subjects, they are no longer considered as worthy of a serious refutation.


A L C I A M E L E C H, in Botany, the Egyptian mullet. Ray.

A L C H I N D U S, James, in Biography, an Arabian physician, is supposed to have lived about the middle of the twelfth century. His work, "De Medicinarum compositione gradibus investigandis," was published with the works of Avicenna, at Venice, in folio, in 1561, and 1603.

A L C H O L L E A, a kind of food in use among the western Moors, being fishy meat, pickled, dried, boiled, and powdered.

A L C H O R N E A, in Botany, a genus of the dicotyledonous class and order of professor Martyr, and monadelphus egenia of Swartz and Gmelin, the characters of which are, that the calyx of the male is a three or five-leaved perianthium; leaflets ovate, concave, equal, coloured, and deciduous: no corolla; the laminae have eight filaments, equal, scarcely longer than the calyx, slightly ciliate at the base, anthers ovate and upright; the pistillum is a rudiment: the calyx of the female is a one-leaved, four or five-toothed perianthium, the teeth equal and small; no corolla; the pistillum has a germ twin, superior, styles two, very long and siliform, stigmas simple and acute; the pericarpium is a capsule berried, two-seeded, two-celled, two-valved; the seeds are solitary, large and oblong; there is one species, Ar. latifolia.

A L C I A T I, Andrew, in Biography, an eminent civilian, was born at Milan in 1492. Having studied the law in the university of Pavia, and in that of Bologna, he commenced the exercise of his profession at Milan in 1517, and became professor of civil law, in the university of Avignon, in 1518. Although his salary amounted to 600 crowns, and the number of his auditors was 200, he left this lucrative and honourable situation in disgust, because the city of Avignon was unable to make a regular payment of his stipend, in 1522, and refused his full profession at Milan. In 1529, he was invited by Francis I. the king of France, to promote the study of the civil law at Bourges; but impelled by avarice, he successively changed his situation to Pavia, Bologna, and Ferrara, in each of which places he had many felibars and clients, and received ample remuneration for his labours. When he was engaged by his friends for his frequent changes, he vainly interrogated them, whether they blamed the fun for revolting to enlighten all nations; or, whether, when they admired the fixed stars, they found fault with the planets. But his predominant principle was avarice: and this principle induced him to decline accepting the offer of Paul III. to quit Ferrara and settle at Rome. "Why," said he, "should I, for the uncertain and empty hope of the purple, relinquish the honours of my profession, accompanied with the possession of a rich stipend?" Francis Ferrara, Alciati returned to Pavia, and in 1550, died of a suscit, occasioned by excess of eating. He poissled, without doubt, distinguished talents, blended with a considerable degree of felicities and meanents; and he very materially contributed to the improvement of his profession, introducing a taste for polite literature, and animating that barbarous nation, which had before his time prevailed in the lectures and writings of the civilians. Erasmus beholds upon this his highest encomium: "The prais which Cicero divides between Secundus and Graffius, when
when he calls the latter the utter boul & infaid in law, and
the former the lawyer who was the most eloquent, is, by
the consent of the learned, named to Alciati." His first
work was, "An Explanation and direction of the Greek
verses which are conti. with the 1564," first published
in Italy and 4to. at Strasburg, in 1575. This was fol-
lowed by "Facsimiles of the Civil Law," "Disputationes
et Peregrination," published about the year 1577. His
next work, "De Verborum Significatione," was printed at
Rouen in 1579. Twelve and many other works on juris-
prudence, were published in 1571, in feto folio volumes.
He also wrote notes on Tacitus, of whose style he says,
that language contains with elegance. He also
wrote "Exempla" in verse, of which the elder Scaliger
says, that "they are entertaining, chaste, and elegant,
and not without strength;" and that "the sentiments are such
as may be useful, even in civil life." These were published
at Augsburg, in 1591; and in 1601, at Padua, with
notes, in 1601: and they have been translated into various
languages. Other works of Alciati, not included in the
3d edition, are "Refutations," Lugd. 1561; "Histories
Mediolanenses," Svo. 1625; "De forna Romani Imperii,
Svo. 1559; "Epigrammatas," Svo. 1629. A volume of
his letters was published at Utrecht in 1697; and in 1699,
appeared a letter, which he wrote to a friend who had be-
come a heretick, representing the imprudence of his conduct,
and exposing, with great spirit, the abuses of monastic life.


ALCIATI, JOHN PAUL, a native of Milan, distingui-
she himself in the 16th century, among those protestants
who receded to the greatest distance from the Catholic faith,
by denying the doctrine of the Trinity, and asserting that Jesus
Christ did not exist before he was born of the Virgin Mary.
With a view of indulging his speculations and prosecuting his
inquiries without molestation, he removed to Geneva.
Here he found protestants no less intolerant than papists.
From hence the zeal of Calvin in the persecution of Scribe-
tus, and the demand of subscription to the formulary of the
Italian church at Geneva, obliged him, and others denomi-
nated Socinians, to seek refuge in some other country. Ac-
cordingly they fled to Poland, where Alciati and Blundrata
were very successful in disseminating their opinions.
Towards the close of his life, Alciati was reproached
with having renounced Christianity, and becoming a Mahom-
taan; but this is probably a calumny, similar to that which
has been alleged against others, because they have concur-
red with the Mahometans in maintaining the simple unity
of the divine nature. Calvin and Beza have been very severe
in their charges against Alciati, representing him not only
as ignorant, but frantic; this, however, is one of those in-
f inade in which allowance should be made for that vehe-
ence and invective which are often the result of difference
of opinion. Alciati eloqted his life at Dantzic. In 1564,
he published his "Letters to Gregorio Pauli" against the pre-

ALCIDIADES, an Athenian general, was the son of
Chian, the nephew of Pericles, and lineally descended
from Ajax; and as much distinguished by the conneclens
of his person and the natural endowments of his understanding,
as by his rank and fortune. In early life he manifested those
talents and properties, which duly cultivated and directed
would have rendered him eminent and illustrious. But his
accomplishments and connections betrayed him into many
shames and dangers, which he wanted resolution to avoid.
Nature, in him, says Cornelius Nepos, had exerted her un-
mot fit force; since, whether we consider his virtues or his
vices, he was distingiushed from his fellow-citizens. He was
adapted to command attention and esteem, he became a very general
object of that love, which among the Greeks was sometimes
a pure, sometimes an ambiguous, and sometimes a leandalous
attachment. It was his felicity to engage the honourable
regard and friendship of Soearates; and to his instruction and
influence, he was much indebted; and though his preceptor
was less successful than he wished, in restraining his vicious in-
culations, implanting in his mind good principles, and guiding
him to laudable pursuits, his pupil seems never to have to-
tally lost the benefit of his good counsel. Of his vivacity
and resolution, when he was very young, the writers of his
life have recorded several instances, which indicate his cha-
acteristic temper. When he wished to fly a waggon which
was passing along the road, and interrupting a play in which
he was engaged, and his persuasion had proved ineffectual,
he threw himself directly before it and challenged the driver
to proceed; and this sudden display of resolution frightened
him and made him stop his horses. On another occasion he
went into a grammar school, and asked for a volume of Homer,
which the master was unable to produce; he gave him a box on the ear and departed; intimating by this action,
that a person who was not conversant with Homer was not fit
for to be a teacher of youth. As an act of rolic, and for
the gratification of his companions, he committed the fame
act of insolence on Hippomencia, a respectable man of rank
and fortune; but early on the next morning he went to his
house, and being admitted into his presence, stripped himself,
and offered his withered body to any chastisement which Hip-
ponion might think due to him. By this humiliation he
not only appeased Hipponon, but conciliated his esteem,
and afterwards obtained his daughter Hippapre in marriage.
Alikbeides, as he advanced in years, addicted himself to the
chariot-races, and he is said to have been the first person
who fent seven chariots at one time to the Olympic games.
The magnificence which he displayed on these occasions,
rendered him popular in the Greckian states; and at Athens
in particular his conduct in various respects became the topic
of very general conversation. In order to divert their at-
tenion from the more frivolous and faulty parts of his char-
acter, he is said to have cut off the tail of a very beautiful
dog, which he much valued. The aspiring and active dif-
polition of Alikbeides led him at an early period to military
service. His first campaign was in the war which Athens
carried on against Potidea; Soearates attended him, and
preferred his life, when, after fighting valiantly, he fell
wounded in the field. In the battle of Delium, some years
afterwards, he returned the obligation, by guarding Soearates
in the retreat, and bringing him off securely. A treaty of
peace having been established between the Athenians and
Spartans, by the instrumentality of Nicias, who by this event
had acquired popularity and influence, the jealousy of Ali-
beides was excited, and his ambition led him to overturn
the pacific system which Nicias was anxious to preserve.
With this view he encouraged the people of Argos to break
with the Spartans, and promised them the succour of the
Athenians; and he exerted himself in widening the differ-
ence that still subsisted between the Lacedemonians and the
latter. He also represented Nicias as more attached to
Sparta than Athens, and by his eloquence contributed to

subvert
subvert his popularity, and to make him odious to the people. When ambassadors arrived from Lacedaemonia, with full powers to terminate all differences, he contrived, by an artifice, to prepossess them in his favour; and to induce them to declare, that though they were not empowered to bring matters to a conclusion. He then charged them with prevarication, and defeated the object of their embassy. Having to far succeeded, he immediately recommended the cause of the Argives, Mantinians and Eleans, who fought the friendship of Athens; but before any resolution could be adopted, an earthquake happened, which of course dissolved the assembly. When Nicias returned from Sparta, without having succeeded in his negotiations, the Athenians concluded a league with the Argives and the other states above mentioned, for 100 years. Aleibiades was now become so popular, that he was appointed to the command of a fleet which was destined toaffil the Argives, and to put an end to the disputes which prevailed in their capital. The disposition of the people with regard to Aleibiades is justified by Aristotle, in his comedy of "The Frogs," (Act. v. Sc. 4.) "They hate Aleibiades, says he, and yet cannot do without him." The Misanthropic Timon formed a much better judgment of this conduct of Aleibiades. When he met him as he was coming from the assembly, and observed the respect with which he was treated, he asked him by the hand and addressed him: "Go on and prosper, my son; thou dost right in pushing thy fortune, for thy advancement will be the ruin of all these people." The war of Sicily, which soon followed, proved that Timon was not mistaken. The Athenians had long been desirous of establishing themselves in this island. Their ardour was inflamed by Aleibiades, who encouraged the delusive hope, that Sicily would be only their place of arms and arsenal; and that they should proceed from hence to the conquest of Carthage, and make themselves masters of all Africa and the sea, as far as the pillars of Hercules. Nicias and Aleibiades had harangued the people on this subject; but the latter prevailed. A powerful armament was prepared for the expedition; and Aleibiades, Nicias and Lamachus were appointed joint commanders. When every thing was prepared, and the fleet was ready for sailing, several unfavourable omens occurred, which excited in the minds of the people very disturbing apprehensions. One of these omens was particularly momentous to the fortune of Aleibiades. The Hermae, or half statues of Mercury, which floated at the entrances of private houses and temples at Athens, were in one night mutilated and destroyed. Aleibiades was suspected of being concerned in this act of impiety, and he was actually charged with having defaced other statues and with having ridiculed some of the sacred mysteries. The fleet, however, sailed; but soon after their arrival in Sicily, Aleibiades was recalled; but having accompanied the messengers as far as Thurium, he absconded and withdrew to Peloponnese. Being asked, on this occasion, whether he would not rely on his country, with regard to the judgment it might pass on him, he replied, "I would not rely on my mother, lest she should mistake a black bean for a white one," referring to the use of beans in giving suffrages, in which a black bean denoted condemnation. On his non-appearance he was condemned, his property confiscated, and the priests and priests' letters were commanded to curfe him. Among the latter was Thucano, who opposed this decree, alluding, 4 that she had been appointed priestess, not to curfe but to bless." When news was some time after brought to Aleibiades, that the Athenians had condemned him to die, he is said to have declared: "I will make them sensible, that I am still alive." Aleibiades, in consequence of this event, abandoned the interest of his country, and induced the Spartans to succour the Syracusans, and to declare war against Athens. At Sparta he assumed the Lacedemonian discipline, and by his versatility of disposition and manners, gained universal esteem. He cut his hair short, bathed in cold water, fed upon coarse bread and black broth, and affected simplicity and gravity of demeanour. He was at the same time active in his exertions, induced several of the cities of Ionia to revolt from the Athenians, and engaged Tissaphernes, the king of Perse's lieutenant, to concur in a league with the Spartans. Whilt he was thus employed, he engaged in an intrigue with the wife of the Spartan king, Agis, with the vain ambition, as he pretended, of giving a line of kings to the Lacedaemonians; and Agis became his implacable enemy. He saved his life by taking refuge with Tissaphernes, and in this new situation, he conformed to the luxurious manners of the Persians, and practiced adulation to such a degree, as completely to ingratiate himself with the Satrap. By his counsel, Tissaphernes maintained an even balance between the Athenians and Lacedaemonians; and Aleibiades at length contrived to make the friendship of the Persians the means of his own return to Athens. The constitution of the government having been changed, partly by his counsell and agency, from a democracy to an oligarchy, he was recalled by unanimous consent. But before his return, he determined to merit the honour to which he was aspiring by some illustrious exploit. Accordingly, in conjunction with the other Athenian commanders, Theramenes and Themysdrus, he took several places and gained several victories over the Spartans and their allies, and then set sail for Athens, with a fleet of 200 ships laden with rich spoils, together with the ships and flags captured from the enemy. A. M. 3597, B. C. 427. His reception was in a very high degree flattering and honourable; and in an assembly of the people, he deplor'd his misfortunes, which he ascribed to his own evil genius more than to the ill-will of his countrymen; and by his eloquent and pathetic speech so pleased his audience, that crowns of gold were decreed him; he was appointed general by sea and land, with unlimited power; his fortunes were restored to him; and he was absoleved by the Eumolpides and Corycians from all the executions that had been denounced against him. "As for me," says Theodorus, one of the persons employed in revoking the imprecations, "I have not curfed him, if he has done no evil to his country." When this pageantry was concluded, he set sail with 100 ships for the island of Andros, which had revolted; and having gained a victory, he departed for Caria in order to raise money, and left the fleet in the charge of Antiochus. Before his return, Lyander, the Spartan commander, brought on a battle, defeated the Athenian fleet, and slew Antiochus. The consequence of this disater was discontent at Athens, and the loss of his command. Instead of returning home, he collected a band of soldiers of fortune, and enriched himself by the booty which he took among the Thracian tribes; avoided the fate of the 10 new commanders appointed by the Athenians, most of whom lost their lives, on account of their ill success; and warned the Athenian commanders of the danger to which their fleet was exposed at Aegospotamis. When Athens was taken by Lyander, Aleibiades retired to Phocis, where he was plundered of part of his property, and from hence he went to Phrygia, and obtained the protection of Pharnabazus the Persian governor. The Athenians, suffering under the oppression of the 30 tyrants, directed their views to Aleibiades; and as soon as the tyrants
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p. 191.
Corn. Nepos.
in
Alcib. Thucydides,
p. 316, &c.
Ed. Dukerii.
Diod. Sicul. tom. i.
p. 522-474.
Ed. Wefeling.
Xenophon.
Hellen. lib. ii.
Rollin's Anc.
Hift.
vol. iii.
p. 162-323.
Anc. Un.
Hift.
vol. v.
p. 293, &c.

A L C I B I A D E S, was the name of one of the martyrs
at Lyons, A. D. 177. He came originally from Phrygia,
and lived a very afront life, living upon bread and
water: but was afterwards perfused, in order to avoid
giving offence, to partake of all sorts of food promiscuously,

A L C I B I A D E S, in Entomology, a species of Papilio
erque,
with white wings, the anterior bounded by a black margin,
the posterior marked below and at their tip with ferruginous
black spots, found at Tranquebar.

A L C I B I U M, in Botany, a word used sometimes by
the ancients as an epithet for a kind of echium, or viper's
bubo,
and sometimes as the name of a peculiar plant.

A L C I D A M A S, in Biography, a native of Elea, in
Elea,
was the disciple of Gorgias Leontius, and contemporary
with Iocrates, and lived about 400 years before Chrifi.
Two orations are extant under his name, viz. :
"Ulysses contra Palamedes," published by Aldus,
in his edition of the Orations of Alcines, Lyons, &c.
in fol. at Venice in 1513, and by H. Stephens in 1575;
and another "Contra Sophiliptas," annexed to Aldus's edition
tom. ii. p. 346, ed. Olivet.) mentions Alcidas as the author
c. 26. tom. i. p. 906.

A L C I D A M A S, in Entomology, a name given by Grazer
to the Papilio Turnus of Linnaeus.

A L C I D E S, in Entomology, a species of Papilio philojeus,
with cendated black wings dotted with blue, ferruginous
below, and marked with a yellowish streak; found in Sierra
Leona in Africa.

A L C I D E S, is also a species of Scarabæus, with
the horn of the thorax bent, bearded below, and unidentated,
and the head recurved and naked, found in India.

A L C I D E S, in Mythology, the surname of Hercules. See
A L C E A S.

A L C I D O N, in Ancient Geography, a river of Triphyla,
which rose on the frontiers of Arcadia, and discharged
itself into the Jardanus.

A L C I M E D O N, a plain of Arcadia, north of Man-
tinea.

A L C I N O U S, in Biography and History, is represented
by Homer as king of the Phaeacians, in the island now
called Corfu. His subjects were excellent mariners, and
much addicted to the dance and song, and every kind of
social pleasure; they were employed in conducting the ship-
wrecked Ulysses, who was hospitably received by Alcinous,
and Ithaca. The tale of Alcinous for horticulture is much
celebrated; and his garden, or orchard, is described by Ho-
mer as affording an abundance of fruit in quick succession,
and also copious streams and pleasant shade. Homer Odys
lib. vii. v. 108.

Hence we read in ancient geography, of the port, and
also of the gardens of Alcinous, which pertained to this
island.

A L C I N O U S, a Platonic philosopher, probably lived about
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the beginning of the second century of the Christian era, and wrote a perspicuous and elegant "Introduction to the Philosophy of Plato," containing a summary of his doctrine. It was published in Greek by Aldus, at Venice, in 1521 and 1532, 8vo.; and with Ficinus's Latin translation, at Basle, in 1532; and at Paris, in 1562, 4to.; by Charpentier, with a Commentary, at Paris, in 1753; by Ficinus, Gr. and Lat. 8vo., at Leyden, in 1657, and reprinted at Oxford in 1657, 8vo.; and in English, by Stanley, London, in 1655, 1657, 1659, &c. Fabr. Bibl. Greec. lib. iv. c. 23. vol. iv. p. 40. &c.

ALCIONIO, Peter, a learned Italian, contributed to the revival of letters in the 16th century. He studied the Latin and Greek languages with great diligence, and was for many years corrector of the press to Aldus Manutius at Venice. His learning advanced him to a professorship at Florence, under the pontificate of Adrian VI. He translated many Greek works into Latin, and his translations have been highly commended. He was also the author of many original productions, which prove him to be a man of talents. In his disposition and manners, however, he was chargeable with moroseness and ingratitude, and with temperance and gluttony. Whilst he unduly valued himself on account of his own performances, he detracted from the merit of others. In the troubles excited at Rome by the Colonnas, he lost his estate; and in the year 1577, when the Emperor's forces took the city, he received a wound as he was going to join the Pope in the castle of St. Angelo; but upon the raising of the siege, he deserted his patron, and united with Cardinal Pompey Colonna, at whose house he fainted and died. His piece on exile, in the composition of which he was reported to have purloined a treatise of Ciceron, "de Gloria," which he had found in the library of a monastery, and afterwards destroyed, his "Orations on the taking of Rome by Charles V., and on the knights who died at the siege of Rhodes," are all the original works which he left. The former was printed at Venice, in 1522, in 4to.; and again at Leipzig, in 1702, under the title of "Analecta de Calamitate Libri." Gen. Biog.

ALCIPHRON, a philosopher of Magna Graecia, mentioned by A. Antoninus and Suidas, flourished in the time of Alexander the Great. He is different from Aleiphron, the sophist, whose age is unknown, who wrote epistles on various topics, of which an edition was published at Leipzig, in 8vo., in 1715. Fabr. Bibl. Greec. lib. ii. c. 10. vol. i. p. 423.

ALCIPHRON, in Entomology, a name given to the Phalæna moths, carius, with cinereous wings, white hatreds and point in the middle, yellow at the base, and five black points, found in the Indian fig.

ALCIPUPS, a species of Papilio Danaus, with yellow entire wings, a black margin, and white points, the posterior having a white disc, and black points, found in America.

ALCIS, in Mythology, the name of a deity worshipped by the Naheuri, a nation of Germans: and a name given to Minerva by the Macedonians. Tacit. Germ. 43. Liv. 42. 51.

ALCKHAUSEN, in Geography, a town of Swabia, belonging to the grand-master of the Teutonic order, in the county of Wehringen.

ALCMEON, in Biography, a physician and philosopher, was born at Crotona, and probably flourished about 520 years before Christ, as he was a disciple of Pythagoras, and attended his lectures. He is said to have been the first person who attempted the dissection of a dead body, and of various animals, in order to examine the structure of the parts and to have discovered the cochlea, one of the bones forming the organ of hearing. Le Clerc, Hist. de la Medicine, p. 94. He is said by Chalcidius, Haller observes, (Bibl. Anat. vol. i. p. 10.) to have attempted a treatise on anatomy, which, however, is lost. The sum of his tenets, as far as they can be collected from scattered fragments, is this: 1. Natural objects, which appear multiform to men, are in reality two-fold; intelligible natures, which are immutable, and material forms, which are infinitely variable. The sun, moon, and stars are eternal, and are inhabited by portions of that divine fire, which is the first principle in nature. The brain is the chief seat of the soul, which is in perpetual action and immortal. Health consists in preserving a due mean between the extremes of heat and cold, dryness and moisture." Diogen. Lact. lib. viii. § 83. Clem. Alex. Strom. lib. i. p. 305. Artifl. Met. lib. ii. c. 5. lib. v. c. 1. Jamblec. Vit. Pyth. c. 23. n. 104. Cicer. de Nat. Deor. lib. ii. c. 11. Stob. Ecl. Phys. p. 54, 60, 93. Plut. Plac. Phil. lii. c. 16, 27. lib. iv. c. 17. Fabr. Bibl. Greec. lib. vi. c. 9. tom. xii. p. 49. Brucker's Phil. by Enfield, vol. i. p. 401.

ALCMAR, or ALKMAAR, in Geography, a town of the United Provinces in North Holland, about four miles from the sea, and 18 miles from Amsterdam. The streets are regular, the houses well built, and it is kept clean and neat by means of its canals. The land about the town was formerly full of moraines, but since it has been drained it is become exceeding good meadow-land, and the town is surrounded by productive orchards and gardens. The town, both within and without, has several beautiful walks. The noble canal that reaches from Alkmaar to Hoorn, was cut towards the beginning of the 17th century. This place was once very strong, and in 1573, obliged the Spaniards to raise the siege, after being encamped before it seven weeks. In the register of this town it is recorded, that in 1645, 120 tulips, with the offsets, sold for 90,000 florins. The butter and cheese that are made in the neighbourhood are reckoned the best in Holland, and furnish considerable articles of trade. N. lat. 52° 28'. E. long. 4° 26'.

ALCMAN, in Biography, a Lyric poet, was born at Sardis, or at Sparta, and flourished in the 27th Olympiad, about 670 years B.C. Herculeus of Pontus assures us, that he was in his youth a slave at Sparta, and that by his genius and good qualities he obtained his freedom and a high degree of reputation in Lyric poetry. He was a performer on the cithara, and probably sung verses to the flute. Clemens Alexandrinus (Strom. lib. i. c. 16) tom. i. p. 364—363, ed. Potter.) makes him the author of music for chorul dances, and according to Archytas Hermigenus, cited by Athenaeus, (Deipn. lib. xii. c. 8, p. 600.) Alcman was one of the first and most eminent composers of songs upon love and gallantries. Suidas says, that he was the first who excelled hexameters from the verses that were to be sung to the lyre, which afterwards obtained the title of Lyric poetry; and Allan tells us, that he was one of the great musicians that was called to Lacedemon by the exigencies of the state, and that he sang his airs to the sound of the flute; by which Dr. Burney understands that he taught the Spartan army to perform their evolutions to the sound of this instrument. Alcman, according to Athenaeus, was not more remarkable for a musical genius than for a voracious appetite, and Allan charge him among the greatest gluttons of antiquity; and his improvidence was probably the cause of the particular difficulty of which he died. The Spartans erected a monument to him, which fabriked in the time of

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Pompeius.
Athenaicus. Of the many poems attributed to him by antiquity, nothing remains besides a few fragments furnished by citations in Athenaeus and other ancient writers, and preferred by Neander, H. Stephens, and Urfinus. The name of his mistress was Megalolitra, a poetess. Alcman used the Doric dialect. Fabr. Bib. Græc. lib. ii. c. 15. tom. i. p. 366. Burney’s Hist. Music, vol. i. p. 385, &c. Some have confounded Alcman with Alcmeson, the son of Perichilus of Creton, who, as Clem. Alex. (vii. 7) informs us, was the first who wrote a book concerning nature. See also Membr. ad Laetcr. viii. 83.

ALCMENIAN, in the Ancient Poetry, a kind of lyric verse, or metre, consisting of two dactyles, and two trochees. Such r. gr. is

"Virginius puerique cano."

The word is formed from Alcman, the name of an ancient Greek poet, in great esteem for his Erotics, or amorous compositions.

Some authors assign other Alcmanian verses, composed of three dactyles and a long syllable.

E. gr. "Munere lepismiamque Dei."

Others give an Alcmanian, composed of a dactyl, spondee, and another dactyl, and a long syllable.

E. gr. "Ne dubita, nam vera siles."

ALCMENA, in Mythology, the daughter of Electryon, king of Mycene or Argos, wife of Amphitryon, and mother of Heracles by Jupiter.

ALCMENON, in Biography. See ALCMENON.

ALCMONE, in Entomology, a species of the Papilio Danaus, with rounded wings of the same colour, yellow at the base and white at the tip, found in Malabar.

ALCO, in Zoology, the name given to the Canis Americanus of Linnaeus, about the size of a squirrel, with a small head, pendulous ears, curved body, and short tail. There are two varieties, viz. the fat alco, yzceuinte-porzoti, canis Mexicanus of Hernandez, or michuacanensis of Fernandes, which is extremely fat, head very small, ears pendulous, with the fore part of the head white, and yellowish ears, short neck, arched back, yellow hair, white, short pendulous tail, large belly, spotted with black, white legs and feet, and the female with six conspicuous paps; and the techichi of Fernandes, which is like the small dogs of Europe, except that it has a wild and melancholy air. The first of these approaches the Iceland dog, and the second is perhaps the same animal with the keparua, or crab-dog of Guiana, which in figure resembles the fox, and in its hair the jackal; and has been called the crab-dog, because it lives chiefly upon crabs and other tetttaceous animals.

ALCOBACA, in Geography, a town of Portugal, in Estremadura, situated upon a small river near the sea, and surrounded by mountains, in a beautiful situation. It has a celebrated Cistercian abbey, built by Alphonso I. in 1148, which has been the general sepulchre of the kings of that kingdom. It is south-east of Liria, and 65 leagues north-east of Peniche. This town carries on various manufactures, the oldest of which is in the monastery, established by Pombal. Cambres and fine linens are made here, but the woollen manufacture, and that for spinning of wool, which is performed by machinery, are more important. Link’s Travels in Portugal, p. 278.

ALCOCK, John, in Biography, an English Divine, was born at Beverley, in Yorkshire, and educated in the university of Cambridge, where he took the degree of doctor of laws. His ecclesiastical preferment was rapid, and he was successively bishop of Rochester, Worcester, and Ely. In 1462 he was appointed master of the rolls; in 1470 a privy-councillor, and one of the ambassadors to the king of Caltile; in 1471 a commissioner to treat with the commissioners of the king of Scotland; and in 1472 lord-high-chancellor of England. He is represented as a prelate of distinguished learning and piety, and also of singular affinence and purity. He was not only a considerable writer, but an excellent architect, so that he was made comptroller of the royal works and buildings under Henry VII. He improved the palaces of his several fees; founded a school, according to Fuller, at Beverley; and he was also the founder of Jesus college in Cambridge, appropriating to this purpose a nunnery, which was so notorious for incontinence, that the society was called a community of spiritual harlots. This college was first designed for a maister, six fellows, and as many scholars; but under the patronage of the bishops of Ely, it has much increased in buildings and revenues, and now consists of a maister, 16 fellows, and 30 scholars. Alcock was famous for preaching long sermon; one of his sermons before the university lasted upwards of two hours. He wrote severall pieces, viz. "Mons perfectionis ad Carchthiannos;" "Abbattia Spiritus Sancti in pura Conscientia fundata;" "Penitential Pfalms," in English verse; "Homilies vulgares;" "Meditations pie;" and "Spauage of a Virgin to Christ." Besides these he wrote a treatise with the whimsical and punning title of "Galli Cantus ad confratres suos," or the crowing of the cock to his brethren; at the beginning of which is a print of the bishop preaching to the clergy, with a cock on each side, and having also a cock in the first page. This prelate died Oct. 1, 1569, at Wilbech, and was buried at a sumptuous chapel, which he had built for himself, and which, though now neglected, is a noble specimen of his skill in architecture. Biog. Brit.

ALCOER, in Geography, a small town of Spain, in New Calidé, situated in a fine country, between the Tagus and the river Cuyar. N. lat. 38° 55’. W. long. 4° 26’.

ALCOHOL, ardent spirit, spirit of wine. Alcohol, Ethyl de vin. Fr. Weingiff, Germ. Spiritu ardentis, spirti de vino. Acquarante, Italian. The term alcohol is applied exclusively by modern chemists, to the purely spirits part of all liquors that have undergone the vinous fermentation. As this substance bears a very high importance, both as a chemical agent and in its various combinations, we shall below upon it considerable attention.

Alcohol is in all cases the product of the faccharine principle, and is formed by the successive procresses of vinous fermentation and distillation. All fermented liquors, therefore, agree in these two points; the one, that a faccharine juice has been necessary to their production; and the other, that they are all capable of furnishing an ardent spirit by distillation.

Various kinds of ardent spirits are known in commerce, such as brandy, rum, arrack, malt-spirits, and the like; these differ from each other in colour, smell, taste, and strength; but the spiritsuous part, to which they owe their inflammability, their hot fiery taste, and their intoxicating quality, is the same in each, and may be procured in its purest state by a second distillation, which is termed in technical language, rectification.

We shall refer the reader to the articles of Fermentation (vinous), Distillation, and the several species of distilled spirits, for an account of the progressive stages in the formation of alcohol; and we shall here take up the subj ect with the procress of rectification or the second distillation, whereby alcohol is brought to that state of purity
in which its chemical properties are the most conspicuous.

Alcohol, as well as ardent spirits of different kinds, is procured most largely in this country from a fermented grain-liquor, prepared for the express purpose of distillation, from grain, molasses, &c.; but in the wine countries, the spirit is obtained from the distillation of wine; whence the synonymous term, spirit of wine. We shall only take the example of brandy, which is the product of the first distillation of wine, and mention the method by which alcohol is procured from it by rectification.

Brandy is a compound of alcohol, water, a colouring extraneous matter, and a small quantity of oil. It is to the two last that it owes its peculiar flavour, smell, and appearance, whereby it is distinguished from other distilled spirits. The object of the process of rectification is to separate the first from the other ingredients, and this separation is effected upon the principle that alcohol is the most easily volatilized when a gentle heat is applied, and therefore appears in the first product of distillation, whilst the extraneous matter and much of the water remain behind. It is more difficult, however, to get rid of the small portion of oil which brandy contains, as this is soluble in alcohol, and will mix with it in distillation, unless prevented by the means which will be presently mentioned.

The observations of M. Baumé, and his directions for the preparation of alcohol, are so judicious and accurate that we shall here mention them.

The following is the process given by this able chemist:

"To procure rectified alcohol, put a quantity of brandy in the water bath of an alembic, and proceed to distillation. Set apart the first product of the distillation when it amounts to about a fourth part of the liquor put into the alembic. Then continue the process till about as much more is obtained, or till the liquor comes over white and milky. Then re-distil the latter product, and mix the first half which comes over with the first part of the former distillation, and continue to distil as long as any spirit comes over. This latter portion may be again distilled, and the first product mixed with the former first products, as before. After each distillation, there remains in the alembic a watery liquor which retains the smell of brandy, but is entirely deprived of inflammable spirit, and is thrown away as useless.

"Having thus procured all the spirit from the brandy, return all the referred first products to the alembic, and distil with a gentle fire. When about half the liquor has come over, it should be kept apart as pure rectified alcohol; the remainder is to be distilled as long as it is inflammable, and may either be again rectified, or reserved for those purposes where a spirit of inferior strength is required."

The reason given by this judicious chemist for the above process is this: the spirit which first passes over in distillation is the purest, and contains the leal part of gross effential oil; the latter portion, on the other hand, is almost saturated with this oil, and the difference between the two is easily distinguishable when rubbed on the hands; the first product leaves no smell of brandy, but the tail gives an odour like the breath of drunkards, who digel their food imperfectly. The quantity of oil, however, varies according to the nature of the brandy; that which is made from wine alone containing the leal oil, but that which is procured from wine lees being so full of it as to leave a bratment of the oil swimming on the watery extraneous liquor left in the alembic, after all the spirit has been distilled off.

M. Dublouin remarks concerning this oil, that the liqueudes brandies contain much more of it than the Cognacs; and that after distilling a large quantity of the former, the head of the alembic was covered with expanded drops of the oil, which adhered to the vessel. When collected together, and quite cold, they became as stiff as suet, had a chefnt colour, a strong disagreeable taste, and a smell like turpentine.

Various additions have likewise been made to the impure spirit, in order to affix in the separation of this oil. The simplest, and one of the most efficacious is water. This, when added to the oily spirit, turns it milky (as is the case with any other solution of effential oil in alcohol), and by weakening the adhesion between the oil and the spirit, it enables the latter to rise in distillation, unmixed with the former. The chief inconvenience of this addition is, that it weakens the strength of the spirit so much as to require succesive rectifications before it can be sufficiently deprived of its watery part.

Chalk, crumb of bread, bran, and other substances, are also added before distillation to the spirit, when oily and ill flavoured; and they all have a good effect in keeping down the matters which contaminate the alcohol, and render the distillation more effectual in purifying it.

Quicklime is still more efficacious, but it much leffens the product of alcohol, alters its nature in some degree, and makes it more penetrating. It would appear, however, that there are some kinds of wine in which the adherent particles are so intimately mixed with the spirituous part, that it is scarcely possible to separate them by simple distillation, however cautiously and skillfully conducted.

The common still with the worm-tube and refrigeratory, is very well calculated for the rectification of spirits, only allowance must be made for the readjusts with which ardent spirit, when heated, assumes the state of vapour, and the very great expansion which it then undergoes.

Alcohol, freed from all foreign ingredients but water, and already of considerable strength, may be brought to the specific gravity of 0.825, at the temperature of 70°, by single distillation, where the heat is moderate and applied very gradually, and the condensation flow. When about a third or half of the spirit is distilled over, the strength of the decreasing portion is diminished, the specific gravity increases, and it becomes more watery, and therefore the first product should be kept apart. This cannot be rendered stronger by any repetition of simple distillation, but it may be still further depregnated by means which will be mentioned hereafter.

We shall now proceed to the properties of alcohol.

Alcohol is a colourless transparent liquor, appearing to the eye like pure water. It pōllexis a peculiar penetrating smell, diffent from the proper odour of the distilled spirit from which it has been procured. To the palate it is exceptionally hot and burning, but without any peculiar flavour. From its great lightness and mobility, the bubbles which are formed on shaking it fille like almost instantaneous, and this is one method of judging of its purity. Alcohol is very easily volatilized by the heat of the hand, it even begins to be converted into a very expanlible vapour at the temperature of 55° Fahr.; and the quickness of evaporation always produces a considerable cold. It boils at about 165°, and the vapours when condensed return unaltered to their former state. It has never been frozen by any cold, natural or artificial, and hence its use in thermometers to measure very low temperatures.

Alcohol takes fire very readily on the application of any lighted body, the speedier in proportion to its purity. It burns with a pale flame, white in the centre and blue at the edges; this gives but a small degree of heat, and is so faint as to be scarcely visible in bright day-light. It burns with
Alcohol mixes with water in every proportion. Heat is
extracted during the mixture, which is sensible to the hand,
even in small quantities. At the same time, there is a mutual
penetration of parts, so that the bulk of the two liquors,
when mixed, is less than when separate. Consequently
the specific gravity of the mixture is greater than the mean
specific gravity of the two liquors taken apart. The alco-
hol may be again for the most part separated from the water
by distillation with a gentle heat. See Gravity (Specific).

Owing to the great affinity which subsists between water
and alcohol, this latter has the power of precipitating from
the solution various salts dissolved in water. Thus, if some
dilute alcohol be added to a saturated solution of Glauber's
salt in water, a coagulum is immediately produced, consist-
ing of the salt separated from the water in a very divided
form, whilst the alcohol and water form a chemical union.
This precipitation, however, only takes place in solutions of
those salts which are insoluble in alcohol. This circumstance
has been very ingeniously applied to the analysis of various
tartar solutions, and especially to the examination of mineral
waters. The power of precipitating some of these salts ex-
tends to very dilute solutions. Mr. Kirwan, in his valuable
work on mineral waters, has found by experiment that cele-
trate may be completely precipitated from water which con-
tains only one-thousandth of its weight of this earthy salt,
by any alcohol whose specific gravity is below 0.850. For
further particulars on this subject, we must refer the reader
to the article: Waters (Mineral, Analysis of).

Alcohol is capable of uniting with a great number of
substances, a circumstance which renders its use very exten-
sive in a variety of chemical processes and in analysis. These
we shall enumerate.

Some of the weaker acids, such as the boracic and tar-
taric, are soluble in alcohol without any apparent decom-
position, and may be again recovered by evaporating the
spirit. The stronger acids, however, exercise a very powerful
action on alcohol, and produce several very curious and
important compounds, particularly that singular liquor called
Ether. See the articles Ether, Oil of Wine, and
Oeixiant Gas.

All the alkalies, when pure, may be dissolved in alcohol,
but the fixed alkalies, when combined with carbonic acid,
are not soluble in this menstruum. This affords a very con-
venient method of procuring the caustic fixed alkalies in a
state of purity, and by proper management they may be
made to crystallize from their spirituous solution. The
colour of a solution of alkali in alcohol is always somewhat
red, however pure the alkali be, which is owing to a partial
decomposition of the spirit. See the article Potash and
Tincture of Salt of Tartar.

Several of the neutral, earthy, and metallic salts are solu-
ble in alcohol. It is of some importance in chemical ana-
lysis to ascertain the degree of solubility of these salts, and
many experiments have been made for this purpose.

The first of any importance are those of M. Macquer.
He employed a spirit rectified so far, that a phial holding
a Paris ounce of distilled water, at the temperature of 45°
Fahr. would contain fix gros and fifty-four grains of the
spirit. The salts which he employed were previously dried
with care, so as to expel their water of crystallization. He
poured into a matrauch upon each of the salts half an ounce
of the spirit, and left the vessel in a hot sand-bath. When
the spirit began to boil, he filtered it while hot, and then
left it to cool. He then evaporated the spirit, and weighed
the false residuum; and from these he inferred the quantity
of salt which the spirit had dissolved.

This method, however, cannot be considered as accurate,
as some of the spirit must have evaporated during boiling,
and some of the salt must have been deposited in the pores
of the filter. Neither would the errors produced in this
way be uniform, since it appears that some salts are, in a
greater proportion than others, more soluble in hot than
in cold spirit.

Wenzel also published a series of experiments, in 1777,
on this subject. He varied the heat which he employed,
according to the solubility of the salt.

He has, however, been guilty of a great omission in not
mentioning the specific gravity of the alcohol which he used,
but it may be supposed to be nearly the same as that of
Macquer.

Lallly, Mr. Kirwan, with that accuracy for which he is
so justly distinguished, has given in his treatise on mineral
waters, a table of the solubility of certain salts, in which
alcohol of different densities is employed, and the tempera-
ture properly noticed.

Our readers will find the results of all the above-mentioned
experiments in the following Table.

| TABLE |
TABLE of the Solubility of SALTS in Alcohol.

<table>
<thead>
<tr>
<th>Salts employed, all deprived of their water of crystallization.</th>
<th>MACQUER. Soluble in 288 grs. of Alcohol, of about 0.84 sp. gr.</th>
<th>WENZEL. Soluble in 240 grs. of Alcohol, of about 0.84 sp. gr.</th>
<th>KIRWAN. Soluble in 100 grs. of Alcohol, of different specific gravity. Heat, from 50° to 70°.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrated Potash</td>
<td>4</td>
<td>5 boiling heat</td>
<td>2.76</td>
</tr>
<tr>
<td>Soda</td>
<td>15</td>
<td>23 boiling</td>
<td>10.5</td>
</tr>
<tr>
<td>Ammonia</td>
<td>108</td>
<td>214 boiling</td>
<td>4</td>
</tr>
<tr>
<td>Lime</td>
<td>288</td>
<td>240 at 54°</td>
<td>6.94 boiling</td>
</tr>
<tr>
<td>Alumina</td>
<td>—</td>
<td>100 boiling</td>
<td>partly decomposed.</td>
</tr>
<tr>
<td>Magnesia</td>
<td>—</td>
<td>240 at 54°</td>
<td>partly decomposed.</td>
</tr>
<tr>
<td>Silver</td>
<td>84</td>
<td>partly decomposed.</td>
<td>240 at 54°</td>
</tr>
<tr>
<td>Iron</td>
<td>4</td>
<td>240 at 54°</td>
<td>240 boiling</td>
</tr>
<tr>
<td>Copper</td>
<td>48</td>
<td>240 boiling</td>
<td>—</td>
</tr>
<tr>
<td>Zinc</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Cobalt</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Bismuth</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Muriated Potash</td>
<td>5</td>
<td>—</td>
<td>4.62</td>
</tr>
<tr>
<td>Soda</td>
<td>0</td>
<td>5 boiling</td>
<td>5.8</td>
</tr>
<tr>
<td>Ammonia</td>
<td>24</td>
<td>17 boiling</td>
<td>6.5</td>
</tr>
<tr>
<td>Lime</td>
<td>288</td>
<td>240 boiling</td>
<td>6.5</td>
</tr>
<tr>
<td>Alumina</td>
<td>—</td>
<td>240 at 54°</td>
<td>240 at 54°</td>
</tr>
<tr>
<td>Magnesia</td>
<td>—</td>
<td>213 boiling</td>
<td>—</td>
</tr>
<tr>
<td>(dried at 120° by Kirwan.)</td>
<td>213 boiling</td>
<td>213 boiling</td>
<td>—</td>
</tr>
<tr>
<td>Barytes</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Ditto, ditto, crystallized</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Muriated Iron</td>
<td>36</td>
<td>240 boiling</td>
<td>23.25</td>
</tr>
<tr>
<td>Copper</td>
<td>48</td>
<td>240 boiling</td>
<td>1.56</td>
</tr>
<tr>
<td>Zinc</td>
<td>—</td>
<td>240 at 54°</td>
<td>240 at 54°</td>
</tr>
<tr>
<td>Corrosive Sublimate</td>
<td>204</td>
<td>—</td>
<td>2.4</td>
</tr>
<tr>
<td>Acetized Soda</td>
<td>—</td>
<td>112 boiling</td>
<td>—</td>
</tr>
<tr>
<td>Lime</td>
<td>—</td>
<td>240 at 113°</td>
<td>—</td>
</tr>
<tr>
<td>Lead</td>
<td>—</td>
<td>18 boiling</td>
<td>—</td>
</tr>
<tr>
<td>Copper</td>
<td>—</td>
<td>9 boiling</td>
<td>—</td>
</tr>
<tr>
<td>Arseniated Potash</td>
<td>—</td>
<td>4 boiling</td>
<td>—</td>
</tr>
<tr>
<td>Soda</td>
<td>—</td>
<td>7 boiling</td>
<td>—</td>
</tr>
<tr>
<td>Oxalic Acidum</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

On examining the comparative results given in the above Table, we cannot consider them as very satisfactory, and in some instances we perceive a striking difference in the results, that it must depend on some more extensive cause than mere casual error. Probably the degree and continuance of heat employed, in drying the salt and expelling its water of crystallization, must have differed considerably in the respective experiments. It would be useless to attempt to explain the cause of difference in all the results, but this shews the great necessity of attending minutely to every particular in such experiments.

The most important of the salts insoluble in highly rectified alcohol are the following—all the sulphates, both of the alkalies, earths and metals; some of the nitrate metals; some of the muriated metals; and the carbonated fixed alkalies.

A peculiar colour is perceived in the flame of some of these solutions in alcohol when set on fire. The solution of nitrate gives a pale yellow flame, that of boric acid is a faint green, all the solutions of copper burn with a beautiful bright green, and those of nitrate or muriated iron, like that of a deep blood red.

Ammonia, both pure and carbonated, dissolves readily in alcohol. They are generally united by means of distillation, a moderate heat being sufficient to volatilize each. These combinations are principally employed in pharmacy.

Alcohol will readily unite with the carbonic acid gas, and will take up full its own bulk of it at a medium temperature.
perature.—The gas, however, appears to have little or no action on the spirit, since it is expelled from it by heat unaltered.

Neither metals, nor metallic oxys, nor metallic acids, appear to be in any degree soluble in alcohol.

Sulphur will not contract any union with alcohol by simple distillation either cold or hot; but when they are both reduced to the form of vapour, and then mixed, a true solution is effected, and the result is a very pungent spirit with a strong odour of liver of sulphur, and which becomes milky and deposits the sulphur on dilution with water.

Ardent spirit acts in a slight degree on Phosphorus, and dissolves to much of this inflammable substance as to become slightly luminous in the dark when the solution is dropped into water.

None of the pure earths are soluble in alcohol, and this latter has the power of precipitating lime, barities, and frontian, from their watery solutions.

It is on the chemical substances belonging to the vegetable kingdom that alcohol exerts its most powerful action as a solvent, and herein consists its very extensive use in pharmacy, in preparing liquors for the table, in some of the arts, and in a very important part of chemical analysis.

Most of the acids belonging to the vegetable kingdom are highly soluble in ardent spirit, such as the tartaric, the citric, the oxalic, and the gallic. In procuring the latter from the gall-nut, alcohol furnishes us with a very elegant and commodious method of separating the acid from the mucilaginous extractive matter with which it is naturally mixed.

The acetic acid, when of the usual strength, simply mixes with alcohol, without producing any decomposition, but chemists have succeeded in forming an acetic Ether, by employing the acid in its most concentrated state.

Alcohol will readily dissolve Sugar. Wenzel estimates the quantity at about one-fifth of the spirit. In all the sweet native vegetable juices, such as the sap of the fugar cane and the maple, or the expressed liquor from the parsnip and beet root, the fugar is mixed with a large quantity of a mucilage very little soluble in alcohol. This furnishes a ready method for separating the pure acecharom part, a method which is much employed in the analysis of various vegetable substances for the purpose of ascertaining the comparative quantity of sugar which they may be expected to yield to the manufacturer. This solution, when left to spontaneous evaporation, yields minute crystals of sugar, which are at first brown, and require a further purification.

Ardent spirit is an excellent solvent for effusent oils, and in general, for the most odorous and inflammable of the vegetable productions. In the effusent oil of a plant refines the Spiritus Rectior, or the AROMA, that which gives the exquisite perfume to the roe or jellamine. When these odoriferous plants are distilled with alcohol, it rises strongly impregnated with their scent and flavour, and as it takes up no colouring matter it remains perfectly clear as before. Thus, the common lavender water is alcohol distilled off the lavender plant, and holding in solution the effusent oil in which the scent refines. The Distilled Spirits in pharmacy, are similar preparations of alcohol, containing the flavour of spices, aromatics or other substances with which it has been distilled. (See Oils Essential).

All the Resins are highly soluble in alcohol, but fearfully, if at all, in water. These solutions have the peculiar colour, and acid taste of the resin which they contain. An addition of water renders them all turbid, and from the pure resinous solutions it precipitates almost the whole of the diffused contents in the form of thick flakes. The solution of guaiacum affords an example of this.

The Gum Resins, which are natural mixtures of gum and resin, yield their resinous part to pure alcohol and but little of their gum; water on the contrary dissolves the gum and leaves the resin; but a mixture of alcohol and water will hold both the ingredients in solution. These preparations are called Tinctures in pharmacy, and they are of considerable use in containing within a small bulk, the medicinal virtues of larger quantities of the ingredients employed.

Artificial resins, or Resinous Extracts, are also made by evaporating to dryness solutions of the resinous parts of several vegetables in alcohol.

Camphor is readily and largely soluble in ardent spirit. This solution, when saturated, will let fall almost the whole of the camphor on the addition of water. Camphor also remarkably afflicts the solution of the resins.

Solutions of resinous substances in alcohol form the basis of the spirit Varnishes, which when applied in thin layers over any substance, soon dry from the evaporation of the spirit, whilst the resin remains behind furnishing a smooth thin coating to the surface which they are intended to protect.

The fixed oils, when in their simple state, are entirely insoluble in alcohol, but they may be rendered soluble in this menstruum, either when they have been converted into drying oils by the action of metallic oxys, or when they are united with alkalies in the form of Soap. A solution of fine soap in alcohol is perfectly colourless and transparent, and will bear dilution with water without becoming turbid. It is employed in medicine as an external application, and is also a good reagent in the analysis of mineral waters to discover the presence of earthy salts. These decompose the soap by double affinity, and produce curdling.

The effect of alcohol on animal substances bears a considerable resemblance to its operation on the vegetable kingdom.

Mucilaginous fibres and the coagulum of blood are not soluble in this menstruum, but are rendered by it hard, contracted, and incapable of putrefaction.

Allumens is equally insoluble in alcohol and is coagulated by it, probably owing to abstraction of the water which held it in solution. Milk is speedily curdled by ardent spirit of every kind.

Alcohol will dissolve Wax, Spermacte, Biliary Calculi, and the strong scented animal resins or resinous extracts, such as Musk and Ambergris. This menstruum, however, does not appear to be so extensively applicable to the analysis of animal substances as of those from the vegetable kingdom.

We have already mentioned that alcohol well rectified may be brought to the specific gravity of 0.825 (at 60° temperature) by a simple distillation, where the process is slowly and carefully conducted, and when only the first third, or half of the spirit which comes over is taken. Chemists have, however, been able to bring it to a higher state of depagation, and consequently a less specific gravity. This is done by adding to the spirit in the alembic or still a quantity of a salt which is itself insoluble in alcohol, and which has such a greedy attraction for water as to be able to separate it from the spirit. Beerhaave recommends for this purpose common salt, hot, dry, and decrepitated. He allows the salt and the spirit to stand together for twelve hours, and then to be heated in a water-bath so as to distill off the spirit by
by a very gentle warmth. The salt is left moist in the still, and contains much of the water of the spirit employed. Some recommend burnt alum in the room of salt, but the bell addition is very dry, hot, and carbonated alkali. A highly dephlegmated alcohol may be prepared in this method without the intermediate process of distillation, only then the spirit will be of reddish colour, and contain that small portion of caustic alkali which is always mixed with common carbonated potash, and which is soluble in ardent spirit. The following is Boerhaave's process: "Take a clean glass body containing common spirit of wine, and add thereto one-third of its weight of pure and dry potash, (carbonated potash), which immediately falls to the bottom. Shake the glass, and the salt directly grows moist and begins to diffuse at the bottom, whilst a red thin liquor floats above it; the more the vessel is shaken, the more liquid is the lower part of the salt, and the more distinctly separated from the upper liquor, nor is it ever possible to mix them together, but upon refting they will immediately separate into two liquors." This process may be continued, he adds, by decanter the upper of the two liquors, which is the alcohol reddened by a little caustic alkali that it holds dissolved) and adding to it more carbonated alkali, till the portion left added will no longer become wet on shaking, a sign that the alcohol is as fully deprived of water as it is capable of being made by means of alkali. As a proof of the high dephlegmation of the spirit by this method, it may be observed, that if a drop or two of water be added to alcohol in which salt of tartar has long remained dry, the alkali immediately becomes moist, and appears to run entirely from the sides of the vessel.

If the alcohol be distilled off the alkaline salt with a gentle heat, the part which comes over will be about the specific gravity of 0.817, at the temperature of 60°, and this is as high a degree of purity as it has been brought to in the accurate experiments made in this country, by Dr. Blagden and others, for the purpose of ascertaining its specific gravity. (See Gravity of Alcohol.)

M. Lowitz, however, affirms, that he has brought alcohol to the specific gravity of 0.791, chiefly by adding, before distillation, a large quantity of alkali so as almost entirely to absorb the spirit.

After distillation, the wet alkaline salt which is left may be dried, and again used for the same purpose; but Boerhaave affirms, that after repeating the use of the same alkali for a number of times, it becomes changed in its nature, and unfit for the purpose. This would imply a decomposition of the alcohol, which deserves to be further examined.

Various tests have been devised for ascertaining the purity of alcohol, and the proportion of water which it contains. A spirit, which is very free from water will, when set fire to, burn away without leaving any residue; if it is of moderate strength it will burn for a certain time, and then become extinguished, and leave a portion of water more or less considerable, according to the degree of dephlegmation; if, on the contrary, it is very weak and watery, it will not kindle at all. This test, however, is by no means accurate, since the heat of the burning spirit will drive off part of the water which should be left in the residuum. Another test is, to drop a small quantity of spirit on a small heap of gunpowder and kindle it. The spirit burns quietly on the surface of the powder till it is all consumed, and the last portion fires the powder if the spirit was pure, but if watery, the powder becomes too damp and will not explode. This test, also, is very inaccurate; for if the powder be drenched with even a strong spirit, it remains too damp to be fired; and if it be only barely moistened, any spirit that will burn will inflame it. A better test is, as we have mentioned, to shake the spirit in a phial with some dry carbonated alkali; but the most accurate of all is to ascertain its specific gravity, and compare it with the density of known quantities of alcohol and water, previously mixed for the purpose of giving a standard of comparison. The very extensive and accurate labours on this subject, conducted by Beaume, Blagden, Goumoun, and other eminent scientific men, belong with more propriety to the subject of Specific Gravity.

It remains for us to mention the chemical nature of alcohol, and the appearances which attend its decomposition. The remarkable circumstance of a vegetable product burning away, without the smallest trace of smoke or fuliginous vapour of any kind, had long engaged the attention of chemists. Junker and Boerhaave threw much light on the subject by remarking, that the product of the combustion of alcohol was always a quantity of pure water; and this fact was more fully illustrated by the experiments of the illustrious Lavoisier. The ready evaporation of alcohol, and the cæse with which its vapour will fill a large vessel, renders it a dangerous experiment to submit a considerable quantity at once to combustion, in oxygen gas confined in any vessel, but this difficulty was surmounted in an ingenious manner. His first experiment was simply to ascertain the quantity of water yielded by the combustion of a given weight of alcohol. This was performed in the following apparatus, contrived by M. Meusnier. See Plates of Chemistry, fig. 10.

E F is a worm, contained in the cooler A B C D. To the upper part of the worm E, the chimney G H is fixed, which is composed of two tubes, one within the other, the inner of which is a continuation of the worm, and the outer one is a cæse of tin plate, which surrounds it at about an inch distance, and the interval is filled with sand. At the inferior extremity K of the inner tube, a glass tube is fixed, to which is adopted the argand lamp J M, for burning alcohol.

Things being thus disposed, and the lamp being filled with a determinate quantity of alcohol, it is set on fire; the water which is formed during combustion, rises in the chimney K E, and being condensed in the worm, runs out at its extremity F, into the bottle P. The use of the outer tube G H, and of the sand between it and the inner tube, is to prevent the latter which proceeds from the worm, from being cooled during combustion, to fall back on the lamp instead of passing on into the worm.

This apparatus, though not perfect, has the advantage of enabling the chemist to operate with larger quantities than can be admitted in the more accurate experiments on combustion, and by it, the above-mentioned chemists were able to establish the important fact, that the quantity of water collected by the combustion of alcohol very sensibly exceeds the quantity of the alcohol which is consumed. The product of water must vary according to the strength of the alcohol, and the care of conducting the experiment; but it is so considerable, that from sixteen ounces of ardent spirit, Lavoisier obtained eighteen ounces and a half of pure water. There is besides, however, a large quantity of carbonic acid produced in this experiment which escapes, and cannot be eliminated by this apparatus. Some of this gas unites with the water which is collected, and causes it to precipitate lime-water.

Having thus ascertained in a general way the products of
of the combustion of alcohol, Lavoisier proceeded to repeat the experiment, in vessels which might determine the result with accuracy. He employed, for this purpose, a large bell glass, holding from 700 to 800 cubic inches, and inverted over a mercurial trough. A small lamp filled with a known weight of alcohol, was introduced under the glafs swimming on the surface of the mercury, and the wick was armed with a very minute portion of phlogiston. The atmospheric air within the glafs was sucked out by a syphon, till the mercury rose to a certain height which was noted; and the phlogistons on the wick being then kindled by a hot iron, the spirit soon took fire. As the air within the glafs would be soon consumed, and the inflammation of the spirit stopped, a constant supply of oxygen gas was lent into the glafs through a syphon tube, connected with a resevoir of this gas, and which passed under the mercury into the glafs where the combustion was going on. Great precaution was required not to let in more oxygen than was barely necessary to keep up the combustion; otherwise the heat, volatilizing part of the spirit, would have filled the glafs with vapour of alcohol, and this mixing with the oxygen, would have suddenly exploded by the combustion. In this, as in other respects, the combustion of alcohol strikingly resembles that of pure hydrogen gas. The experiment was at last halted by the quantity of carbonic acid generated; and on examining the results, (proper corrections being made for pressure and temperature) it was found, that 93.5 grains of alcohol and 116.32 grains of oxygen had been consumed. The products of these were 94.8 grains of carbonic acid and 106.2 grains of water, which last therefore exceeded by 12.7 grains the quantity of alcohol employed. From these data, and from previous experiments (wherein Lavoisier estimated, that 100 grains of oxygen take up 58.8 grains of carbon, for the production of carbonic acid gas; and that the same quantity of oxygen takes up 17.64 grains of hydrogen for the production of water), he concluded the composition of alcohol to be the following,

<table>
<thead>
<tr>
<th>Component</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon</td>
<td>C2H5</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>H2</td>
</tr>
<tr>
<td>Water</td>
<td>H2O</td>
</tr>
</tbody>
</table>

We may observe, however, that the result of this experiment can only be considered as an approximation to the truth, since the estimation of the component parts of alcohol here given, does no agree with that which is deduced by the same chemist, from the result of vinous fermentation. Neither is there any light thrown on the mode of union between the component parts, and their degree of oxygenation as they exist in the spirit before combustion.

Alcohol has likewise been more directly decomposed without the assistance of oxygen gas. Dr. Priestley procured inflammable air by pulling the electric spark through spirit of wine. But the most striking experiments on this subject, performed by this excellent philosopher, were the decomposition of spirit by pulling it through red-hot tubes, both of earth and metal. He first transmitted two ounce measures of alcohol, reduced to vapour by boiling, through an ignited porcelain tube, and procured 1500 ounce measures of air, which was all inflammable without a "mixture of fixed air in it," and which burned with a "blue lambent flame." (We here quote the very words of the author, which the writer of the article Alcool, in the Encyclopédie Méthodique, has made to correspond with the experiments of Lavoisier, by adopting the following singular translation—M. Priestley, en faisant passer de l'alcool dans un tube d'argile rongé au feu, en a retiré du gaz hydrogène mêlé de gaz acide carbonique.) Dr. Priestley's next experiments are still more curious, as they determine the existence of carbonaceous matter in spirit of wine. Having found interesting results from the transmutation of the vapour of water through a heated copper tube, he repeated the experiments, only substituting the vapour of spirit of wine for that of water. "In this case," he observes, "the vapour of the spirit had no sooner entered the hot copper tube, than it was perfectly allonished at the rapid production of air. It resembled the blowing of belows. But I had not used four ounces of the spirit of wine before I very unexpectedly found that the tube was perforated in several places, and presently afterwards it was so far destroyed, that in attempting to remove it from the fire, it actually fell in pieces. The inside was full of a black dusty matter, resembling lamp-black." He then varied the experiment by using earthen tubes, placing within them copper filings, and transmitting the vapour of alcohol. The copper was as before, converted into a black friable substance, obviously produced by the addition of carbonaceous matter furnished by one part of the spirit, whilst the other part appeared in the form of a copious stream of inflammable air. It is however by no means the whole of the charcoal of the alcohol which is detained by the copper, for much of it escapes mixed with the inflammable air in the form of fine feet, giving the gas the appearance of a dense black cloud; and when the tube is strongly heated, this volatilized charcoal will give an uniform black coating to any bulbous or large vessel in which the gas is received. Dr. Priestley found some other metals to undergo a similar change by the vapour of alcohol, but none in so striking a manner as copper. On heating some of this charcoal of copper, as he calls it, in oxygen gas, he found it to burn very readily to a certain point, after which the remainder could not be again kindled. The gas produced by the combustion, was pure fixed air or carbonic acid.

The excellent Dutch chemists, of the Teylerian institution, Van Marum and colleagues, repeated Dr. Priestley's experiments with great accuracy, and found the same results in every essential particular. They employed, as well as Dr. Priestley, Wedgwood's porcelain tubes, which they enclosed in iron tubes to prevent the sudden action of the fire which is apt to crack them. One extremity of the earthen tube received a small retort in which was put the alcohol, and the other entered a metallic serpentine tube, immersed in a refrigeratory, and provided at the further end with a bottle to receive the gaseous products. In the first experiment which was performed, an ounce and a half of alcohol in vapour had been transmitted through the heated copper, and had produced about six cubic feet of inflammable air.

In the second experiment the heat was greater, and the production of the gas more rapid. In all, the copper was reduced to a black and very friable sublimate, which fell to pieces between the fingers. The proportion of charcoal added to the copper by the experiments, varied at different times apparently owing to the greater or less rapidity with which the process was conducted. Dr. Priestley had united 456 grains of charcoal to 28 of copper, in one instance; and 508 to 19, in another; but the Dutch chemists found a much less proportion of charcoal, being only an addition of 292 grains to 378 of copper in one case, and in another, 180 of charcoal to 612 of the metal. The great difference in the results is, however, of little consequence in attempt-
A L C.


Alcohol is sometimes also used for a very fine, impalpable powder, which women in the East make use of as a kind of paint. Kohl is a general term applied to a substance applied to the eye-ball, on the inside of the eye-lids, in the form of a powder finely levigated. That which is employed for ornament is called simply al kohl, or istiphanah; when other ingredients, as flowers of olumbam, amber, and the like, are added, on account of some particular disorders, the kohl is distinguished by some appropriate epithet. Dr. Shaw, in his Travels, speaking of the women in Barbary, says, that none of these ladies think themselves completely dressed, until they have tinged their hair and edges of their eye-lids with al-korbal, the powder of lead-ore.

Lady Montague (Letters, vol. ii. p. 32) takes notice of this custom among the Eastern women; and in her slightly manner, the supplices our English ladies would be overjoyed to know this secret. This ore is called at Aleppo, called Stibium by the ancients, but very different from antimony, is brought from Persia, and is prepared by roasting it in a quince, an apple, or a truffle, then adding a few drops of oil of almonds, it is ground to a libitive powder on a marble. Of late years the lead ore, brought from England, under the name of Arcifoglio, has been used instead of the istiphanah. The quantity of kohl contained in the East is incredibly great. It has been said by one of their poets, in allusion to the probe used for applying the powder, and the mountains where the mineral is found, "that the mountains have been worn away by a bodkin." This probe or bodkin, called meed, is made of ivory, silver, or wood; it is dipped in water, and when a little of the powder has been sprinkled on it, it is applied horizontally to the eye, and the eye-lids being filled with it, the probe is drawn between them, leaving the inside tinged, and a black rim all round the edge. The Roman Satyril aludes to this custom, as well as that of blackening the eyebrows:

"Illa supercilium malida fuliginem taceat
Obliqua product acu, pinguitque trementes
Attollens oculos."

Juvenal, Sat. ii. v. 67, and Cafaubon's note.

The kohl is also used by the men for strengthening the sight, and preventing various disorders of the eye, for which purpose different ingredients are occasionally added. It is also applied to the eyes of children, as soon as they are born, and is renewed at the interval of a few days through the several periods of their adolescence. The use of the kohl is of very ancient date. Passages relative to it, in sacred history, may be seen in Shaw, (Travels, p. 239), Harmer, (Observations, vol. ii. p. 405), and Lowth's Notes on Isaiah, chap. iii. v. 16. Harmer conceives that the riches of the eye, as it is in our v. 8, which the dying patriarch mentions in addressing Judith, (Gen. xxix. 14), is to be explained by this usage. Dr. Ruffell observes, on a passage in Xenophon referred to by Shaw, that blackening the eyes, though a custom among the Medes, was not at that time in use among the Persians; for Cyrus, among other things, seems to have been surprised at the painted eyes of his grandfather Alyattes. Cyrop. i. p. 8. See Ruffell's Aleppo, vol. i. p. 337, Ed. 1794. From this impalpable powder the name was transferred to other fabric powders, and afterwards to spirits of wine exalted to its highest purity and perfection. See Porphyrization.

Alcohol, in the Arabian Alecho, is when a heavy

flow-paced
flowed impoverished planet receives another lighter one within its orb, so as to come in conjunction therewith.

Alcohol *Moris*, filings of steel reduced to an impalpable powder, by turning it into dust with urine, then levigating it, and mixing it with a large quantity of water; that is, about a gallon to two pounds and a half of filings. After it has stood a quarter of an hour, the upper part of the water is to be poured off, and evaporated to a dryness. The powder at the bottom is to be put into a paper, in the form of a fugar-loaf, and washed, by gradually pouring in hot-water, till it is freed from the minute salt. With regard to the remaining gross powder, the same processes is to be repeated.

Mufgrave has a great opinion of this preparation, as a remedy to bring the gout from the nobler parts to the joints. He prefers it thus: take of *alcohol moris* from five to ten grains, *therian* *Andromachi* from half a scruple to one dram, mix these with as much syrup of clove-july-flowers, as is sufficient to make a bolus.

**ALCOHOLIZATION**, in *Chemistry*, the rectification of a vinous spirit.

This is otherwise called *alcolization*.

**Alcolization**, according to Starkey, denotes the circu-lation of a volatile spirit on a fixed alkali, till such time as out of the two arise one neutral body different from both the former. *Alcolization* is one way of volatilizing alkalis.

**Alcoholization** is also used for *Pulverization*.

**ALCOL**, or *Ancol*, in * Geography*, lies on the coast of Barbary, on the easterly side of the Cape de Tence, under which there is a small bay and good road, but open to the north and north-east; so that when a Levant gale is expected, ships should move round the cape to the west-side.

**ALCOLA** is used by *alcoholis*, for the tartar of urine. *Alcoa* is found in three different forms, viz. 1. Resolved, or reduced into an impalpable substance. 2. Sandy, or voided in the appearance of small grains of whitish or reddish sand. 3. Maculatious, or可视ে.

**ALCOLEA**, in * Geography*, a small town of Spain, in New Castile, situated in a fine county, a few leagues north of Madrid. N. lat. 40° 40'. W. long. 3° 6'.

**ALCOLEA** is also a town of Spain, in Andalusia, on the banks of the Guadalquivir, six miles north of Carmona.

**ALCOLEA** is also another town of Spain, in Aragon, on the confines of Castile, south of Balbasro, and north-east of the river Yzuela. N. lat. 41° 30'. E. long. 2° 14'.


**ALCONE** was also a town of the island of Ithaca, whence Ulysses was called Alcmeenius.

**ALCON**, in * Biography*, a surgeon of great eminence in the first century of the Christian era, acquired considerable wealth in his profession, under the Emperor Claudius. He is said to have been expert in the art of reducing fractured, or luxated bones, and in curing hernias by incision. He is probably the person mentioned by Martial, in the following epigram, lib. xi. ep. 85.

Mitior implicitas Alecon fecat enterocelas,
Fraxaque fabilibi dedolo offa manu.

See more of him in Le Clerc’s Hist. de la Medicine, p. 581.

**Alcon**, in * Entomology*, a species of *Papilio Philobus*, with entire cerulean wings, brown margin, below cinereous brown, and numerous ociliary points; found in Austria.

**ALCOR**, in *Astronomy*, a small star adjoining to the large bright one in the middle of the tail of *Ursa major*.

The word is Arabic. It is a proverb among the Ara-

**ALCORAN**, or *AL KORAN*, the Mahometan Scripture or Bible, containing the revelations, doctrines, and prophecies, of the pretended prophet Mahomet.

It is vulgarly called *Alkoran*; but the first syllable of the word is nothing more than an article signifying the; and therefore the true orthography of the word is *Al Koran*, or *Al Koran*, that is, the Koran. It is derived from the Arabic word *luran*, to read, and signifies the reading; or what ought to be read. Thus Mahomet gave it this title by way of eminence, in imitation of the Jews and Christians, who call the Old and New Testament, *Scripture*; and the Bible, i.e. the book; and *Al Dikir*, the adoration.

Besides this peculiar name, the Koran is also honoured with several appellations common to other books of Scripture; as *Al Farkan* from the verb *faraka*, to divide or distinguish, denoting a fection or portion of scripture. It is also called *Al Muhafs*, the volume, and *Al Kitab*, the book, by way of eminence.

It is the common opinion among us, that Mahomet, affiled by one Sergius, a monk, composed this book; but the Misulfemen believe it as an article of their faith, that the prophet, who, they say, was an illiterate man, had no concern in inditing it; but that it was given him by God, who, to that end, made use of the ministry of the angel Gabriel; that, however, it was communicated to him by little and little, a verse at a time, and in different places, during the course of twenty-three years:—And hence, say they, proceed the disorder and confusion visible in the work:—which, in truth, are so great, that all their doctors had never been able to adjust them. For Mahomet, or rather his copyists, having put all these loose verses promiscuously in a book together, it was impossible ever to retrieve the order wherein they were delivered.

Those twenty-three years which the angel employed in conveying the *Koran* to Mahomet are of wonderful service to his followers; inasmuch as they furnished them with an answer to such as tax them with the glaring contradictions of which the book is full: those contradictions they piously father upon God himself; alledging, that, in the course of so long a time, he repealed and altered several doctrines and precepts which the prophet had before received of him.

The Mahometan doctors obviate any objection deduced from these contradictory passages by the doctrine of abrogation; and they diluting the abrogated passages into three kinds; the *jeft*, where the letter and sense are both abrogated; the *second*, where the letter only is abrogated, but the sense remains; and the *third*, where the sense is abrogated, though the letter remains. Of the first kind were several verses, which by the tradition of Ans Ebn Malec, were in the prophet’s life-time read in the chapter of repentance, but are not now extant. Another instance of this kind we trace from the tradition of Abdallah Ebn Mufaid, who reported that the prophet gave him a verse to read which he wrote down, but the next morning looking in his book, he found it was vanished, and the leaf blank; upon acquainting Mahomet with this circumstance, he was assured by the prophet that the verse was revoked the same night. Of the second kind is the verse called the verse of *foning*, which, according to the tradition of Omar, afterwards Khalif, was extant, while Mahomet was living, though it be not now to be found. Of the last kind are observed several verses, in 63 different chapters, to the number of 225: such as the precepts of turning in prayer to Jerusalem, falling
failing after the old custom, forbearance towards idolaters, avoiding the ignorant, and the like.

M. D'Herbelot thinks it probable, that when the heretics of the Nestorians, Eutychians, &c. had been condemned by ecclesiastical councils, many bishops, priests, monks, &c. being driven into the deserts of Arabia and Egypt, furnished the impostor with passages, and crude ill-conceived doctrines, out of the scriptures; and that it was hence that the Koran became so full of the wild and erroneous opinions of those heretics.

The Jews also, who were very numerous in Arabia, furnished materials for the Koran; nor is it without some reason that they boast twelve of their chief doctors to have been the authors of this work.

The Koran, it is to be observed, while Mahomet lived, was only kept in loose sheets; his successor, Abubeker, first collected the contents into a volume, not only from the palm leaves and skins on which they had been written, but also from the mouths of those who had committed them to memory; and when the transcript was completed, entrusted the keeping of it to Haftha, the daughter of Omar, one of the widows of Mahomet, in order to be consulted as an original; and there being a good deal of diversity between the several copies already dispersed throughout the provinces, Ottoman, or Othman, successor of Abubeker, in the 30th year of the Hegira, procured a great number of copies to be taken from that of Haftha; at the same time supplanting all the others not conformable to the original.

The chief differences, in the present copies of this book, consist in the points, which were not in use in the time of Mahomet and his immediate successors, but were added since, to ascertain the reading; after the example of the Masoretes, who added the like points to the Hebrew texts of scripture.

The Koran is divided into 114 suras, or chapters, of very unequal length; which, in the manuscript copies, are not distinguished by their numerical order, though they are actually numbered in Sale's edition, but by particular titles, which, except the initial chapter, are taken sometimes from a particular matter treated of, or prefixed mentioned therein, but usually from the first word of note. Some chapters have two or more titles, occasioned by the difference of the copies. Some of the chapters having been revealed at Mecca and others at Medina, this difference is noted in the title. Several of them are said to have been revealed partly at Mecca and partly at Medina; and as to others, it is not agreed among commentators to which of these two places they belong. The suras are divided into little verses, in Arabic, called ayats, signs or wonders, which are all compos'd in a broken interrupted style, resembling prose rather than verse. Many of these have their particular titles formed in the same manner as those of the chapters.

Befidia these unequal divisions of chapter and verse, the Koran is divided into 60 equal portions, called aHzab, each of which is again subdivided into four equal parts. But it is more usually divided into 30 fections, named azza, each of twice the length of the former, and subdivided in like manner into four parts. These divisions are for the use of the readers of the Koran in the royal temples, or in the adjoining chapels where the emperors and great men are interested. Of these readers, there are 50 belonging to every chapel, and each reads his section every day, so that the whole Koran is read over once a day. Under the title, at the head of every chapter, except the ninth, is prefixed the following folium form, called by the Mahometans the hijmillah, in the name of the most merciful God;

which form, as well as the titles, are considered by some commentators of divine original; though others believe them to be human additions.

This form they constantly place at the beginning of all their books and writings, in general, as a peculiar and characteristic mark of their religion; and it is deemed a sort of impropriety to omit it. There are 29 chapters of the Koran, which have this peculiarity, that they begin with certain letters of the alphabet; one with a single one, and others with more. These letters are considered as peculiar marks of the Koran; and as concealing profound mysteries, the certain understanding of which, the more intelligent confesses, has not been communicated to any mortal, their prophet alone excepted.

There are seven principal editions of the Koran; two at Medina, one at Mecca, one at Cufa, one at Bassora, one in Syria, and the common, or vulgate edition. The first contains 6000 verses; the second and fifth 6214; the third 6219; the fourth 6236; the fifth 6226; and the last 6225; but the number of words and letters is the same in all, viz. 77629 words, and 32305 letters.

The Koran is held not only of divine original, but eternal and uncreated, remaining, as some express it, in the very essence of God. The first transcript has been from everlasting by God's throne, written on a table of sult bigaes, in which are also recorded the divine decrees, past and future. A copy from this table, in one volume, on paper, was sent down to the lowest heaven, by the ministry of the angel Gabriel, in the month of Ramadan, on the night of power; from whence it was delivered out by Gabriel to Mahomet, in parcels, some at Mecca, and some at Medina; though he had the confirmation of seeing the whole once a year, and in the last year of his life twice. Some few chapters were delivered entire, the greater part only in separate portions, which were written down from time to time by the prophet's amanuensis, in such a manner as any particular chapter, as he directed. The first parcel that was revealed, was the first five verses of the 93rd chapter, which the prophet received in a cave of mount Harah, near Mecca.

Although the Sunnites or Orthodox believe, that the Koran is uncreated and eternal, and Mahomet himself is said to have pronounced him an infidel who affir med the contrary, yet several have been of a different opinion; particularly the sect of the Mo'tazalites, and the followers of Ibrahimb. Sobe Abn Mufa, sumanamed Al-Mozdar, who accused those who held the Koran to be uncreated, of infidelity, as affor ters of two eternal beings. The dispute, which occasioned much warm contention, was at length compromised by Al Ghazali, who maintained that the original idea of the Koran only is really in God, and consequently co-existent and co-eternal with him, but that the copies are created and the work of man.

The Koran is universally allowed to be written with the utmost elegance and purity of language, in the dialect of the tribe of Koreith, the most noble and polite of all the Arabsians, but with some mixture, though very rarely, of other dialects. It is confessedly the standard of the Arabic tongue; and as the more orthodox believe, and are taught by the book itself, inimitable by any human pen; and therefore insinuated as a permanent miracle, greater than that of raising the dead, and of itself sufficient to convince the world of its divine original. Accordingly, Mahomet himself appealed to this miracle as the chief confirmation of his mission; publickly challenging the most eloquent man in Arabia, then abounding with persons whole sole
and admired it was to excel in elegance of style and composition, to produce even a single chapter that might be compared with it. Brevity, there have not been wanting, even among the Mahometans themselves, who have asserted that there is nothing miraculous in this book with respect to style or composition, excepting only the prophetic relations of things past, and predictions of things to come; and that God had left men to their natural liberty, and not restrained them in that particular, the Arabsians could have composed something not only equal, but superior to the Koran in elegance, method, and purity of language. This was the opinion of the Motazalites, and in particular of Al Mezdar and Al Nooham.

The style of the Koran is generally beautiful and fine, especially where it imitates the prophet's manner and scripture-philo
tology. It is concise and often concise, adorned with bold figures after the cadet taste, enriched with florid and sententious expressions, and in many places, especially where the majesty and attributes of God are described, sublime and magnificent. Although it be written in prose, yet the sentences generally conclude in a long continued rhyme, for the sake of which the sense is often interrupted, and unnecessary repetitions are too frequently made. But this kind of jingling delights the Arabsians; and they are fond of employing it in their most elaborate compositions; which they confide with frequent citations from the Koran, and additions to it. To this pomp and harmony of expression, force have ascribed the whole force and effect of the Koran, whilst others suppose, that the eulogial pleurures of paradise, which are so often displayed to the imagination of the reader, are the chief allurements to which it owes its efficacy.

"By the advocates of Mahometanism," says a learned and ingenious writer, "the Koran has been always held forth as the greatest of miracles, and equally stupendous with the act of raising the dead. The miracles of Moses and Jesus, they say, were transient and temporary; but that of the Koran is permanent and perpetual; and therefore far surpasses all the miraculous events of preceding ages. We will not detract from the real merit of the Koran; we allow it to be generally elegant, and often sublime; but at the same time, we reject with disdain its arrogant pretense to any thing supernatural. The real excellence of the work is to be referred to natural and visible causes." Besides the general impressions of admiration and astonishment, which the pretended prophet had produced on the minds of his followers, by the external sanctity of his demeanour, and his long and splendid series of victories, Mahomet found, in the language of Arabia, a language extremely loved and diligently cultivated, by the people to whom it was vernacular, "advantages which were never enjoyed by any former or succeeding prophet. It requires not the eye of a philosopher, to discover in every fold and country a principle of national pride; and if we look back for many ages in the history of the Arabsians, we shall easily perceive that pride among them invariably to have confined in the knowledge and improvement of their native language. The Arabic, which has been justly esteemed the most copious of the eastern tongues; which had existed from the remotest antiquity; which had been embellished by numberless poets, and refined by the constant exercise of the natives, was the most serviceable instrument which Mahomet employed in planting his new religion among them. Admirably adapted by its unrivaled harmony, and by its cadence variety to

add painting to expansion, and to pursue the imagination in its unbounded flight, it became in the hands of Mahomet an irresistible charm, to blind the judgment, and to captivate the fancy of his followers." Of that description of men, who first composed the adherents of Mahomet, and to whom the Koran was addressed, few, probably, were able to pass a very accurate judgment on the property of the sentiments, or on the beauty of the diction: but all could judge of the military abilities of their leader; and in the midst of their admiration, it is not difficult to conceive, that they would ascribe to his compositions every imaginary beauty of inspired language. The shepheard and the fiddler, though awake to the charms of their wild but beautiful compositions, in which they celebrated their favourite occupations of love or war, were yet little able to criticise any other works than those which were addressed to the imagination or the heart; to abstract reasonings on the attributes and dispensations of the Deity, to the comparative excellencies of rival religions, to the consistency of any one religious system in all its parts, and to the force of its various proofs, they were quite inattentive. In such a situation, the appearance of a work, which professed something like wisdom and constancy; which prescribed the rules, and illustrated the duties of life; and which contained the principles of a new and comparatively sublime theology, independently of its real and permanent merit, was likely to excite their admiration, and to become the standard of future composition.

"In the first periods of the literature of every country, something of this kind has happened. The father of Greek poetry very obviously influenced the taste and imitation of his countrymen. The modern nations of Europe all possess some original author, who, rising from the dark and obscure periods of former ages, has begun the career of composition, and tinctured with the character of his own imagination the stream which has flowed through his posterity. But the prophet of Arabia had, in this respect, advantages peculiar to himself. His compositions were not to his followers the works of man, but the genuine language of heaven which had sent him. They were not confined, therefore, to that admiration, which is so liberally bestowed on the earliest productions of genius; or to that fond attachment with which men every where regard the original compositions of their country; but with their admiration they blended their piety. To know and to feel the beauties of the Koran, was in some respect to share in the temple of heaven; and he who was most affected with admiration in the perusal of its beauties, seemed most truly the object of that mercy, which had given it to ignorant men. The Koran, therefore, became naturally and necessarily the standard of taste. With a language thus hollowed in their imaginations, they were too well satisfied, either to dispute its elegance, or improve its structure. In succeeding ages the additional function of antiquity or prescription, was given to those compositions which their fathers had admired; and while the belief of its divine original continues, that admiration which has thus become the test and the duty of the faithful, can neither be altered nor diminished."

"When, therefore, we consider these peculiar advantages of the Koran, we have no reason to be surprised at the admiration in which it is held. But, if descending to a more minute investigation of it, we consider its perpetual inconstancy and absurdity, we shall indeed have cause for astonishment at that weakness of humanity, which could ever have received such impostures as the work of the Deity.

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The first praise of all the productions of genius is invention. That quality of the mind, which, by the extent and quickness of its views, is capable of the largest conceptions, and of forming new combinations of objects the most distant and unusual. But the Koran bears little impression of this transcendent character. Its materials are wholly borrowed from the Jewish and Chaldaic scriptures, from the Talmudical legends, and apocryphal gores, then current in the East, and from the traditions and fables which abounded in Arabia. The materials, collected from these several sources, are here heaped together, with perpetual and needless repetitions, without any artful principle or visible connection. When a great part of the life of Mahomet had been spent in preparatory meditation on the system he was about to establish, his chapters were drawn out slowly and separately during the long period of 23 years. Yet this defective in its structure, and not least exceptionable in its doctrines, was the work which Mahomet delivered to his followers as the oracles of God.

The most prominent feature of the Koran, that point of excellence in which the partiality of its admirers has ever delighted to view it, is the sublime notion it generally imprints of the nature and attributes of God. If its author had really derived these just conceptions from the inspiration of that being, whom they attempt to describe, they would not have been surmounted, as they now are, on every side, with error and absurdity. But it might easily be proved, that whatever it justly defines of the divine attributes, was borrowed from our holy scripture; which even from its first promulgation, and especially from the completion of the new testament, has extended the views, and enlightened the understandings of mankind; and thus furnished them with arms, which have too often been ineffectually turned against itself by its ungenerous enemies.

In this instance particularly, the copy is far below the great original, both in the propriety of its images, and the force of its descriptions. Our holy scriptures are the only compositions that can enable the dim light of mortality to penetrate into the invisible world, and to behold a glimpse of the divine perfections. Accordingly, when they would refer us to the happiness of heaven, they describe it, not by any thing minute and particular, but by something general and great: something, that without descending to any determinate object, may, at once by its beauty and immensity, excite our wishes and elevate our affections. Though, in the prophetic and evangelical writings, the joys that shall attend us in a future state are often mentioned with ardent admiration, they are expressed rather by allusions than similitude, rather by indefinite and figurative terms, than by any thing fixed and determinate. ¹ Eye hath not seen, nor ear heard, neither hath entered into the heart of man the things which God hath prepared for them that love him. 1 Cor. ii. 9.

What a reverence and astonishment does this passage excite in every hearer of tale and piety! What energy, and at the same time, what simplicity in the expression! How sublime, and at the same time, how obvious is the imagery! Different was the conduct of Mahomet in his descriptions of heaven and of paradise. Unaffected by the necessary influence of virtuous intentions and divine inspiration, he was neither definite, nor indeed able to excite the minds of men to sublime conceptions or to rational expectations. By attempting to explain what is inconceivable, to describe what is ineffable, and to materialize what in itself is spiritual, he absurdly and impiously defied to substantiate the purity of the divine essence. Thus he fabricated a sytem of incoherence, a religion of depravity, totally repugnant indeed to the nature of that Being, who, as he pretended, was its object; but therefore more liable to accord with the appetites and conceptions of a corrupted and fallen age.

That I may not appear," says the preacher, "to exalt our scriptures thus far above the Koran by an unreasonable preference, I shall produce a part of the said chapter of the latter, which is deservedly admired by the Mahometans, who wear it embroidered on their ornaments, and recite it in their prayers." God! there is to God but he; the living, the self-sufficing; neither number nor speech seizeth him: to him belongeth whatever is in heaven and on earth. Who is he that can intercourse with him but through his good pleasure? He knoweth that which is past, and that which is to come. His throne is extended over heaven and earth, and the preservation of both is to him no burden: he is the high, the mighty. To this description who can refine the praise of magnificence? Part of that magnificence, however, is to be referred to that verse of the psalmist, whence it was borrowed: ³ He that keepeth Israel, shall neither number nor speech. Ps. cxli. 4. But if we compare it with that other passage of the same inspired psalmist, all his boasted grandeur is at once obscured, and lost in the blaze of a greater light. ³ O my God, take me not away in the midst of my days: thy years are throughout all generations. Of old hast thou laid the foundations of the earth; and the heavens are the works of thy hands. They shall perish, but thou shalt endure; yea, all of them shall wax old, as doth a garment: as a vesture shalt thou change them, and they shall be changed; but thou art the same, and thy years shall not fail.

The Koran, therefore, upon a retrospective view of these several circumstances, far from supporting its arrogant claim to a supernatural work, sinks below the level of many compositions confidedly of human original; and still lower does it fall in our estimation, when compared with that pure and perfect pattern which we justly admire in the scriptures of truth. It is then abundantly apparent that no miracle either was externally performed for the support, or is internally involved in the composition, of the Mahometan revelation." White's Sermons, containing a View of Chriftianity and Mahometanism, in their history, their evidence, and their effects, p. 236-271. Ed. 2.

The general aim of the Koran was to unite the professors of the three different religions, then followed in Arabia, Idolaters, Jews, and Chaldaics, in the knowledge and worship of one God, under the sanction of certain laws, and the outward signs of ceremonies, partly of ancient, and partly of novel institution, enforced by the consideration of rewards and punishments, both temporal and eternal; and to bring all to the obedience of Mahomet, as the prophet and ambassador of God, who was to establish the true religion on earth, and be acknowledged chief pontiff in spiritual matters as well as supreme prince in temporal. The chief point therefore inculcated in the Koran is the unity of God, to restore which the prophet pretended was the chief end of his mission: it being laid down by him as a fundamental truth, that there never was nor ever can be more than one true orthodox religion. The reef is taken up in preferring necessary laws and directions, frequent admonitions to moral and divine virtues, the worship and reverence of the Supreme Being, and reparation to his will. One of their most learned commentators distinguishes the contents of the Koran into allegorical and literal; under the former are comprehended all the obscure, parabolical, and

¹ White's Sermons, containing a View of Chriftianity and Mahometanism, in their history, their evidence, and their effects, p. 236-271. Ed. 2.

² White's Sermons, containing a View of Chriftianity and Mahometanism, in their history, their evidence, and their effects, p. 236-271. Ed. 2.

³ White's Sermons, containing a View of Chriftianity and Mahometanism, in their history, their evidence, and their effects, p. 236-271. Ed. 2.
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arbitrary passages, with such as are repealed or abrogated; the latter, such as are clear, and in full force. See Mahometans.

Among the Mahometans this book is in the greatest reverence and effect. The Musulmen dare not so much as touch the Koran without being first washed, or legally purified; to prevent which, an inscription is put on the cover or label: "Let none touch it, but they who are clean." It is read with great care and respect, being never held below the girdle. They fear by it, take oaths from it on all weighty occasions, carry it with them to war, write sentences of it in their banners, adorn it with gold and precious stones, and knowingly suffer it not to be in the possession of any of a different religion. Some say that it is imitable even with death in a Christian to touch it; others, that the veneration of the Musulmen leads them to condemn the translating it into any other language as a profanation; but these seem to be aggravations. The Mahometans have taken care to have their scripture translated into the Persian, the Javan, the Mahayan, and other languages; though out of respect to the original, these versions are generally, if not always, interdicted. It has been often published in Europe, in Arabic and in other languages. Maracci published it in Arabic and Latin, at Padua, in 1698, fol. with a partial and often silly confusion. The German translation of Boyfen was printed at Halle, in 1713; the French of Savary, at Paris, in 1782; and the English of Sale, at London, in 1734.

The number of commentaries on the Koran is so large that the bare titles would make a huge volume.—Ben Of
diary has written the history of them, intitled, Tarikh Ben Of
diary. The principal among them are, Reishoiri Thaa
diary, Zamalechfiari, and Baci.

Beside the Koran which is the basis of the Mahometan faith, they have also a book containing their traditions, which they call Senan.

The Mahometans have a positive theology, built on the Koran and tradition; as well as a fehical one, built on
reason. They have likewise their casuists, and a kind of canon law; wherein they distinguish between what is of
divine, and what of positive right.

They have their beneficiaries too, chaplains, almoners, and canons, who read a chapter every day out of the Koran, in the mosques; and have prebends annexed to their office.

The harif or the mosque is what we call the parson of the parish; and the febees are the preachers, who take their text
out of the Alcoran. See Sale's Translation of the Koran, preliminary discourse.

Alcoran is also used in a more limited sense, for a portion or chapter of the Koran.

In which sense, the word is synonymous with sura.

Alcoran is also figuratively applied to certain other books full of impieties and impossibilities.

In this sense we meet with the Alcoran of the Cordeliers, which has made a great noise wherein St. Francis is extra
vagantly magnified, and put on a level with Jesus Christ.

Alcoran, among the Persians, likewise signifies a kind of tower, or fleaee, very high and narrow, surrounded without by two or three galleries, one over another; whence the Morwites, a sort of priests, repeat their prayers thrice a day, with a very loud voice; making the tour of the gallery all the while, that they may be the better heard all round.

Alcoranists, among Mahometans, those who adhere strictly to the letter or text of the Alcoran, from an opinion of its ultimate sufficiency and perfection. The Persians are generally Alcoranists, as admitting the Alcoran alone for their rule of faith. The Turks, Tartars, Arabs, &c. besides the Alcoran, admit a multitude of traditions.

The Alcoranists, among Mahometans, amount to much the same with the talmudists among the Jews. The Alcoranists can find nothing excellent out of the Alcoran; are enemies of philosophers, metaphysicians, and scholastic writers. With them the Alcoran is every thing.

AUCUCHETE, in Geography, a town of Portugal, in the province of Elbemadura, on the south coast of the Tagus, ten miles to the south of Lisbon. N. lat. 38° 55'. W. long. 8° 26'.

AULCOT, a town of Portugal, in the province of Aparece, on the border of Alentejo, defended by a castle, and containing six parishes. It is situated on the Guadiana, and six and one-half leagues north-north-east of Tavira.

ALCOVE, in Architecture, a recess in a sleeping room, made for the purpose of receiving the bed. It is also an arched seat in a garden.

The word is derived from the Spanish alcoba, which, according to the older Dictionaries of that language, signifies a vaulted cabinet in a chamber, open on one side, without windows, and large enough to contain a bed. The Spanish word is derived from the Arabic al-kubbah, the alcove, the place for the bed, and al-kubbah is probably from al-kabah, the tent, or more probably from kabab, sleek, al-kabah, the bed, alkaab the cave. The relation of these words is curious. According to the Spanish description an alcove is not unlike a cave or recess in a rock, in which a wandering Arab might make his abide for the night.

Alcoves in ordinary rooms are square recesses conformable to the definition we have given, and are finished in a style corresponding with the apartments to which they belong, and with flat or vaulted ceilings, as table may direct, or the height of the alcove may require. But in chambers of greater magnificence, and rooms of parade, they are not always alcoves; but more properly a portion of a large apartment separated from the rest by an arch, or bulblustrade, a screen of columns, or some other decorations, and elevated a few steps above the general level of the floor. On this elevated platform, a flat bed is usually placed, and sometimes seats and sofas to entertain company. This is what the French architects denominate an alcove. The recess to which the English have appropriated the term, and which is conformable to its primary signification, the French denominate a niche, as may be seen in Blondel de la Decoration des Edifices en general. (See Plate 1. of Architecture.)

The authors of the Encyclopedic Methodique are of opinion, that alcoves, were in use among the ancients, and this would be indisputably true if we could receive the term in the lax sense in which they have explained it. But we cannot give the name of alcoves to the enclosures which they mention, confining of a kind of moveable balustrade hung round with drapery, and placed in any part of a chamber at pleasure, nor to those draperies supported by terms, or affixed to the wall, which frequently occur in antique bas-reliefs. It must be confessed that we know very little of the private apartments of the ancients; yet if a recess for the bed to stand in had been a fashionable feature in a Greek or Roman bed chamber, it is probable that it would have been mentioned by Vitruvius, or others, and especially by Pliny, who is so minute and particular in the description of his Laurentine and Tufculan villas. In each of these villas he describes a small elegant retiring closet, furnished with a bed, which by means of glafs folding doors and curtains, could be occasionally laid into or separated from the adjoining.
ing apartment. These alcoves appear to have been somewhat similar to alcoves, but they differ essentially from modern alcoves in having windows. The recesses discovered by the Abbé Winkelmann, in one of the chambers of Pompeia, in which he conjectures, perhaps rightly, that a bed had been placed, and those recesses which lie found on the second story of Adrian's villa, at Tivoli, have better pretensions to the name of alcoves, but something more than a verbal description is wanting to enable us to determine whether they were formed for the express purpose of receiving a bed, or for some other purpose; or whether they were not such accidental recesses as are made by necessity in the arrangement of a building which the architect turns to the best use in his power.

Be this as it may, alcoves, according to the modern manner, undoubtedly originated in Africa, or Asia, for we read of them perpetually in the Arabian stories, and in descriptions of Asiatic palaces and gardens. From Arabia they were introduced among the Spaniards by their Saracen conquerors, and by the Spaniards, after the expulsion of the Moors, at the close of the fifteenth century, into Germany, France, and other nations, as the name they bear in every country sufficiently evinces.

At this time the Spaniards would scarcely have influence enough to make anything fashionable north of the Pyrenees; but at the period we are speaking of they were held in high consideration, and many of their customs and manners were adopted in the other dominions of Charles the fifth. It is remarkable that in the designs of Palladio, and of several Roman architects of the same age, whose works have been consulted, we find no example of alcoves, from whence it may be inferred that they had not then become fashionable either in Rome or Venice. Whether they were more so in those parts of Italy which were under the dominion of Charles might be an amusing subject of inquiry to an antiquary. It is said that alcoves are still frequent in the houses of the Spanish nobility, and Swinburne mentions two yet remaining in the Royal bedchamber of the Moorish palace of the Alhambra, at Grenada, which are probably the oldest in Europe, though it is uncertain whether their decorations are not of a more modern date, as the apartment was repaired for the use of Philip V. The beds were placed upon raised pavements of blue and white tiles, a fountain placed in the middle to refresh the apartment in hot weather, and two small doors behind the alcoves led to the royal baths.

In England, alcoves of every kind have been much in use, but the change of manners, in consequence of the general diffusion of wealth, has nearly banished the most magnificent kind with state beds, and the parade of which they were appendages. Even in private bed-rooms they are now seldom constructed, except to obtain uniformity, or to communicate to some other apartment, as they are found less convenient, and by confining the air, supposed to be less healthy to sleep in, than the uncontracted space of the chamber.

ALCOY, in Geography, a small town of Spain, in Valencia, at the source of a river of the same name, which traverses the whole province from south-west to north-east. N. lat. 38° 45'. W. long. 0° 21'.

ALCRANES Rocks lie in a direction north-west from Cape Catoche, the north-east point of the province of Jucatan, on the Spanish main, and about north-north-east from Cape Condecedo, the north-west point of Jucatan; extending from N. lat. 22° 50', to 22° 10' in breadth, and from W. long. 89° 50', to 91° 10' in length.

ALCUDIA, a town of Spain, in Valencia, eight miles north-west of St. Felipe. ALCUDIA, a small town of Africa, near the Cape of the Three Slaves. ALCUDIA is also a town of the island of Majorca, on the coast between Pugierza and Cape de la Piedra, which gives name to a large bay with good anchorage, and a Cape forming the northern limit of the bay. In July and August there is a fishery of coral. N. lat. 39° 50'. E. long. 3° 24'.

ALCUESAR, or ALCOUESAR, a town of Spain, in Aragon, upon the river Jero, north of Balbastro, situated in a fertile country. N. lat. 42°. E. long. 10°.

ALCUIN, or ALBINSUS FLACCUS. Biography, flourished towards the close of the eighth century, and was famous for his genius and erudition. He was born in the north of England, and educated at York, under the direction of archbishop Egbert. Some say that he received part of his education in early life from Venerable Bede, but as he survived him about 70 years, others have disputed this fact. Egbert appointed him keeper of the curious library which he had founded at York; and he was also dean of the church in this city, and abbot of Canterbury. In 793 he was sent on an embassy by Offa, king of Mercia, to the emperor Charlemagne, who conceived so high an opinion of him, that he solicited him to settle in his court, and to become his preceptor in the sciences, as well as to assist him in settling some ecclesiastical disputes that agitated the country at that period. Accordingly he instructed the emperor in rhetoric, logic, mathematics, and divinity, and was in such high esteem at court that he was called, by way of eminence, "the emperor's delight." Charlemagne likewise employed his learned favourite to write several books against the heretical opinions of Felix, bishop of Urgel, in Catalonia, who maintained that Jesus Christ was the son of God, not by nature but by adoption; and Alcuin accompanied the emperor in 794 to the council of Frankfort, which consisted of 500 bishops, and of which he was admitted a member. Although this council decreed, that Jesus Christ, as man, ought to be called the proper, not the adopted, son of God, the dispute was continued; and Felix being allowed to defend his opinion before an assembly of bishops at Aix la Chapelle, in 799, Alcuin was employed as his opponent, and performed the office to the entire satisfaction of the emperor and other attendants, and to the conviction of Felix and his followers, who were thus induced to abandon their errors and to accede to the opinion of the church. Alcuin performed other services on behalf of religion. He wrote commentaries for explaining the scriptures, but chiefly with a view to the investigation of their mystical meaning; he corrected the errors of the Latin translation in common use; and the first German translation of the scriptures has been ascribed to his direction and superintendence. He was also appointed, in concurrence with Paulus Diaconus, to compile, from the writings of the fathers, homilies or discourses upon select portions of scripture, which the ignorant priests of that period might commit to memory, and recite to the people. Alcuin, under the patronage and with the assistance of Charlemagne, contributed very much to the advancement of learning, by establishing public schools, particularly in France. Cave (Hist. Lit. tom. i. p. 637.) says, that France was indebted to Alcuin for all the polite learning of which it boasted in the eighth century and the following ages. The universities of Paris, Tours, Fulden, Soissons, and many others, were indebted to him for their origin and increase; some of which he was not the superior and founder, being
being at least enlightened by his doctrine and example, and excited by the benefits he procured for them from Charlemagne. A German poet, cited by Camdan, thus extols the merit of Alcuin in introducing literature into France:

"Quid non Alcuino, faciundia Latitutin, debes! \nFulmanum bonum abqui felicer artes, \nBarbarieaque procuct lutos depelere, capit."

"Let Gallia's sons, nurtured in ancient lore, \nTo Alcuin's name a grateful tribute pay; \nThe light of science to restore, \nAnd bid Barbarian darkness flee away."

Dr. Warlow, however, (Hist. of English Poetry, vol. i. p. 2) cautiously in forming "too magnificent ideas of those celebrated masters of science, who were thus invited into foreign countries to conduct the education of mighty monarchs, and to plan the rudiments of the most illustrious academies. Their merits are in a great measure relative. Their circle of reading was contracted, their systems of philosophy jeane; and their lectures rather served to stop the growth of ignorance than to produce any positive or important improvements in knowledge." After Alcuin had spent many years in the most intimate familiarity with the greatest prince of his age, he obtained, at length, with great difficulty, in 801, leave to retire from court to his abbey of St. Martin's, at Tours. Here he kept up a constant correspondence by letters with Charlemagne; from which it appears, that both the emperor and his learned friend were animated with the most ardent love to learning and religion, and constantly employed in contriving and executing the noblest designs for their advancement. The emperor often and earnestly solicited him to return to court, but no arguments could induce him to quit this honourable retreat, where he was employed in the education of the youth of the school which he had founded in this city; and where he died on Whitsunday, in the year 804. He was a person of distinguished piety and learning, and reckoned by William of Malmsbury the best English divine after Bede and Aldhelm. He composed many treatises on a great variety of subjects, in a style much superior with respect to purity and elegance to that of the generality of writers in the age in which he flourished. Besides his poem, "De pontificibus et Sanctis Ecclesie Eboracensis," first discovered by Mabillon, and published by Dr. Gale among his "Quindecim Scriptores;" his other writings are extremely voluminous. They consist of commentaries on the Bible, homilies, lives of saints, theological and metaphysical dissertations, epitaphs, verses, and treatises on orthography, grammar, rhetoric, and music; they are recited in the Biog. Brit. and by Cave, (vol. ii.) and amount in number to 53; and an edition of them was published by Duchene, at Paris, in folio, in 1617, and at Ratibon in 1777. Some additional pieces are enumerated by Dupin. It has been said that Alcuin advised Bede to publish his eclesiastical history, and furnished materials for it; but the assertion is contradicted by chronology; this work having been published in 731. There was another Alcuinus, or Albinus, abbot of St. Aulfin's church at Canterbury, the cotemporary of Bede, who died three years before him. By this Alcuin Bede was urged to publish his history, and assisted with communications. Biog. Brit. Henry's Hist. vol. iv. p. 33-40. Soho. More's Eccl. Hist. vol. iv. p. 354, &c. 8vo.

ALCYON. See Halcyon.

Alyon, or Alcyonium, in Ornithology, a name given by the ancients to the ifida or king-fisher, and also to a species of the Alcedo.

Alcyon, a name given by Brown to the Delcanus aquilina.

ALCYONE, in Entomology, a species of the Papilio Nymphalis, with dentate brown wings, with yellow bands, the anterior having two ocelli on both sides, and the posterior marked below; found in the mountains of the southern parts of Russia.

ALCYONION, in the Linnaean system of Zoology, a genus of Zoophyes; the characters of which are, that the animal grows in the form of a plant; the item or root is fixed, fleshy, gelatinous, spongy, or coriaceous, with a cellular epidermis, penetrated with fleshy pores, and flossing out tenuculated ovisparous hydræ. The number of species, mentioned and considered by Gmelin, is 28; viz. 1. A. arborium, with fleshy item, obtuse branches, and pores in the form of pimplies, found in Norway, White and Indian bees, sometimes of the human height. 2. A. ceris, with item arborescent, coriaceous, crimson-coloured, above ramous, and with fleshy papilíter, called by several authors the fish-hand, and found at the bottom of the Mediterranean sea. 3. A. epipitrum, with item fleshy, cavitated, and reddish: the finger-shaped sea-pen of Ellis, and fish-apple of Rondeletius, found in the Mediterranean, about four inches long, and of the thickness of the finger. 4. A. auriculium, with item siliaceous, and reniform pileus, kidney-shaped purple sea-pen of Ellis, found in the sea, washing the coast of Carolina. 5. A. digitatum, siliaceous, fleshy, yellow and warty, the philotheca spherica of Donat, found in the Mediterranean, and at the Cape of Good Hope, about the size of an orange and cartilaginous. 6. A. schlofferi, roundish and fopose, penetrated with ray-like thars, the alcyonium ramosum lividum, &c. of Solander and Ellis, the ura marina of Géner, the bottyris philothecus of Gaertner, found on the coast of Cornwall, brown or sly, and covering other bodies. 7. A. lyncus, globose, fibrous, yellow and tethya of Donat, found in the Mediterranean, and at the Cape of Good Hope, about the size of an orange and cartilaginous. 8. A. baris, globose, pulpous and green, the sea-orange of Marius, found in the English and Mediterranean seas, about the size of a middling apple, and coriaceous. 9. A. cydonium, roundish, spongy, yellow and slyne, found in the African, Mediterranean, and Northern seas, affixed to rocks and corals, and sometimes loosened by the agitation of the waves. 10. A. fixus, siliaceous, pulpous and luid, the sea-fish of Ellis, and sea-lungs of Ray, the alcyonium tuberofum of J. Bubin, found in the Mediterranean and English seas, very rare among fofils, of an olive colour, and within granulose. 11. A. gelatinosum, polymorphous and gelatinous, the alcyonium luteum gelatinosum polymorphum of Solander and Ellis, fpongia ramosa, &c. of Parkinson, fucus gelatinosus of Hudson, and fucus nodosus and fpongius of Ray, found in the European ocean and the Icy sea, adhering to the algae, stones, fleshy, &c. 12. A. manis diaboli, polymorphous, perforated with oblique protuberances, found in Iceland. 13. A. una, yellow, spongy, patulous, with five radiated small thars, and black center, found in the sea of Norway. 14. A. crassum, tuberiform, white and blynt, found in the Norway sea. 15. A. rubrum, crambaceous, fofit, sprinkled with reddish scattered spots, found in the Norway sea. 16. A. mammillatum, white, coriaceous, with convex mamille, and the center hollow and subfattellated, found in the American sea. 17. A. ocellatum, ferruginous, coriaceous, with rugose subcylindric cells, and radiated ocellate spots, found adhering to rocks, with twelve rays of thars, in the island of
of St. Dominica. 18. A. tuberosum, yellowish and tubulous, with the spicules frequently subfused, and tubulous pores, found adhering to rocks in the island of Mauritius. 19. A. gorgonides, conicaceous, fandy-fluffy, with radiated woody cuticles, found, with 12 rays of cellules, adhering to corals and rocks, in the island of Curaçao. 20. A. echinatum, with a roundish stem, and oblong pores scattered over every part of it, found, in the sea washing the American coast, very porous, white, and with red-coloured. 21. A. alfuratum, white, very ramous, attenuated and subfused, with tubulous terminal pores, found in the Indian sea. 22. A. papillosum, conicaceous, with large papille thickly set and convex, the botulus marinus of Marilgh. 23. A. conglomeratum, gelatinous, convex, with conglomeration lingers, and terminal mouths without teeth, found in the Cornish seas. 24. A. aequicellulare, conicaceous, conicaceous, with divided papille, and two subdulated mouths, found in the Cornish seas. 25. A. Johnsonum, with many cylindric flaky items, and an orifice scattered at the apex, found, on the northern shore of Spitzbergen. 26. A. commutabile, green, ramous, with cylindrical obtuse pyramidal branches, found on the rocks of the island of Nisia, opposite to Neapolis. 27. A. globulatum, with two elongated terminal mouths. 28. A. cornutum, with four elongated mouths, encompassing a papilla, and four small erect corn buds, found, in the sea of Holland.

From a series of experiments made by Mr. Hatchett, on a few species of alcyonium, vis. aballicum, ficus, and arboreum, he was led to conclude, that they were all composed of a soft, flexible, membraneous substance, slightly hardened by carbonate, mixed with a small portion of phosphate of lime. Phil. Trans. for 1800. P. ii. p. 364.

Alcyonium is also a name given, with various epithets, to the Tubifera maccus of the Linnean system, and also to several species of Millepora.

Alcyonium is also a name given by Lloyd to a peculiar kind of foliose coral, of the Astrotites kind, found in Wales. It is very plentiful in that country, and put on the appearance of a fort of marble, being bedded in a marly matter for its matrix. Phil. Trans. No. 252.

Alcyonium Mare, in Ancient Geography, a name given to that part of the gulf of Corinth, which stretched itself between the western coast of Berotia, the northern coast of Megaris, and a small part of Corinth, as far as the promontory of Olmita.

Alcyonium was also the name of a lake in Corinth, of unfathomable depth, and which Nero attempted unsuccessfully to found. Bacchus is said to have defended himself through this lake to bring back Semelae. Near this lake was a temple constructed by the Oropians to Amphiarraus, the Sorcerer. Panbankis. Ed. Kumin. p. 200.

Aldehyraram, in Oeconomy, a name given by some to the seafanoid bones of the great toe.

Alban, in Geography, a river of Siberia, which rises in the mountains of Onkotik, on the borders of China, N. lat. 51° 50', and E. long. 125° 44', and taking a north-east course to lat. 68°, changes its direction to west-north-west, and at N. lat. 63° 25', E. long. 128° 24', joins the Lena.

Aldaru, in Botany, a name given by Avicenna, Serapion, and other Arabic writers, to the lentise tree.

Aldborough, in Geography, a sea-port town of England, in the county of Suffolk, deriving its name from the river Ald, near it, and pleasantly situated between the sea on the east and a high hill on the west, on which the church stands. The barony of this town in the salus is considerable, and near it there is a quay, with warehouses for the fifth, and conveniences for drying those of the north sea. Herrings and sprats are the principal objects of attention; and it is said that this is the only place for curing red sprats. The town is corporate, and sends two members to parliament. Its markets are on Wednesday and Saturday. It is 91 miles north-east of London. N. lat. 52° 10', E. long. 1° 30'

Aldeburgh is also a market town in the West Riding of Yorkshire, on the river Ouse, 15 miles north-west of York, and 208 miles north of London. N. lat. 54° 15', W. long. 2° 20'. It sends two members to parliament. It was formerly a Roman station, called Ilurium Britannum, and probably the capital of the Brangtines. Its market day is Wednesday.

Alde, or Olds, a small island on the west-coast of Norway. N. lat. 61° 25', E. long. 5° 0'.

Alde, Henry Van, in Biography, a painter who flourished in 1652, and excelled in portraits.

Aldea Gallega, d. Gallician village, a small market town of Portugal, in Extremadura, situate in a kind of island formed by the Tagus, north of Setillum, and south of Lisbon. On an eminence, a church dedicated to Nois Senhorada Atelia, our lady of the watch-tower; to which the negroes in Lisbon annually make a pilgrimage; and this black procession is attended by a great concourse of people. N. lat. 38° 45', W. long. 6° 31'.

Aldea el Murro, or del Pozo, a town of Spain, in Old Castile, on the frontiers of Aragon.

Aldea del Riso, a town of Spain, in the province of Andalusia, and district of Cordova, situate on an eminence, to the south of the Guadalquivir; eight miles north-west of Cordova.

Aldea river is on the coast of Brazil, in about S. lat. 19° 40', W. long. 40° 3', on which stands the town and port of Reys Magos. There is a large Cape to the south of it.

Aldea de Trinidad, lies on the coast of Brazil, called Paraguay, to the north-east part of the gulf of Santos, in S. lat. 24° 30', W. long. 48° 30'.

Aldeas bay is about 16 leagues north-east from Cape Negro, on the southern part of the west coast of Africa, in S. lat. 15° 25', E. long. 16° 25'. The bay is small but secure; and European ships, trading to the coast for slaves, frequently touch at it.

Aldebaran, in the Materia Medica of the ancient Arabian physicians, the name by which they have called the fourth star in Virgo, and which they reckoned among the vegetable poisons.

Aldebaran, in Astronomy, the Arabian name of a fixed star, of the first magnitude, in the eye of the constellation Taurus, or the bull; and hence popularly called the bull's eye. For the beginning of the year 1800 its Right ascension was 66° 6' 51", 10

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Aldebert, or Adebert, in Biography, a native of France, who, in the eighth century, deduced the people by pretended visions and revelations. He exercised episcopal dignity without the authority of Synod, the pope's legate, and among other irregularities, with which he was chargeable, both as to his principles and conduct, he forged a letter, addressed to the human race which he pretended to have been written by Jesus Christ, and to have been transmitted to him by the archangel Michael. He also remitted fines without confession, and required his followers to quit the churches, and to worship God in houses which he erected in the fields, and to kneel before crosses which he placed in woods and near fountains. His popularity
was the cause of sedition and tumult among the eastern Franks. He was condemned at the insurrection of Boniface by the pontiff Zachary, in a council held at Rome, A.D. 748, and thrown into prison, where he probably ended his days. His forged letter was published by Stephen Baluze, in the second vol. of the "Capitulm Regum Francorum." Mollenhoff's Excl. Hist. vol. ii. p. 273.

ALDEGEO, in Geography, a river of Italy, which rises near Montefello in the Vicentin, and joins the Adige in the estates of Venice, near Zevio.

ALDEGRETUS, or ANDREGEETUS, in Geography, an Adel family at Padua, taught a medicine at that university 34 years, and died of the plague in the year 1631, aged 58 years. He published "Luis Venerac perfectissimus vir disillusion ex ore Hercules Saxonic. Patavinii Medici clarissimi." 1597. 4to. See Adene de Merici Vencratis. p. 917.

ALDEGREVER, Henry, a considerable engraver and painter, was born at Zount in Weilphalia, in 1502. He is said to have studied under Albert Durer, at Nuremberg, while he was there. The mechanical part of his engraving is very neat, and executed entirely with the graver, in the style of Albert Durer. The light parts upon his fles. are rendered soft and clear, by the addition of small lines, by which he has occasionally interperfed with judgment. His drawing of the naked figure is more correct than that of the old German masters, and he has the far of that light tuff which appears in the best of their works. It is observed, however, that his figures of men are more correct than those of his women. His heads are in general very expressive, and his other extremities well marked, but sometimes rather heavy. As a painter also, he is spoken of very highly, and considered as nearly if not altogether equal to his master, Albert Durer. His principal works are: his own portraits, and several others, such as those of Kippenhulch, Melchthlon, &c.; the history of Solomon and the two elders; Dives and Lazarus; the passion of Christ; the labours of Hercules; several Madonias; many historical subjects; a variety of Goldsmith ornaments, very beautifully engraved; and some few pictures, amongst which is the Sacrament of Nativity. There is only one etching attributed to this master, which is Ophus playing on a violin, and Enulide at the foot of a tree, dated 1528. It has been observed, that Aldergrever would have been very eminent in his profession, if in early life he had been introduced to a knowledge of the antique, and a more intimate acquaintance with the Roman masters. This artist has been erroneously called Aldergraft, and his Christian name has been Albert instead of Henry; but his name upon his own portrait is Aldergrever. The time of his decease is not known; but the last date which appears upon his prints is 1558. The number of his plates amounts to no less than 350. Strutt.

ALDEN, Fort, in Geography, is situate in Cherry-valley, in the state of New York.

ALDENHAIR, a small town of Germany, in the circle of the Lower Rhine, in a prefecture of the same name, and in the archiepiscopie of Cologne, situate on the river Ahr, eight leagues south of Cologne. N. lat. 50° 35'. E. long. 6° 43'.

ALENDAU, a small town of the Lower Rhine, and archiepiscopie of Cologne, in a prefecture of the same name, to leagues south of Cologne. N. lat. 50° 29'. E. long. 6° 30'.

ALDENBERG, a town in the circle of Weilphalia and duchy of Berg, four leagues north-east of Cologen.

ALDENGROB, a town of ancient Rulphad, now Old Ladoga, which lies in the government of St. Peterburg.
ALDERMAN. This, however, was owing to the increasing power of the abbey and to the prodigious wealth and influence of a few great families, rather than to any formal change in the constitution. Henry's Hist. vol. iii. p. 342.

It must be observed, however, that among our Saxon ancestors, there were several magistrates who bore the title of alderman. Among them there were aldermannus totius Anglie, aldermannus totius comitatus, etc., etc,
Aldred, in Biography, an English prelate of the 11th century, was a man of an enterprising and ambitious spirit, and gradually rose from being a monk of Winehelter and abbot of Tavistock, to the see of Worcestcr and the archiepiscopacy of York. Four years after he was promoted to the see of Worcestcr, which he obtained in 1046, he took a journey through Hungary to Jerusalem, the first adventure of the kind which any Englishman had performed; and upon his return he was deputed by Edward, the Confessor, on an important embassy to the emperor Henry II. On his arrival in England, after some flay in Germany, where he acquainted himself with the church discipline, which he introduced into his own country, he procured the administration of the see of Wilton for three years, during the absence of his bishop, and that of Hereford for four years, after the death of its incumbent. In 1061 he was advanced to the archiepiscopacy of York, and allowed, as it has been said, by means of bribery, to hold the see of Worcestcr in commendam. Pope Nicholas II., having heard of his monastic practices, not only refused him the pall, for which he applied, but deprived him of his other preferments, but being robbed in his way home over the Alps, he was under a necessity of returning to Rome, and by the bold interference of Earl Toli, the pope was prevailed upon to grant him the pall, on condition of his resigning the see of Worcestcr. Afterwards the king, considering the deprivations which the see of York had suffered by the incursions of the Barbarians, permitted Aldred to retain 12 towns or manors belonging to the see of Worcestcr for his own use. Others, however, lay, that he detained them by violence and injustice. The following instance of revolution, and of priestly arrogance, is recorded by his panegyrist Stubbs. The high sheriff having intercepted some provisions, which the archbishop's servants were conveying to the palace at York, and seized them for the king's use, Aldred, instead of seeking legal redress, gave a deputation of clergy and citizens to demand restitution, and enforced the demand by threats of excommunication. Upon the sheriff's refusal, the archbishop, with a train of ecclesiastics, hasted to the king, who was then sitting in council at Wolminister, and abruptly addressed him in this imperious language. "Hear me, William! when thouwert an alien, and God had permitted thee, for our sins, and through much blood, to reign over us, I anointed thee king, and placed the crown upon thy head with a blessing; but now, because thou defervest it not, I will change that blessing into a curse against thee, as a per-
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A persecutor of God and his ministers, and a breaker and contemner of those laws and promises, which thou madest unto me before the altar of St. Peter. The king was affronted and terrified, threw himself at the feet of the archbishop, and anxiously entreated to know what offence he had committed. When the nobility who were present expressed their indignation at the prelate's insolence, and at his suffering the king to be at his feet; "let him alone!" said the archbishop; "let him lie; he is not fallen at my feet, but at the feet of St. Peter." At length he raised the king and delivered his complaint; upon which an order was issued, that the prelates should be fully restored, and the prelate was thrown away loaded with rich presents.

Alfred's veracity of principle was sufficiently manifest in his conduct under the changes of government that occurred during the latter part of his life. When his patron Edward was dead, he affilied Harold in obtaining the crown. On the arrival of William the Norman, when Stigand, archbishop of Canterbury, refused to crown him, Alfred fell in with the stream, and performed the ceremony. Upon the Danish invasion, when the citizens of York, and others, declared for prince Edgar Atheling's title, the archbishop sicknessed at the news, and died Sept. 10, 1066, just before the Danes landed; and was buried in the cathedral church of York. Blog. Brit.

ALDRICH, or ALDRIDGE, ROBERT, was bishop of Carlisle, in the reigns of Henry VIII., Edward VI., and Mary, and of course accommodated his principles to the changes of the times. He was born at Burnham, in Buckinghamshire, educated at Eton School, and elected scholar of king's college, Cambridge, in 1507, where he took the degree of master of arts. At this time Erazmus fliyed him "blanda eloquentia juvenis." Leland has also dedicated him to his admirable parts and learning. In 1540 he was incorporated bachelor of divinity at Oxford, and in 1550 he was licensed as doctor in the same faculty. He successively became archdeacon of Colchester, canons of Windsor, and registrar of the order of the garter, and at length, in 1553, bishop of Carlisle. He died March 25, 1555, at Horn-Castle, in Lincolnshire, which was a house belonging to the bishops of Carlisle. He wrote several pieces, such as "Reflections concerning the Sacraments," "Answers to Queries, concerning the Abuses of the Mass," "Various Epigrams," and "Reflections," of some questions relating to bishops and priests, and other matters, tending to the reformation of the church, begun by Henry VIII. Blog. Brit.

ALDRICH, HENRY, an eminent divine and polite scholar, was born at Welfinfield, in 1647, and educated in the college school, under the famous Bubly. In 1662 he was admitted into Christchurch college, Oxford, where he continued, in the several situations and with the appropriate commendations of a diligent student, useful tutor, and excellent master, to the day of his death, Dec. 14, 1710. Having passed through the gradations of bachelor of arts in 1666, and master in 1669, he took orders, and became an eminent tutor in his college. In 1681 he was installed canon of Christ church, and in the same year accumulated the degrees of bachelor and doctor in divinity. During the reign of James II. he bore a conspicuous part in the controversy with the papists, and published several tracts; ranking, according to bishop Burnet, (Hist. of his own Times,) among those eminent English clergymen, "who examined all the points of popery, with a solidity of judgment, a clearness of arguing, a depth of learning, and a vivacity of writing, far beyond anything that had before that time appeared in our language." Soon after the Revolution, viz. in 1689, Dr. Aldrich was installed dean of Christchurch, in which high station he behaved in the most worthy and exemplary manner, and exerted himself in promoting learning, virtue, and religion. By his skill in architecture he improved the buildings of the college; and that part of it called Backwater quadrangle, so deservedly admired, was designed by him. The parish church of All Saints, in Oxford, and the chapel of Trinity College, which he designed, are further speciments of his architectural knowledge. In order to excite and cherish a taste for polite literature, he annually published some piece of an ancient Greek author, as a new year's gift to the students of his house. The works of this kind which he edited were "Xenophon's Memoralia," Gr. and Lat. Oxon. 1696, 8vo.; "Xenophonis Sermo de Agricella," Gr. and Lat. Oxon. 1691, 8vo.; "Ariflex Historia LXXII. Interpretum," Gr. and Lat. Oxon. 1692, 8vo.; "Xenophonis de re equilibri," Gr. and Lat. Oxon. 1693, 8vo.; "Epictetus et Theophrastus," Gr. and Lat. Oxon. 1707, 8vo.; "Platonis, Xenophonis, Plutarchi, Luciani Sympoas," Gr. Oxon. 1711, 8vo. He wrote likewise a fylem of Logic, intitled "Artis Logica Compendium," Oxon. 1691, 8vo.; and "Elements of Geometry," in Latin, never published.

He was also concerned in Gregory's Greek Testament, printed at Oxford in 1703, fol. He wrote notes on Haver camp's edition of Josephus, and in concurrence with bishop Sprat, he revised the MS. of Lord Clarendon's History of the Rebellion. The tracts which he published in the papish controversy were, "A Reply to two Difficulties, lately printed at Oxford, concerning the Adoration of our Dear Lord Saviour in the Holy Eucharist," Oxford, 1687, 4to; and "A Defence of the Oxford Reply, &c." Oxford, 1688, 4to.

Dr. Aldrich amused his academic leisure with music and poetry. His abilities as a musician rank him, in the opinion of competent judges, among the masters of the science. He composed many services and anthems for the church service, and adapted English words to many of the motets of the Italian masters, some of which are frequently sung in our cathedrals as anthems. He established a musical school in his college, and at his deccate bequeathed to it a most capital collection of church music. Although he chiefly applied himself to sacred music, yet being of a cheerful temper, and possessing a fund of humour, he occasionally diverted himself by producing pieces of a lighter kind. For the entertainment of smokers, to which fraternity he belonged, he composed a smoking catch to be sung by four persons while they were smoking; and he was also the author of the popular catch "Hark the happy Christ church bells," As a Latin poet, Aldrich is entitled to some distinction. Two elegant pieces written by him are contained in the "Muse Anglicana," viz. on the accession of William III., the other on the death of the Duke of Gloucester. The following epigram, intitled, "Caesae Bibendi," is also ascribed to him:

"Si bene quid memini, causae sunt quinque bibendi,
Hospitio adventus, praeclara sitis, atque futura,
Aut vini bonitas, aut quaelib et alia causa."

Thus translated: "If on my theme I rightly think,
There are five reasons why men drink:
Good wine, a friend, because I'm dry,
Or left I shoule be by and by,
Or any other reason why."

The candour of Aldrich's temper, and the moderation of his principles, may be inferred from his having been appointed by William III. in 1689, one of the commissioners for preparing matters towards introducing alterations in the service of the church, and accomplishing a comprehension with
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with the differences; but the hand of innovation has always
prevented the publication of the work. This the preter-
ence, however, did not prevent the living of
Hawkins in Bologna, and in 1553 was made proctor of
the university. In 1560, he died in his college, having
spent the whole of his life without any emolument, in the
cathedral. Thus was the man who, by easy pleasures, his
attention to small matters, and to the credit of his college,
the discovery of the commencement of plants, and the
publication of a number of botanical tables, various
memorials, and valuable quatrains, wrote to transmit his
name to his home, to posterity." Bio. Brit. Burney's

ALDROVANDI, in History, a genus of the plantae
Gnetea class and order; the characters of which are, that
the calyx is a five-parted, erect, equal, permanent perian-
thum; the corolla has five petals, oblong, acuminate,
of the length of the calyx, and permanent; the stamina have
filaments of the length of the flowers, and simple anthers;
the pistil has a globose fenn, floral white, and obtuse
stigma; the pericarpium is a globose capsule with five blunt
angles, five-valved, one-seeded; and the seeds are ten, longish,
feeling to the inner wall of the pericarpium. There is one
species, viz. A. advena, the type of the genus, and bocardo
of the Antilles, which is found in marathas, both in Italy and
India, with bladders like utricularia, but in bunches. Martyn.

ALDROVANDI, Ulysses, in Biography, a celebrated
naturalist, sometimes called the Modern Pliny, was born of
a noble family, at Bologna, in 1522, and pursued his studies
partly at his native place and partly at Padua. The truth
of his religious opinions having been suspected, he travelled
to Rome in 1552, for the purpose of vindicating himself;
and there he took the advantage of studying the antiquities
of the place, and drew up a treatise on the ancient statues,
which was published in the work of his friend Lucio Mauro,
on Roman antiquities. On this occasion he likewise became
acquainted with Rondozio, whose researches into the his-
tory of fishes gave him a taste for the knowledge of nature.
Upon his return to Bologna he engaged in the study of
Botany, and went to Pisa to obtain an audience from professor
Chirif. Having graduated in physic at Bologna in 1553,
he was in the following year appointed to the chair of phi-
losophy and logic, and to the lecturership of botany, and by
his interest the botanical garden of Bologna was founded in
1567. The duties of his profession, to which he sedulously
attended, did not prevent his devoting his time and property
to the important objects of collecting books, conducting an
extensive correspondence, and taking journeys, with a view
to obtain information concerning every branch of natural
history. He also expended large sums, and involved himself
in pecuniary difficulties, in the design of forming a museum
of rare and curious productions, and in employing the best
artists in delineating them. He not only caused to be de-
linated the external face of the objects he describes, but
frequently gives anatomical accounts of their internal struc-
ture, with the uses of the parts; more especially of birds,
in which he made some valuable discoveries. As the result
of this labour and expence, he published four folio volumes
with plates: three on ornithology, and one on insects. One
volume on blooded animals, and another on fishes, were
likewise composed by him. The rest, making the whole
number 13 volumes, and treating on serpents, quadrupeds,
monsters, metals and trees, were compiled after his death,
principally from the materials which he had collected. For
the titles of the several treatises, see Haller's Bib. Botanica,
Anatomica, and Medica, under the art. Aldrovandus. Not-
withstanding the liberal affluence which he received in the
execution of his extensive and magnificent plan, the expence
of it ruined his fortune and exhausted all his resources so
completely, that he died in 1603, after having lost his sight,
as it is said, at the height of 83 years. Holdfast, he was acquainted with the
apothecaries and physicians of Bologna, and was expelled the
college of physicians. To his industry he ascribed his
immense collection, and it formed the basis of the museum
now existing at Bologna, where his memory is held in great
and deserved honour. Although his industry and zeal seem to
have exceeded his judgment, and his works are defective
in arrangement, and afloat with superficial and dubious
matters, yet natural history is greatly indebted to his
diligence and liberality. Buffon calls him the most laborious
and learned of all the naturalists, and commends the plan
and distribution of his work, and the exactness of his de-
scriptions. Boyle observes, that antiquity does not furnish
us with a design so extensive and labious as that of
Aldrovandus with regard to natural history. Pliny, he says,
has treated of a greater number of subjects, but he only
touches them lightly, and says but little upon anything,
wheras Aldrovandus has collected all he could meet with.
His Hortus Sicus, or collection of dried specimens of
plants, which filled fifteen large folio volumes, was exuding;
Haller says, near a century after the collection was formed.
Besides his manuscripts in natural history, he left various writ-
ings in almost every other department of the arts and sciences.
His praisies are celebrated by Barbier, afterwards pope
Urban VIII. in the following epigram:

"Multiplicis rerum formas quis putas atque,
Exibet et quaeque primit abdit humus,
Mons hortus, spectant ocular, dum vaceta fagacii
Aldoranda tuta digerit arte lice.

Miratur propinquis foliora industrid factus
Quamque tibi nulli neget efficarum,
Obstrepita sese simul renum secundar creatrix,
Et cupit efficium quem vidit artis opus."  

"The various forms that thrive the watery plains,
Whence the earth's copious womb contains,
The trees and herbs that on her face appear,
And all the wing'd inhabitants of air,
In thy stupendous work collected lies,
To seal the soul, and make the totality eye,
Her own productions industry no more,
Darcs own, but wonders at the fruit the bower;
And fruitful nature at thy deeds amaze'd:
Wishes her own towe works thy art has rais'd."  

Gen. Dict.

ALDUABIS, or ALDUA DUBIS, now DOUX or
DOUBS, in Ancient Geography, a river of Celtic Gaul, which
rofe in Mount Jura, and separating the Sequani from the
Helvetii, and running through Burgundy, or the Franche
Comte, abounded encompassed Befanron, and fell into the
Suone, near Chalons. The word is formed of Aldua, the
Alde, and Dubis, the Doux, the names of two rivers which
unite near Monthbehrard.

ALDUIDES, in Geography, mountains that are part of
the Pyrenees, in Lower Navarre, between Pampeluna and
St. Jean De Port.

ALE, a kingdom of Africa, in Guinea, to the south of
Senegal, and almost opposite to Cape Verd. Its capital,
which is the residence of the king, is Yagao. N. lat. 13°
W. long. 12° 40'.

ALE, a river of Scotland, which runs into the Tiviot,
three miles north-north-west of Jedburgh.

ALE, in Ancient Geography, a town of Afia, upon the
coast of Syri a, between Pedalia and Selinus.

A L E
Ale, a popular fermented drink, made from malt and hops; and chiefly distinguished from beer, another potable liquor made from the same ingredients, by the quantity of hops used therein, which is greater in beer, and therefore renders the liquor more bitter, and fitter for keeping. For the method of brewing ale, see B e e r . The brewers also distil pale, or fine ale, broken ale, &c. There are several properties, effects, &c. under Malt-Liquor.

The art of making an infusion of corn, and particularly of barley, similar to our ale, seems to have been known and practised in very ancient times among those people who lived in climates that did not afford grapes. It is said that beer was first brought from Egypt into those nations, which were settled by the colonies that migrated from the Nile. The Zinthus and curium, mentioned by Tacitus, as the beverage of the ancient Germans, are supposed by Mattheus and others to correspond to our ale and beer. Dio Dorothes Siculus says (lib. iv. c. 26. tom. 1. p. 350.), that the Gauls, who lived in a country that produced neither grapes nor olives, made a strong liquor of barley, which they called Zinthus. The nations of Spain, the inhabitants of France, and the aborigines of Britain, used this liquor, under the different apppellations of cura and cersa in the first country, of cerevina in the second, and of cura in the last; all which names literally denote the strong liquor.

After the introduction of agriculture into this island, ale or beer was substituted for mead, and became the most general drink of all the British nations which practised that art, as it had been of all the Celtic people on the continent. "All the several nations, (says Pliny, H. N. xiv. 20. tom. 1. p. 729.) who inhabit the west of Europe, have a liquor with which they intoxicate themselves, made with corn and water, fruges maliuli. The manner of making this liquor is somewhat different in Gaul, Spain and other countries, and it is called by many various names; but its nature and properties are everywhere the same. The people of Spain, in particular, brew this liquor so well, that it will keep good for a long time. So exquisite is the ingenuity of mankind in gratifying their various appetites, that they have thus invented a method to make water itself intoxicating. The manner in which the ancient Britons and other Celtic nations, made their ale is thus described by Ialdorius, (Orig. lib. xx. c. 2.) and Orosius, (lib. iv. p. 279.), cited by Henry of Hitt, (Hist. of England, vol. ii. p. 564. 8vo.) "the grain is steeped in water, and made to germinate, by which its spirits are excited and set at liberty; it is then dried and grained; after which it is infused in a certain quantity of water, which, being fermented, becomes a pleasant, warming, strengthening, and intoxicating liquor." This ale was most commonly made of barley, but sometimes of wheat, oats, and millet. Geopon. lib. vii. c. 34. p. 203. This liquor is of such antiquity in England, that we find mention of it in the laws of Ina, king of Welles. Ale was the favourite liquor of the Anglo-Saxons and Danes, as it had been of their ancestors, the Germans. Tacitus de Mor. Germ. c. 23. Before their conversion to Christianity, they believed that drinking large and frequent draughts of ale was one of the chief felicities which those heroes enjoyed who were admitted into the hall of Odin. Amongst the liquors provided for a royal banquet, in the reign of Edward the Confessor, ale is particularly specified. In Scotland and Wales they had two kinds of ale, called common ale and spiced ale; and their value was thus ascertained by law: "if a farmer hath no mead, he shall pay two casks of spiced ale, or four casks of common ale, for one cask of mead." By this law, a cask of spiced ale, nine palms long, and 18 palms in diameter, was valued at a sum of money equal in effect to 5l. 10s. of our present money; and a cask of common ale, of the same dimensions, at a sum equal to 3l. 15s. Hence it appears, that common ale was at this period an article of luxury among the Welsh, and that it could only be obtained by the great and opulent. Wine at this time seems to have been unknown even to the king of Wales, as it is not mentioned in their laws; though Giraldus Cambrensis, who flourished a century after the conquest, informs us, that there was a vineyard in his time at Machenepar, near Pembroke, in South-Wales. Henry's Hist. vol. vi. p. 390. By a statute of 35 Henry III. in 1272, mentioned by Tune (Hist. Eng. vol. ii. p. 234.), a brewer was allowed to fell two gallons of ale for a shilling in cities, and three or four gallons in the same price in the country. But the first attile of ale was fixed by the famous Stat. 51 Henry II.

The following method for preserving ale from turning four in long voyages, was first published by Dr. Stobbe (Hist. Prod. N. 27.), and experience has evinced its utility. To every tun of five gallons, after being placed in a cask on shipboard, not to be fitted any more, put in two new-fab eggs whole, and let them lie in it. In a fortnight or a little more, the eggs- shells will be entirely dissolved, and the eggs become like wind-eggs enclosed only in a thin skin; after this the white is pressed on, but the yolks are not touched or corrupted; and by these means the ale has been so well preserved, that it was found better in Jamaica than at Deal.

The duties on ale and beer make a considerable branch of the revenue in England. They were first imposed in 1643, when the excise was first established, again by Car. II. and have been continued by several subsequent acts of parliament. By 27 Geo. III. c. 15., for every barrel of beer or ale, above six shillings a barrel, (exclusive of the duty hereby imposed, and not being two-penny ale, nor table beer) the brewer shall pay eight shillings; and for every barrel of six shillings, or under, (exclusive of the duty) one shilling and fourpence, and for every barrel of beer or ale above six shillings the barrel (exclusive of the duty), not exceeding 138. (33 Geo. III. c. 23. f. 1.) commonly called table beer, brewed by common brewers, according to 22 Geo. III. the brewer shall pay three shillings; and for every barrel of two-penny ale three shillings and fourpence.

The faceharne matter extracted from the farinoeous seeds of which ales are made, and subjected to a fermentation analogous to that of wine, imparts to our ales a quantity of alcohol; and they have, therefore, in general, the cordial, exhilarating, intoxicating, and sedative qualities of wine. But their effect, in these respects, depends partly upon the quantity and condition of the faceharne matter that is employed, and partly upon the management of the fermentation to which they are subjected. Ale is chiefly employed for the purpose of making ales, though it might be prepared from any of the cereals; and this fermentation is very properly made, because its germination is most easily conducted, and under its germination it gives out its sugar most readily, and in greatest quantity. Ales, made in the ordinary manner, will be stronger or weaker according to the quantity of the faceharne matter that is used; and this will be greater or less according to the quantity of well-ripened farina in the barley that is employed, according to the mode in which it is malted, according to the proper and complete extraction of the faceharne matter by water, and according to the dissipation in a greater or lesser degree, of a quantity of the superfluous water. The other qualities of ales, besides their strength or weakness, will depend upon the conduct of the fermentation. As the infusion of malt or wort, is not so well disposed to fermentation as the juices of fruits, it will require the addition of a ferment; and afterwards the conduct of the fermentation will be very much the same with that of wines; at first very active, and then slowly protracted for a long time; but however ale is managed,
pasted, its fermentation; not 6, capable of being rendered sigh complete and perfect, as that of wine. In most ales, there is probably a large portion of unalimented savourous matter, which of coarse renders ales more nourishing than wines, and they are, ceteris paribus, more liable to acrimony in the stomach than wines. It has been commonly supposed, that the virulence of nature is not entirely corrected by the fermentation, and that ales are more apt than wines to fill the vessels of the human body with viced fluids; but Dr. Cullen thinks that this circumstance deserves little attention, as it is probable that the power of the gallic fluid, and of the fermentation which happens in the stomach and intestines, reduces the whole nearly to an equality in respect of fluidity. Cullen's Med. vol. i. p. 418, &c.

A. E. ceresi, is also a denomination given to divers medicated liquors, or diet-drinks, of which ale is the base or vehicle. The medicated ales make a large article in our old dispensaries. Such are the ceresia oculorum, for the eyes; ceresia antiarcritica, against the gout; ceresia expul- sion, for the head; ceresia epileptica, &c.

A. E. gilt, is prepared by infusing the dry leaves of gill or ground-ivy, in malt-liquor, which hereby becomes impregnated with the virtues of that simple; and is therefore reputed abortive and vulnerary, good in disorders of the breast, and against obstructions of the vixera.

A. E. Dr. Bird's purging, is prepared of polypody, fena, farfepardis, aniceds, baregalls, agrimony, and maiden-hair, put up in a bag, and hung in a vessel of ale.

We also meet in some dispensaries with syrup of ale, made by boiling that liquor to a confection; which has been used against obstructions in the kidneys, and the floor albus.

A. E. ale. See BEER.

A. E. ale-berry, is ale boiled with bread and mace; sweetened, strained, and drunk hot.

A. E. conner, an officer in the city of London, whose business is to inspect the measures of the public houses. There are four of them, and they are chosen by the common-hall of the city.

A. E. houseful must be licenced by justices of the peace, who take recognizances of the persons licensed, viz. 10l. each, and of their sureties, 5l. each, that they will not suffer unlawful gaming, nor other disorderly practices in their houses. By 39 Geo. III. c. 113, every person, excepting those who sell ale in fairs, who shall sell by retail ale or beer without licence, is liable to a penalty of 20l. for the first offence, and for the second shall moreover be incapable of being afterwards licenced to keep an alehouse, with all costs. The licence is granted on the first of September, or within twenty days after, at a general meeting of the justices for the division to which he belongs, upon his producing a certificate to his character, unless, by living in a city or town-corporate, this last circumstance is dispensed with, and continues in force for one year only. Ale-house keepers, selling ale in short measure, are liable to a penalty not exceeding 40l. and not less than 10s. and likewise to a fine of 10s. for permitting tipping, &c. 26 Geo. II. c. 41. 29 Geo. II. c. 12. 5 Geo. III. c. 46. 30 Geo. III. c. 38, and 32 Geo. III. c. 59. By the last act no person can sell wine by retail to be drank in his own house, who has not an ale-licence.

A. E. measure. See MEASURE.

A. E. ale-fizer, a rent, or tribute, yearly paid to the lord-mayor of London, by those who sell ale within the city.

A. E. aler, is an officer appointed and sworn, in every court-leet, to take heed that there be a due size, and goodness of bread, ale, and beer, sold within the jurisdiction of the leet.

A. E. is used by some of our ancient English writers, and particularly in composition with other words, for featial.

Thus, bridal or bride-ale is the feast in honour of the bride or marriage; leet-ale in some parts of England denotes the dinner at a court-leet of a mayor for the jury and customary tenants; lamb-ale is used for an annual feast at lamb-flucting; Whitfun-ale is the name by which in the midland counties the rural sports and feasting at Whitfuntide are denominated; and church-ale was a feast established for the repair of the church, or in honour of the church-saint, &c. See Warton's Hist. of English Poetry, vol. iii. p. 128.

Church-ales, as they are described by Pierce, bishop of Bath and Wells, in his answer to the inquiries of archbishop Laud, are when the people go from afternoon-prayers on Sundays to their lawful sports and festivities in the churchyard, or in the neighbourhood, or in some public-house, where they drink and make merry. By the benevolence of the people at these festivities many poor parishes have cast their bells, and beautified their churches, and raised flock for the poor.

Clerk-ales, or lesser church-ales, were so called because they were for the better maintenance of the parish clerk; and there is great reason for them, says his lordship, for in poor country parishes, where the wages of the clerk are but small, the people thinking it unfit that the clerk should duly attend at church, and not gain by his office, send him in provision, and then come on Sundays and feast with him, by which means he sells more ale, and makes more of the liberality of the people, than their quarterly payment would amount to in many years; and since these have been put down, many ministers have complained to me, says his lordship, that they are afraid they shall have no parish clerks. A 'bid-ale is when a poor man, decayed in his substance, is set up again by the liberal benevolence and contribution of his friends at a Sunday's feast. The people were fond of these recreations, and the bishop recommends them, as bringing the people more willingly to church, as tending to civilize them, and to compose differences among them, and as serving to increase love and unity. But the justices of the peace were of a different opinion, and signed a petition to the king, in which they declare that these revels had not only introduced a great profana- tion of the Lord's day, but riotous tipping, contempt of authority, quarrels, murders, &c. and were very prejudicial to the peace, plenty, and good government of the country, and therefore they prayed that they might be suppressed. Two judges in the western circuit, in 1653, made an order for suppressing them; but Laud complained to king Charles I. of their invading the episcopal jurisdiction, and they were summoned before the council, reprimanded, and enjoined to revoke this order at the next assemblies. Neal's Hist. Puritans, vol. i. p. 567, 410.

A. E., in Roman Antiquity, signifies, in general, games of chance. They were forbidden by the Cornelian, Publician, and Titian laws, except in the month of December. Hor. Od. iii. 24. 58. Martial, iv. 14. v. 89. xiv. 1. These laws, however, were not strictly observed. The character of gamblers, aleatoris or alones, was held infamous. Cic. Cat. ii. 10. Pliny, ii. 27.

A. E., in a more limited sense is applied by Roman writers to a particular game played with dice, in a pair of tables, somewhat after the manner of our back-gammon, or trictrac. Instead of our men, they played with white and black stones, which were moved this way or that, as the dice directed. Alea in this sense appears to have been the same game with what the Greeks called petitia and chibia; the Romans sometimes tabula, tessafrus, and XII. scripta.

A. E., the surname of Minerva, given to her by Ales, king of Arcadia.

A. E., in Ancient Geography, a town of Arcadia, south-east of Stymphalus. It was founded by Ales, and had three
three considerable temples, viz. those of the Ephesian Diana, of
Minerva Alea, and of Bacchus. The fall of Bacchus, called
Skiira, was celebrated every third year; and Pausanias
relates, that on this occasion they privately scourged the
women at the altar of this deity.

Alea was also a town of Thessaly, and another of Spain,
where Steph. Byz. places the Carpetani.

ALEANDER, Jerome, in Biography, was born in
1480, and distinguished himself in the 16th century by his
violent opposition to Luther and the Reformation. Luther
says he was a Jew, probably on account of his accurate ac-
quaintance with the Hebrew language; but Bayle feews that
he was descended from a Catholic family of distinction in Il-
tria. His memory was singularly retentive, and enabled him
to acquire not only the Hebrew, Greek and Latin, but also
many modern languages. According to Luther, who is con-
tradicted by Bayle, he was at Rome in the pontificate of
Alexander VI. and was secretary to the infamous Cesar
Borgia. It is acknowledged, however, that he was invited to
France by Lewis XII. in 1508, to teach the Belles Lettres
in the university of Paris. In this situation he was so much
clemenced, that he attracted the attention of Leo X. and by
the recommendation of this pontiff he became secretary to
the cardinal de Medici; and afterwards succeeded Acciaioli
as librarian of the Vatican. In 1519 he was sent by Leo as
his nuncio into Germany; and in the diet of Worms he de-
claimed for three hours against the doctrine of Luther.
Although he declined the contend to which Luther challenged
him, he had influence sufficient to obtain an edict, which he
himself drew up, for burning his books and prostrating his
person. In 1531 he was again nuncio in Germany, and at-
ttempted, though unsuccessfully, to dissuade Charles V. from
making a truce with the Protestant in this country. Having
been created cardinal by Paul III. in 1537, he was sent a
third time into Germany, where, as the pope's legate, he ex-
serted himself in checking the progress of the Reformation.
Upon his return to Rome he died in 1542, in consequence of
taking too many unnecessary medicines, and just as he was
finishing a large work against all the professors of literature,
which was never published. The works which he has left are
Greek and Latin Lexicon, printed at Paris in 1521, fol. and a
Greek Grammar, printed at Straßburg in 1517, 8vo. Luther
represents Alexander as a man destitute of principle,
violence of passions, inflamable avarice, and licentious conduct;
but he was an adversary, and allowance should be made for
the feelings and language of resentment. Erasmus speaks
with respect of his learning, but complains of his undecided-
ness as a friend, of his want of veracity, and of the injury
which he suffered from his accusations. Alexander's mortifi-
cation at feeling the progress of heresy, notwithstanding his
utmost efforts to refrain it, is emphatically expressed in the
epitaph, which he composed for his own tomb.

"Kατάπνων ὑπὸ διασέκερα ὑπὸ πεπεραὶομένου
Πολέμου, ὄψιν ἡν αὐτοὺς ἐν μοιραῖς.

"Not unwilling I resign my breath,
For to behold life's ill is worse than death."  
Gen. Diet.

ALEXANDER, Jerome, the Younger, the nephew of the
former, was by profession a civilian, and a writer of some
discrimination in the 17th century. He was secretary first to Ban-
dini, and afterwards to Barberini at Rome, and a member of
the literary academy denominated Humorists; for which
society he wrote several pieces, and one on the device adopted
by the society. In the way of his profession he wrote
"Commentaries on the Institutes of Caixus," and as an anti-
quarian he wrote a piece intitled, "Explication antique to-

bulae Marmorae Solis effigie sculptae," &c. printed in 1610
at Rome, in 1616, and at Paris in 1617. He also wrote
Italian and Latin poems, and a couple of ecclesiastical af-
fairs. His death, which is laid to be owing to excess of eat-
ing, happened in 1631; and his funeral, which was magnifi-
cient, was conducted and attended by his associates of the

ALEATORIUM, in Roman Antiquity, was the place
where they played at alea.

The aleatorium was near the sphæricum; that the sporti-
omen, when tired with the pila, or more robust exercices,
might refresh themselves in the aleatorium.

ALEBECCE, in Ancient Geography, a town of Gaul,
supposed to be the same with Albece.

ALEBUS, a river of Spain.

ALEC, in Ethnology, a name given by Gaza, in his com-
mentaries on Aridote, to the fish called by that author ma-
htes, and by Ovid meneca. It is of the sparus kind.

ALECOST. See Tabacetae.

ALECTO, in Mythology, one of the three Furies, daugh-
ter of Acheron and Night, or of Pluto and Proserpine; she
was represented with vipers about her head and wings, and
armed with vipers, scourges, and torches. The name de-
notes envy, or that which has no reft; being derived from
α ἂν ψευδόμενον, I refl. See a fine description of this Fury in
Virgil, Æn. vii.

ALECTO, in Entomology, a species of Sphinx, with the
fore wings grey above, and the posterior red, with a black
base and margin; found in India.

ALECTOR, in Ornithology, a species of Crax, with a
yellow cere, black body, and white belly.

ALECTORIA, derived from alactor, a cock, in Natu-
ral History, a fome faid to be found in the stomach, liver, or
rather gall-bladder of old cocks.

It is ordinarily the figure of a lupine, and seldom ex-
cedes the bigness of a bean. It has abundance of virtues at-
tributed to it, but most of them are fabulous.

This is otherwise called alectorius lapis, sometimes alector-
libera, in English the cock-stone.

The more modern naturalists hold the alectorius lapis to be
originally swallowed down, not generated in the stomach or
gizzard of cocks and capons.

ALECTORICARDITES, compounded of the Greek
alactor, cock, and νεφρός, heart, in Natural History, a name
given by Plut to a figured fome resembling a pullet's heart,
with the fat near the fahas of it, and the coronary vessels de-
scended from it.

ALECTORIUS lapis, is used for a small species of bufo-
rites, or disjoint segment of a palate of a fifh, approaching to
the nature of the cedalonius lapis.

ALECTOROLOPHUS, in Botany. See BARTIA, PEDICULARIS, and RHINANTHUS.

ALECTOROMANTIA, from alactor, a cock, and μαν-
tia, divination, in Antiquity, an ancient kind of divination,
performed by means of a cock.

This art was in use among the Greeks; and the usual
maner of it was this. A circle was made on the ground,
and divided into twenty-four equal portions, or fpaces; in
each of which spaces was written one of the letters of the
alphabet, and upon each of these letters was laid a grain of
wheat. This done, a cock was turned loose in the circle,
and careful observation was made of the grain he pecked.
The letters corresponding to those grains were afterwards
formed into a word; which word was to be the answer de-
fined.

It was thus that Libanius and Jamblichus sought who
should succeed the emperor Valens; and the cock answering

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to the spaces of F.O., they concluded upon Theodore, but by a mistake, instead of Theodosius. The truth of this story is disputed.

There are also other species of alderetornia: in some the angi, in others, addressed to the crown of the neck, wherein regard was had to the time of the day, whilst before noon or after: to which some added the consideration of the sign the sun was in, and the motion of the moon. Others speak of a kind of alderetornia performed by help of a ring.

Phil. Trans. N. S. 162.

ALECTRA, in Botany, a genus of the dicynum anginodermum class and order: its characters are, that the calyx is a perianthium, one-leaved, two-dipped, upper lip two-cleft, lower three-cleft; the leaves ovate, obtuse, shorter than the tube; the corolla one-petalled, tubular; the tube gradually widened; the border expanding, five-parted; the parts broadly lanceolate, obtuse; the filaments, four filaments, inserted into the tube, filiform, bearded, of the length of the tube, two of them a little shorter, anthers twin; the pistillum, a germ exiate, fylle filiform, of the length of the filaments, stigma incurved, a little thicker than the style, and of the same length, situated on both sides; the pericarpium, a capsule, ovate, oblong, smooth, two-celled and two-valved; the seeds foliary and ovate. There is one species, viz. A. Caprifer, a native of the Cape of Good Hope, in grassy places near rivers, flowering in November and December, and growing black in drying. Martyn.

ALECTRAGONUS graven. See Festucu.

ALED, in Geography, a river of Wales, in Denbighshire, which runs into the Elwy.

ALEE, in Sea-Language, the situation of the helm, when it is pulled down to the lee-side of the ship, in order to put the ship about, or lay her head to the windward. See Hardehe.

ALECHIMO, in Geography, a baiia or district of the island Cyprus, situated on the coast, containing 28 villages, and 10,000 people.

ALEGAMBE, Philip, in Biography, a learned Jesuit, was born at Bruffel in 1592; and having finished his education, entered into the service of the duke of Olfara in Spain, and accompanied him to Sicily. After he assumed the habit of a Jesuit at Palermo in 1613, he taught philosophy at Cratz in Austria; and became professor and doctor of divinity in 1629. During this period he travelled through Germany, France, Spain and Italy, and was sent by the pope Urban VIII. to teach in his embassy to pope Urban VIII. When this mission was finished, he was retained at Rome by the general of the Jesuits as secretary of the Latin dispatches to Germany, and afterwards appointed privy of spiritual affairs, and auditor of confessions in the professed house. He died of the dropsy in 1656. His chief works was a "Bibliotheca de Antwerp," printed at Antwerp in 1645, and at Rome, by Botola, in 1675. Gen. DicM.

ALEGER, a name given to an inferior sort of vinegar, made of ale, or malt liquor, instead of wine. Power. Has given a description of the cheese in Alger. V. Power, Exper. Philos. Off. 5. p. 32.

ALEGRANZA, in Geography, one of the smaller of the Canary islands, situated at the north-east end of the Lanzarote, one of the larger. ALEGRE, a town of France, in the department of the Upper Loire, and district of Puy-en-Velay, five leagues south-east of Brooade, and four north-east of Puy-en-Velay.

ALEGRETE, a town of Portugal in Alentejo, upon the river Caiu, with the title of a marquisate, and containing about 900 inhabitants; 24 leagues south-east of Pont-Alegre. N. lat. 40° 6'. W. long. 6° 36'.

ALEGRINUS, John, in Biography, cardinal and patriarch of Constantinople, was a native of Abbeville in Picardy. He was legate a latere in Spain and Portugal, and died in 1240. His works were formerly in estimation, but are now disregarded.

ALEHOOF, in Botany. See Glichoma.

ALEI, in Geography, a river of Russia, which runs into the Ob on the left side of it.

ALENTHA, from 24.2.4, ecuone, in the Materia Medica of the ancients, a word used for all fatty bodies whatever. The oils of vegetables, and the fat of animals were all called by this general name. But these simple substances were not the only ones called by it, for it is very frequently used to express any sort of medicated oil impregnated with aromatic vegetables: but its general acceptation in this sense, was for such compositions as were intended to anoint the body; and therefore they were properly only vegetable or animal fats impregnated with the lighter parts of plants, and not clogged with an addition of powders, or with wax, or any thing of that kind, which might have given them the confluence ofointments. The ancient physicians were very fond of these compositions, which they applied either to some diseased part only, or to the whole body, and after they had made the patient use the warm bath to relax and open the pores.

ALEIUS CAMPUS, in Ancient Geography, a plain of Cilicia, placed by Strabo to the east of Sarus, between Adana and the sea. It is so called from Bellerophon's wandering and perishing there, after being thrown off Pegusus.

ALEKSEVKI, in Geography, a town of Russia, in the government of Simbirk, 30 leagues south-east of Simbirk. N. lat. 53° 15'. E. long. 50° 14'.

ALEKSIJEKSKE, a town of Russia, in the government of Saratov, 37 leagues north-east of Saratov.

ALEKSN, a town of Russia, in the government of Tula on the Ooca, nine leagues north-east of Kaluga. N. lat. 54° 44'. E. long. 36° 44'.

ALEMA, a city of Ciled, beyond Jordan, mentioned in the Macab. v. 26; and perhaps the same with Helmont-Debehani.

ALEMAN, Louis, in Biography, was born in 1390, and advanced rapidly through several gradations of ecclesiastical preferment to the archbishopric of Arles. He was much respected by Louis III. king of Naples, who, on his account, confirmed the privileges granted to the city of Arles; and he was honoured by pope Martin V. who had employed him in several services, with the dignity of cardinal. After the death of Martin V. he embroiled himself with pope Eugenius IV. by holding the council of Bari, of which he was president, in contradiction to his wishes; and he was excommunicated by this pontiff. He was again restored to his communion and dignities by pope Nicholas V. and sent as his legate to Lower Germany. On his return to his dioceses, he was usefully employed in reforming the clergy, and instructing the people. He died at Salon in 1450, and was canonized. With the virtues of an ecclesiastic he united the talents of a statesman. Nouv. Dict. Hist. Gen. Biog.

ALEMAN, Louis Augustin, was born at Grenoble in 1653, where he followed the profession of an advocate. His works were, "Remarks of M. de Vaugelas on the French Language," with a preface by himself; "New Observations, or a Civil War in France Upon Language," 12mo. Paris, 1683; "Monastic History of Ireland," 12mo. Paris, 1690; "Historical Journal of Europe for the Year 1694." Nouv. Dict. Hist.

ALEMANN, Alemanni, of Aleman, in Ancient Geography
Geography and History, the denomination of a body of Suevi, who appeared on the banks of the Main, and in the neighborhood of the Roman provinces, in quest either of food, or plunder, or of martial glory, about the year 214, or the 4th of the reign of the emperor Caracalla. Dion. C. H. L. X. v. p. 1350. Aenius Quadratus, an original Roman historian, cited by Agathias, (ib. i. c. 5.) informs us, that this hostile army of volunteers, which coalesced into a great and permanent nation, was composed of many different tribes, and on this account assumed the name of Allemanni, or All-men, i.e. men of all nations, to denote at once their various lineage, and their common bravery. They consisted chiefly of Suevi, who, in process of time, were joined by several other German nations and some Gauls; for we are told by Tacitus, that a considerable number of Gauls, abandoning their own country, went to settle beyond the Rhine, in that territory which had formerly belonged to the Suevi. Aurelius Victor, St. Jerome, and other writers place them between the Danube, the Upper Rhine, and the Main, in the present duchy of Wirtemberg. They were numerous and warlike, and were chiefly celebrated for fighting with great dexterity and bravery on horseback. Their abhorrence of slavery was so great, that even those who were taken prisoners by Caracalla chose rather to die than to be sold for slaves: for when they were actually sold, they not only destroyed themselves, but some of them dispatched also their children. Dion. C. H. L. X. v. p. 86. Their government was monarchical; and the objects of their worship were the same with those of the other German nations. Caracalla, in consequence of a victory which he gained over the Alemanni, in the year 214, was distinguished by the surname of Alamanicus. In 234, the 15th year of the emperor Alexander Severus, the Alemanni, accompanied with other German nations, passed the Rhine, took possession of the forts on the banks of the river, and ravaged Gaul. Alexander, returning from Persia, hastened to the banks of the Rhine, and as the Alemanni had repulsed the river upon the news of his approach, he ordered a bridge to be thrown over, preparing to attack them in their own country. But being affrighted by the numerous flocks, at the sight of Maximinus, this business devolved upon his successor. Accordingly Maximinus pursed them with great slaughter, and took many of their prisoners, with great spoil of corn and cattle; and the advantages he gained were thought to be so considerable, that the senate conferred upon him and his son the title of Germanicus. In the year 236, the fourth of Valerian's reign, the Alemanni made an unexpected incursion into Gaul, and laid waste the country; whilst those who dwelt on the banks of the Danube penetrated through the Rhenish Alps into the plains of Lombardy, advanced as far as Ravenna, and displayed the victorious banners of barbarians almost in sight of Rome. A large army was suddenly convened, at the appearance of which the Alemanni were terrified, and retired into Germany laden with spoil. On another occasion 500,000 of this warlike people are said to have been vanquished in a battle near Milan, by Gallicanus, at the head of only 10,000 Romans. Whether we give credit to the relation of this victory or not, Gallicanus seems to have formed an alliance with the Alemanni, and protected Italy from their fury, by marrying Pipa, the daughter of a king of the Marcomanni, a tribe of the Suevi, often confounded with the Alemanni. A party of them was defeated by Claudius in 258, and compelled to leave themselves by a precipitate flight into their own country. As soon, however, as they heard of the death of Claudius, they prepared for again invading Italy; 40,000 horse appeared in the field, and the number of the infantry doubled that of the cavalry. Their first object was a few cities on the Rhenish frontier; but as they proceeded they enlarged their views, and they traced a line of defences from the Danube to the Po. Aurelian, A.D. 270, having collected an active body of troops, marched with silence and secrecy along the skirts of the Hercynian forest; and when the Alemanni, laden with the spoils of Italy, arrived at the Danube, the Roman army, which lay concealed, intercepted their return. The dismayed barbarians, enclosed by the Roman legions, and reduced to a condition abject and distempered, sued for peace. Their ambassadors were received by Aurelian with every appellation of dignity; and when they ceded to his offer to conciliate a large sum, as the price of the alliance which they offered to the Romans. The emperor's reply was stern and imperious. He treated their offer with contempt, and their demand with indignation; and dissected them with the choice only of submitting to his unconditional mercy, or awaiting the utmost severity of his resentment. Aurelian, being suddenly called away into Pannonia, committed the destruction of the Alemanni, either by sword or by famine, to his lieutenants. But the barbarians made their escape, and returned towards the mountains of Italy. As soon as the emperor heard that they had liberated themselves, and were ravaging the territory of Milan, he hastened to march to the relief of Italy. The Alemanni, in the mean while, had spread themselves from the Alps to the Apennines; and, by a defolatory war, the force of the enemy remained unsubdued. Three considerable battles are mentioned, in which the principal force of both armies was obstinately engaged. In the first battle, fought near Phcenitia, the Romans received a severe blow, that the immediate disjunction of the empire was apprehended. But the firmness of the emperor restored in some degree the honour of his arms. The second battle was fought near Pano in Umbria; and here the Alemanni were totally and irrecoverably defeated. The flying remnant of their host was exterminated in a third and last battle near Pavia; and Italy was rescued from the inroads of these barbarians. During the alarm which preceded the decisive battle of Pano, the Sibylline books were consulted, A.D. 271; and the ceremonies which were enjoined were punctiliously observed. "These superfluous arts, says Mr. Gibbon, however puerile to themselves, were subfervient to the successes of the war; and, if, in the decisive battle of Pano, the Alemanni fancied they saw an army of espectres combing on the side of Aurelian, he received a real and effectual aid from this imaginary reinforcement." The emperor Probus, A.D. 277, delivered Gaul from the invasion of the Germans, and recovered 70 flourishing cities, which had been oppressed by those barbarians, who, since the death of Aurelian, had ravaged that great province with impunity. Probus pursed his Gallic victories, passed the Rhine, compelled nine of the most considerable princes of Germany to repair to his camp, to fall prostrate at his feet, and to accept such conditions as he thought proper to dictate: and in order to raise a bulwark against their future incursions, he constructed a stone wall of considerable height, and strengthened it by towers at convenient distances. From the neighbourhood of Neustadt and Raiffen on the Danube, it stretched across hills, valleys, rivers, and morasses, as far as Wimpfen on the Neckar, and at length terminated on the banks of the Rhine, after a winding course of near 200 miles. Within a few years after the death of Probus, this wall was overthrown by the Alemanni. In 287 they made another incursion into Gaul, but were defeated by Maximian, who in the following year passed the Rhine, and laid their country waste wherever he came with fire and sword. Dioclesian also at the same time entered Germany through
through Rhétia, and is said to have extended the confines of the empire to the source of the Danube. In the year 291 the Burgundians feized on part of the country belonging to the Alemani; and in 301 Conulfian us Chlorus, the father of Conulfian the Great, gained a signal victory over them, on which occasion the Alemani are said to have lost 65,000 men. Notwithstanding this loss, they did not long remain quiet; for in 310 they again crossed the Rhine, and ravaged the neighboring provinces: but Conulfian marching against them, defeated them in a battle, and obliged them to quit their booty and repair the Rhine. Some say he was called Maximus on account of this victory. In the 15th year of Conulfian's reign, the Alemani again attempted to make an incursion into Italy; and having advanced as far as the lake of Conifance, the emperor marched against them, and put them to flight. In the course of the same year another body of them, breaking into Gaul with the Franks and Saxons, took and plundered above 40 towns on the banks of the Rhine, and among these was the city of Cologne, which they almost entirely ruined. They were at length driven out of Gaul by Julian; but assembling near Strasburg, they marched against them, A.D. 317; and after victoriously they had remained for some time in full pursuit, the Alemani were entirely defeated, and driven completely out of Gaul. Julian ravaged the countries of the Alemani and their allies for some time, and granted them a truce for ten months. When the truce expired, he passed the Rhine on a bridge of boats, entered their country, and compelled them to sue for peace. Upon the death of Julian they again ravage Gaul; defeat the Romans in a pitched battle, but were afterwards defeated by Jovinus in three battles, A.D. 366. In the close of the following year they again rally, and pass the Rhine; but Valentinian gains a signal victory over them. In 369 Valentinian invades their country; and in 374 concludes a peace with their king Macrianus. In 378 they again pass the Rhine, and seize the neighboring provinces, but are defeated with great slaughter by Gratian. In 388 they submitted to Maximus, who had usurped the empire in Gaul, and agreed to pay him a yearly tribute. In the reign of Honorius a colony of the Alemani was allowed to settle in that part of the present Switzerland, which is separated by mount Jura from the Franche Comté, and by the lake of Geneva and the Rhine from the present Savoy and province of Vienne. About the year 411 the country bordering on the lake Lemano, or the lake of Geneva, was, according to Servius, inhabited by the Alemani. In 477 Audaciscus, king of the Saxons, and Childeric, king of the Franks, marched against those who had settled among the Alps, and put many of them to death. Upon the destruction of the western empire, the Alemani subdued that part of Gaul, which is now known by the name of Alsace, where they settled. These were joined by their countrymen in Germany, and those who dwelt between Mount Jura and the lake of Geneva; and in 496 entered Germania secunda, and waited the country; but they were overcome by Clovis, king of the Salian Franks, and dispersed. Those who settled in Alsace and near the lake of Geneva acknowledged him for their king. Others took refuge in Rhaetia and Noricum, where they were allowed by Theodoric, king of Italy, to reside. Many of them were transplanted by the fame prince into Italy, and the rest were permitted to settle between the Alps and the Danube. From this time the Alemani had no king of their own; but continued, as they were dispersed in several countries, subject partly to the Ostrogoths, who were masters of Italy, and partly to the Franks, who had dominion in Gaul. When the Ostrogoths ceded their territories out of Italy to the children of Clovis, the Alemani, those excepted whom Theodoric had transplanted into that country, submitted to the Franks. Gibbon's History, &c. vol. i. p. 417, &c. Vol. ii. p. 21, &c. Aene. Un. Hist. vol. xvii. p. 293-299.

ALEMMANNIA, or ALEMANNIA, in Ancient Geography, a name given to Germany, which was not known before the time of the Antonines, and then applied only to a part of it. The appellation is derived from the Alemani.

A L E M B E R T, JOHN LE ROND D', in Biography, an eminent mathematician and philosopher, and an elegant writer, was born at Paris, November 16, 1717. His surname D'Allemont was derived from that of the church near which he was expelled as a foundling by his mother, who is said to have been Madeleine Tencin, sister of the Abbé, afterwards Cardinal, Tencin. His father Defouches Canon, hearing of his situation in the house of a glazier, with whose wife he was put to nurse, yielded to the impulse of affection and duty, and took measures for his future subsistence and education. In acquiring the first rudiments of education among the Jansenists, he manifested signs of those extraordinary powers, by which he was afterwards distinguished. At the age of 10 years, his schoolmaster declared that he had nothing further to teach him; and during his attention to theological studies, he composed at a very early period, "A Commentary on the Epistle of St Paul to the Romans," which led the Jansenists to expect, that he would be an able champion in their cause, and become a second Pascal. But pursuing his education at the college of Mazarin, he transferred his attention from theology to mathematics, in which he found greater satisfaction, and in the knowledge of which he afterwards excelled.

Upon leaving the college, he retired to the house of his nurse, for the purpose of enjoying a tranquil retreat, and of prosecuting his studies without interruption. He hoped likewise to testify his gratitude for her former kindnefs by sharing with her the means of subsistence with which he was provided, and thus contributing to the increase of her domestic comfort. In this obscure situation he lived for many years, with the greatest simplicity, and derived satisfaction to himself from administering to the happiness of those with whom he was connected. His holier had no just conception of the extraordinary talents of his guest; and she could not help occasionally considering him as still an object of compassion. "You will never," said the one day to him, "be any thing but a philopber; and what is a philopher but a fool, who toils and plagues himself, that people may talk of him after he is dead?" With a view to the improvement of his fortune, or rather of the means of comfortably subsistence, he followed the advice of his friends in directing his attention, first, to the law, in which he took his degrees, and afterwards to medicine; but his attachment to mathematics prevailed over every other consideration, and induced him to decline the advantage which he might reasonably expect to derive from any other lucrative profession. At the age of 24, in 1741, he attracted attention by correcting the errors of Reynouard's "Analyse De Montre," which was a work of high estimation in the department of analytics; and he was admitted a member of the Academy of Sciences. He then affiduously examined the path in which a body moves in falling obliquely from a rarer into a denser fluid; and this investigation, which he satisfactorily prosecuted, engaged him in extending his views to the forces of moving bodies. The result of his speculations was, his "Treatise on Dynamics;" (Traité de Dynamique, 4to, Paris, 1743. Ed. 2. 1758;) in which he separates into two parts the action of the moving powers,
and considers the one as alone producing the motion of the body, in the second instant, and the other as employed to destroy that which it had in the first. This principle had been applied by M. d'Alembert, so early as the year 1744, to the theory of the equilibrium, and the motion of fluids, (Traité de l'Equilibre et du Mouvement des Fluides, Paris, 1744. Ed. 2. 1770,) and the discovery of it was succeeded by a new calculus, the first essays of which were published in a "Dificourse on the General Theory of the Winds," (Réflexions sur la Causé Generale des Vents, Paris, 4to, 1747.) which the academy of Berlin honoured with the prize-medal in 1746; and at the same time the author was elected an honorary member. This work was dedicated to the king of Prussia, who was terminating a glorious campaign by an honourable peace, in the three following Latin verses:

"Hæc ego de ventis, dum ventorum aecef alias
Palantes agit Aureliacos Fredericus, et orbi,
Infignis lauro, ramum pretentit olivae."

"Swifter than wind, while of the winds I write,
The fees of conquering Frederic speed their flight;
While laurel o'er the hero's temple bends,
To the tir'd world the olive branch he sends."


The numerous and valuable productions above recited, entitle d'Alembert to rank among the most celebrated mathematicians of the age. But he is no less distinguished by his genius, judgment, and taste, than by his mathematical knowledge; and he is deservedly regarded in France as one of the first writers of that nation. To him the original design of the French Encyclopedia has been generally ascribed; a work which was begun in 1750 by d'Alembert, Diderot, Voltaire, and many other learned men, and which has contributed in a very eminent degree to the diffusion of knowledge. Many of the most valuable articles in mathematics, history, and polite literature, were composed by M. d'Alembert; and the preliminary discourse, concerning the rise, progress, connections, and affinities, of the various branches of human knowledge, will be ever confidered by the best judges as the evidence of a well-informed and comprehensive mind, as a specimen of judicious arrangement and correct criticism, and also as a model of just thinking and good writing. Besides the valuable store with which he furnished this treasure of universal science, his talents were displayed in many separate publications on subjects of classical and polite literature. His "Traduction of select parts of Tacitus, ("Traduction de divers morceaux deTacite,") in 2 vols. 12mo. affords, says one of his biographers, an elegant specimen of his learning; and his "Memoirs of Chriftina queen of Sweden," is a masterly piece of biographical writing, in which the author evinces his acquaintance
acquaintance with the rights of mankind, and his courage in exerting them. His "Epistle on the Intercourse of Men of Letters," with Persons high in rank and office, exposed the mean servility of the former, and the insolent tyranny of the latter. A lady of the court, who heard the author blamed for exaggerating the despotism of the great, and the insufficiency which they required, observed: "If he had confuted me, I could have told him still more of the matter." These pieces, with other essays on subjects of polite literature, "Eloges" on Bernouilli, Terrasson, Montefquiens, Mallet and Dumaresqu, and "Elements of Philosophy," were collected into 5 vols. 12mo, about the year 1760, and published under the title of "Mélanges de Littérate, de Littérate, et de Philosophie." In 1765, M. d'Alembert published his "Dissertation on the Destruction of the Jefuits," (De la Destruction des Jéfuites,) in 12mo. Paris; a work which not only ridicules, with the keenest satire, the disciples of Ignatius Loyola, but treats with just severity their adveraries, and which exposed the writer to many opprobrious and unmerited reflections. In the year 1772, he was chosen secretary to the Academy of Sciences; and soon after this honour, he formed the design of writing the lives of all the deceased academicians from 1700 to 1771, as a continuation of the "History of the Academy," published by Medri, Pellon, and d'Olivet. This design he executed in three years, by composing 70 elegies or panegyrics, comprised in 6 vols. 12mo, and published at Paris in 1787, under the title of "Histoire des Mémorables de l'Académie Française, morts depuis," 1700, jusqu'en 1771. "This collection, notwithstanding some inequalities of style, is justly admired; it abounds with lively portraits, amusing anecdotes, ingenious paradoxes, and just reflections." As soon as M. d'Alembert engaged in the design of publishing the Encyclopædia, he emerged from obscurity, and became an object of attention, not only in the circle of his friends, to which he had hitherto been confined, but to the public at large. Whilst many approved and commended both the design and the execution of it, the freedom with which several articles were written, was condemned by others, and subjeeted M. d'Alembert, as well as others of his colleagues, to considerable obloquy. However, his literary merit was now thought sufficient to entitle him to royal patronage. In 1756 the interest of the minister, Count d'Argenson, obtained for him a pension of 1200 livres. In 1762, he was invited by the empress of Russia to undertake the education of her son, the Grand Duke, with the offer of a salary of 100,000 livres, and other privileges: but this lucrative and honourable office, though enforced a second time by a letter under the empress's own hand, his attachment to his country and friends, and his preference of literary leisure, induced him to decline. The next year he was invited to an interview with the king of Prussia at Weil; when they met, the king affectionately embraced him; and enquiring of the philosopher, "whether the mathematics furnished any method of calculating political probabilities?" M. d'Alembert replied, "That if such a method existed, it could be of no use to a hero, who could conquer against all probability." The king offered him the presidency of the Academy of Berlin, vacant by the death of Maupertuis. But though the ferment, occasioned in France by some articles in the Encyclopædia, and especially that of Geneva, and the odium he had personally incurred, might have led him to seek an asylum in the court of a philosophical prince, he declined accepting the flattering proposal; nevertheless a correspondence subsisted between the king and him as long as he lived. The letters are published in the "Polhumous works of the king of Prussia." This correspondence, and that with Voltaire and other eminent persons, his constant intercourse with learned foreigners, as well as disillusioned characters at home, and his influence in the academy, conduced to give importance to M. d'Alembert; and though he was called the Mazarin of literature, candour leads us to believe that his influence was owing more to his talents, learning, and virtues, than to artful management, and fupple address. His abhorrence of superflity and pritectude, it must be allowed, drove him into the extreme of infidelity; and he was not only lax in his religious principles, but on some occasions indecorous in his mede of attacking doctrines that have been generally received even among those who have been accustomed to think freely on the subject of religion. He seems to have adopted that style of deified nature, which becaves the world of a designing cause, and predilecting intelligence; and his zeal in propagating the free notions he had imbibed, actuated by his enmity to the Jesuits and clergy, and animated by intercourse with confidential friends of the same description, sometimes received a check, and required a leon of moderation even from the philosopher Frederic. "The eccentricity of his opinions," says a liberal biographer, "did not, however, destroy the virtues of his heart. A love of truth, and a zeal for the progress of science and freedom, formed the basis of his character: strict probity, a noble disinterestedness, and an habitual desire of obligeing, were its distinguishing features. Many young people, who discovered talents for science and learning, found in him a patron and guide. To worthy men, even in adversity and persecution, he was a firm and courageous friend. To those who had shewn him kindness, he never ceased to be grateful. Gratitude induced him to dedicate two of his works to two ministers, when they were in disgrace, the Count d'Argenson, to whom he owed his pension, and the Marquis d'Argenson, who had given him many proofs of respect and esteem. When in early life, Mad. de Tencin, informed of his singular talents, came to him, and fondly entreating him, discovered to him the secret of his birth: "What do you tell me?" he cried out: "Ah! you are but a stepmother; it is the glazier's wife who is my mother." Through life he retained for his nurse the affectionate tenderness of a grateful son. He remained in her house near 30 years; and did not leave it till in 1785, after a severe illness, he physicin represented to him the necessity of removing to a more airy lodging. His health, being reënited, he continued to occupy his honourable station among philosophers, till the 29th of October, 1783, when, in the 66th year of his age, he expired; leaving behind him the reputation of amiable virtues and eminent talents. Perhaps no charaster has ever appeared, which has more completely exemplified the union of strong mathematical genius with an elegant taste for polite literature." His eulogy by Condorcet is published in the "Histoire de l'Academie Royale des Sciences," 1784. Monthly Rev. vol. xxvi, p. 238. Nouv. Dicr. Hist. Hutton's Math. Dicr. Gen. Biol. ALEMERIC, Linnet, Alembie, Fr. An alembic is one of the numerous articles of distillatory apparatus. In the English laboratories and manufacturies its use is almost superceeded by the retort and still; but on the continent, especially in France, it continues to be the favourite vessel for distillations in the large way. The French indeed appear to have no word in their language synonymous with the English one still, and hence the difference between these two vessels is but very imperfectly noticed even in their best authors. As distillation depends on the separation of the volatile from the more fixed parts of a compound by the action of fire, it is obviously essential to
every apparatus for this purpose that it should consist of
at least two parts; the one for the reception and heating
of the matter to be distilled, and the other for the collec-
tion and condensation of the more volatile part when in
a state of vapour. Of all the vessels defined to this use
the alembic is the simplest and the most ancient.

Both Dioscorides and Pliny mention the 
\( \text{alembic} \) (ambix) which is described by the latter of these writers, as a
hemispherical iron cover, luted upon the earthen pots in
which mercury was procured by the distillation of cinnamar:
its proper, however, that the ambix was in the time of
Pliny a mere plain still, without any beak or gutter,
but that the mercury was being wiped off in small
drops from the inside of the vessel, the necessity of which
manipulation would be superceded by the invention of a
beak. The alchemists having adopted this instrument,
affixed the Arabian article \( \text{al} \) to its name, and made con-
siderable alterations in its form. Their object in all dis-
tillations and distillations being to separate, as much as pos-
able, the most volatile products from those that are less
so, they imagined that the greater distance which the va-
pour had to pass through, in its passage from the boiler
to the condenser, the more perfectly would the spirit or
quintessence be dephlegmated; for this purpose the body
of the alembic was made of a globular form, terminating
above in a long narrow neck, to the end of which was
luted the capital; (Chemistry, plate iii. fig. 10. A. the
body, B the neck, C the capital) sometimes for the purpose
of more effectually keeping down the impure particles,
the neck was bent in a zig zag or spiral direction. The char-
acteristic difference between an alembic and a still seems to
be in the condensation of the head or capital, which in the
alembic is contrived not merely to collect, but to condense
the vapour; whereas, the corresponding part of a still
serves merely to collect the vapour, which is transmitted
in an elastic state through the neck, and condensed in the
worm. In the figure already referred to, the distance
between the body and the capital is so great, that much of
the heat must be given off from the vapour before it
arrives in this part; the mere refrigerating power, there-
fore, of the atmosphere is amply sufficient to condense the
vapour into drops on the inner surface of the capital,
which, trickling down into the channel or gutter at the
bottom, are delivered by the beak into any vessel placed
to receive them. The length and narrowness, and con-
vulsion of the neck were, however, found to condense so
much of the vapour before it reached the capital, as to
render all procresses, in which it was employed, unsuccess-
tively tedious; besides requiring so high a heat as to alter
and injure the products very considerably; the neck was
therefore shortened and made wider, and in consequence
of this the vapour came into the capital more heated than
before; it was necessary to substitute a more powerful re-
frigertating caufe to the conical and varying action of the
external air; with this intention, the capital of the met-
talus alembics was inserted into a vellum of water, (fig. 11.)
called a refrigertatory, and thus the alembic, as far as con-
cerned the number and general disposition of its parts, was
completed.

The glass and earthen-ware alembics soon received all
the perfection of form which their materials would allow;
the body, instead of being a globe with a long neck, was
altered into a cucurbit; and the capital assumed a more
conical shape; the two parts of the apparatus were also
fitted closely into each other, by grinding with emery.
The irregular expansion and contraction of glass by heat,
rendered the use of a refrigertatory impossible, so that
when distilling briskly, it is necessary to cover the capital
with cloth soaked in cold water and frequently renewed;
thus requiring a constant attention, besides running the
risk of cracking the cucurbit, by a drop of cold water falling
upon it from the head. On this account, the glass alembic
is but little employed, although capable, when skillfully
managed, of distilling a much larger quantity in a given
time, than a vellum of equal capacity. (Fig. 12. A. the
body of the cucurbit, B the capital, C the cylinder, D the
neck.)

The metallic alembics being formed of more manageable
substances, and being appropriated to large procresses,
in which economy of time and fuel was of great importance,
invited and obtained a number of valuable improvements.
The most considerable of these are due to Beaume, a re-
presentation of whole alembic, as further improved by
Chaptal, is given in fig. 14. This vellum is composed of three
parts; the one marked A is the boiler, being a
hollow cylinder of tinned copper, of equal diameter at top
and bottom, but bulging out into a shouder at \( p \), by
which it is suspended over the furnace; in this part are
fixed two handles \( a a \), and a short pipe \( f \), fitted with a
cork, for the purpose of supplying water or any other fluid,
without the necessity of taking the apparatus as a
whole. B is a cucurbit or balneum made of tin,
of a cylindrical figure, with two handles, and a collar on
the outside, which fitting into the inner groove \( b \), of
the boiler, supports it when suspended within this last.
This third part of the apparatus is the capital, a section
of which is represented at C: \( s \) is the collar, by which it is
fixed on the inner groove \( b \), of the cucurbit \( B \); \( k \) is
the proper capital, in shape a short cone, made of tin,
terminating at its base in a circular channel \( a \), slightly inclined
wards the beak \( n \). Surrounding the capital, and closely
folded to it is the refrigeratory \( e \), made of copper,
and accommodated in shape to the capital; at the bottom is
a large stop-cock \( p \). For the distillation of water, or of
spirits from the wath, where a brisk boiling heat is required,
the liquor is put into the boiler, and the cucurbit is
omitted; but for the rectification of alcohol and other
similar procresses, the substance to be distilled is to be put
into the cucurbit, and the boiler being filled with water,
the heat is conveyed through the medium of this fluid,
and of course is more moderate and equal.

Most of the French brandies are prepared in alembics,
whereas all British spirits are manufactured in stills; the
advantage of the alembic is that less fuel is required, and
the spirit is but little exposed to the risk of becoming
empyreumatic. Its disadvantage consists in being less
expeditious, and in requiring greater accuracy in the tempera-
ture of the refrigeratory; if too cold, the vapour is
part condensed before it touches the inside of the capital,
and falls back into the boiler; if too hot, a portion of va-
pour escapes into the air; a greater proportion of water is required for the condensation of a given quantity
of vapour, than where a worm and still is made use of.

de Pharmacie.—Macquer's Dict.—Boerhave's Chemistry.

ALEMBROTHER. SALT OF. This term, the use of
which is derived from the alchemists, has been successively
applied to a variety of preparations and native salts. The
general idea which the word seems to convey, is that of
a flux or solvent, either to assist in the fusion of metallic
ores and earths, or to dissolve obstructions, and attenuate
vexed humour in the human body, when employed medi-
sicinaly. A peculiar kind, found at mount Olympus in
the island of Cyprus, was called alembroth, which was
said...
ALENQUER, in Geography, a town of Portugal, in Estremadura, situated on an eminence near a small river, which falls into the Tagus. It is said to have been built by the Alans, being anciently called Alenker rana, i.e. the temple of the Alans. It contains about 2500 inhabitants, is a marquisate, and has 13 parishes belonging to its district.

ALENSTEIG, a town of Germany, in the archduchy of Austria; four miles south of Bohmish Waidhoven.

ALENTAKIE, or ALENTÁK, a province of Littóon, upon the gulf of Finland; the capital of which is Narva.

ALENTEJO, or ALENTÉGIO, one of the largest but least populous provinces in Portugal, situated between the rivers Tagus and Guadiana, and extending from the mountains of Algarve on the south, to the frontiers of Estremadura on the north, and from the sea and Tagus on the west, to the borders of Spanish Estremadura and Andalusia on the east. Its length from north to south is computed at 36 leagues, and its breadth from east to west is nearly the same. It is called Alemtejo, i.e. alem do rio Tejo, q. d. beyond the river Tagus, because it lies in that direction with regard to Estremadura and the countries further north. It contains four cities, the chief of which is Evora, 105 towns, 358 parishes, and about 339,355 inhabitants. The towns are very populous; but there is a scarcity of villages, which contribute most to cultivation; and another cause of its scanty population is its always having been the theatre of war between Spain and Portugal. It contains a great number of fortresses, maintains ten regiments of infantry and four of cavalry, which are constantly recruited here, and form a fourth part of the military establishment of the whole country. The lands in this province are far from being well cultivated, being found only once in three years; though some of our geographers represent it as a fertile province, and call it the granary of Portugal. Its principal products are wheat and barley, and in many places it also affords grapes, olives, and other fruits, as well as game and fish. Some parts yield marble and gneiss. In this province there are three kinds of foil, viz. fertile black bold flat earth, which is found in the red clay of Elvas, Campomayor, Olivença, Fronteira, Estremoz, Beja, and Serpa; a lighter earth mixed with a little sand, which forms the foil round Evora and Arrabobos, where the bad kinds of wheat, barley and rye, succed very well, and cork trees and evergreen oaks also grow; and a sandy barren soil, which forms the heaths of Catarrinho, Ponte de Sor, Monte Argil, Tanus and Vendas Novas, a tract of country about 35 leagues in circumference. At present these heaths, which afford beautiful varieties of heath plants and evergreen shrubs, serve only as pasture for goats; though the clayey soil is very capable of cultivation; as are also marshy tracts which might be drained. The rivers in Alemtejo, particularly in winter, are very rapid, and do much damage. There is a small chain of mountains in this province, about seven leagues long, and two and one-half broad, which runs between the city of Evora and the town of Estremos, and which in reality belongs to the chain of Toledo. The coniferous trees are generally covered with cedars, which is used in some parts for heating ovens, and in other parts as pasture for cattle. The whole province is full of vagabond beggars, who beg or steal by day, and at night sleep in the huts of the huts of the bandits. The nobility keep large herds of sheep and goats, and thus prevent the heaths from being cultivated. The prosperity of this province is impeded also by the luxury of the peasantry, by the number of half-days, and of religious houses, and by the badness of the roads. The Upper

ALENTEJO
Aleppo would export, and consequently grow, much more corn, if there were but roads for its conveyance. See Link's Journey through Portugal, p. 150—164.

ALEOS, in Ancient Geography, a river of Asia, to the west of Smyrna, according to Pliny. 'To the waters of it was attributed the virtue of making the hair and skin to grow on different parts of the body.

ALEPPO, in Geography, the metropolis of Syria, is deemed, in importance, the third city in the Ottoman dominions. Although it is much inferior to Constantinople and Cairo with regard to situation, magnitude, population, opulence, and courtly splendour, it may be reckoned inferior to both these cities in the fulness of its air, the facility and elegance of its private buildings, and also the convenience and neatness of its streets. With respect to commercial advantages, it has much declined, but still continues to maintain a trade that is far from being inconsiderable. In Arabic, Aleppo is called Haleb, to which is usually added the epithet Al Shabba. According to the fabulous history of the Arabian writers, who trace the origin of this city to the migration of the patriarch Abraham into the land of Canaan, who reést for some time on the hill, where the castle of Aleppo is now situated, the appellation Haleb is derived from the circumstance of his distributing milk to the poor of a neighbouring village. Their frequent repetition of the words " Ibrahim, haleb," or "Abraham has milked," gave occasion, as it is said, to the name Haleb, which was conferred on the town that was afterwards built on this spot. The same history refers the epithet Al Shabba to a pied cow, which the populace distinguished by its bawling in the herd of the patriarch. Goliath and others, with much greater probability, deduce this term, which denotes a variegated grey and white colour, from the colour of the soil and of the buildings. Some have supposed that Aleppo was the Zobah of Scripture; but it was, more probably, the Berera of the Greeks. Aleppo is situated, according to celestial observations (see Com. des Temps, 1792) in N. lat. 36° 11' 25'' and E. long. 37° 9'', at a considerable height above the level of the sea, near the river Kowick, which runs in a small stream to the west of the city. Its distance from Scanderoon or Alexandretta, the nearest sea port, is in a direct line between 60 and 70 miles, but in the caravans between 90 and 120 miles. It is encompassed, at the distance of a few miles, by a circle of hills, which are in general rocky, scantily provided with springs, and totally destitute of trees, but affording good pasture for sheep and goats. Within this circle, there are hills and hillocks, which are intersected by plains and little valleys; the soil of which is in some parts of a reddish or black colour, rich and fertile, but in general whith, shallow, and mixed with many small flows. This city, including its extensive suburbs, occupies eight small hills, the intermediate valleys, and a considerable extent of flat ground, comprehending in the whole a circuit of about seven miles; though the city itself is not above three and one-half miles in circumference. The wall that surrounds it, which was built, or at least repaired by the Mamaluke princes, is neglected and mouldering in ruin. Besides this wall, the city was formerly defended by a wide and deep ditch, which is now filled with rubbish or converted into garden grounds. It has, at this time, nine gates, two to the south, two to the east, two to the north, and three to the west. One of the northern gates, formerly called the Jews' gate, which the son of Saladin changed into Bab al Nafer, or Gate of Victory, was once, according to the Missionsaries, the residence of the prophet Elisha, and it has lamps which are kept constantly burning in commemoration of that event. The castle, which stands on a hill near the north-east corner of the city, and which is encompassed by a broad deep ditch, about half a mile in circumference, may be distinguished at a considerable distance, but a traveller, approaching from the west, can hardly any other part of the city, till he gains the brow of one of the hills within two or three miles of the gates; and thus it becomes an extensive and striking object. The mosques, the minarets, and numerous cupolas, form a splendid spectacle, and the flat roofs of the houses which are situated on the hills, rising one behind another, present a succession of hanging terraces, intermixed with cypresses and poplar trees.

Aleppo is, in general, a well-built city, and the houses within are grand and handsomely. The streets are better disposed and broader than those of eastern cities: they are well paved and remarkably clean, and they have a commodious foot-way, on each side, raised half a foot above the other part. The mosques in Aleppo are numerous; of which seven or eight are reckoned magnificent, though none more than a single minaret, or spire, whence the people are accustomed to prayers. These minarets were first annexed to the mosques, as it is said, by Al Waleed, who succeeded to the Caliphate, in the 86th year of the Hegira. Into these mosques none but Moslems are permitted to enter; and at Aleppo, it is only one of them into the courtyard of which Jews and Christians are allowed admission. The public edifices, next in importance to the mosques, are the Khanes, or Caravansaries, intended principally for the accommodation of strangers, and partly as warehouses for goods. The Bazaars, or Markets, are lofty stone edifices, arranged in the form of a long gallery, arched above or roofed with wood. Of these the principal are situated close to one another, in that part of the city that is contiguous to the great khane; and others are distributed through several parts of the town, and the suburb called Bankia, where the corn-market is kept. The streets, in which are shops, for the necessaries of life, are also called bazaars, and they are defended from the sun by mats spread on wooden rafters, projecting from each side. The bazar gates are regularly shut at sun-set, and watchmen, provided with a pole and a lamp, are stationed for the night within them. These gates are secured merely by wooden locks and keys. There are also gates and watchmen in the principal streets, and by these the town is secured from nocturnal brawls and depredations. The natives, who are habitually sober and regular, retire to their habitations at an early hour, and the dread of being carried by the patrol to the Seraglio restrains the most intemperate from drunken frolics. The public baths, or hammams, do not contribute much to the embellishment of the city, as their fronts to the street are very simple; but the coffee-houses, which are spacious and handsome, and are opened through all quarters of the town, attract the notice of strangers. They are gaudily painted, and furnished with matted platforms and benches; and those of the better sort have a fountain in the middle, with a gallery for musicians. At certain hours of the day the coffee-houses are full of company, though they are not frequented by persons of the first rank. The dwelling-houses of Aleppo comprehend the fergelios, or palaces, the houses of the opulent merchants, and the habitations of the middling and ordinary people. The seraglio, in which the Bakhaw of Aleppo usually resides, is situated near the castle, and is a very ancient and extensive building, surrounded by a strong and lofty wall. The gates of this edifice lead to several interior courts, which are destined for barracks, stables, an hippodrome, and various other offices. The principal build-

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The city is supplied with water by means of an aqueduct from two springs, at the distance of about eight miles to the north. This aqueduct, which is laid to be coeval with the city, was repaired by the empress Helena, the mother of Constantine, and again repaired and enlarged by the son of Saladin, in 1218. It supplies with water a range of gardens, formed on its banks, and called the gardens of Babullah, which is the name of an adjoining village, and the water is distributed through the grounds by means of small intersecting channels dug in the earth; and regulations are established for its communication in due proportion to different perrons. This tract of gardens extends about 12 miles, and generally belongs to some effendee or aga, possessing sufficient authority for the protection of his tenants, or forms a part of some religious estate. The whole extent of these gardens is subdivided into square or oblong fields, bordered with dwarf trees, flowering shrubs, and taller trees, such as the plane, weeping willow, ash, and white poplar. Within these inclosures are cultivated mad-apples, melons, and cucumbers, with a variety of excellent roots, cabbages and greens for the kitchen; and in others, cotton, tobacco, fænum, palm-chrifti, and lucern; and fome are fown with barley, which is used in the spring as green fodder for the horses. Among these inclosures are large plantations of pomegranate, plum and cherry trees, and sometimes groves, compofed of the various fruit trees which the country produces. The gardens, tho' of Babullah excepted, are supplied from the river by means of Perlian wheels. In most of the gardens, there are summer-houses, furnished with fountains, and with kiofka, or a kind of balconies, projecting over the river. The Aleppo gardens are spoken of with rapture by the natives. They supply the city with greens, and fruits, and contribute both to the health and amusement of the inhabitants, by affording scope for exercise and a pure air.

In the vicinity of the city are many extensive quarries, which afford a gritty flone, when first dug easily cut and in-durated by exposure to the air; and the more ancient of these quarries have subterraneous excavations of great length, which serve the Bedouins for winter habitations, as stables for the camels, and as dens of debauchery to the Janizaries. The marble of Aleppo is of a yellowish colour, but by rubbing it with oil and exposing it to the moderate heat of an oven, it is made to re semble the red marble of Damascus. Aleppo is supplied with salt from an extensive plain at the distance of about 18 miles, called the valley of salt, or salt lake.

Aleppo, though encompassed by hills, is well ventilated, and enjoys a pure penetrating air, which is reckoned so healthful, that from the end of May to the middle of September, the inhabitants are accustomed to sleep exposed in their terraces, without receiving any injury. The spring her comes early in February, when the fields are covered with an agreeable verdure; the almond tree blossoms about the middle of the month, and is soon followed by the apricot, peach and plum. Early in May the corn begins to be yellow; and a few weeks bring on the harvest, and when the grain has been plucked up by the roots, the whole country bears a parched and barren aspect. Some flowers commonly fall in the beginning of June; but from the middle of this month to the middle of September, it is extraordinary to see rain. The heat of July and August is mitigated by the westerly breezes; but when these fail, the weather becomes extremely hot. When the wind blows from the north,
north-west, east, north-east, or south-east, the heat is extremely oppressive, and the air is dry and scorching, as if it proceeded from an oven. The eyes, lips, and nostrils are parched, and it produces a latitude, attended with an oppression at the breast, of which the natives are not less sensible than the Europeans. It is usual to exclude these hot winds by shutting the doors and windows. They do not, however, occur every year, nor do they produce such fatal effects as the desert wind, named 

The at end of August the Nile clouds, as they are called, make their appearance, and are often attended with dew. About the autumnal equinox the air is refreshed with flowers, which are termed the first rains, and are usually preceded by irregular gusts of wind that raise the dust in vortices. There are succeeded in 20 or 30 days by the second rains, which are more plentiful than the first, and after them the weather becomes variable and much cooler. The transition from the Autumn to the Winter is slower than that from Spring to Summer. The trees retain their leaves till the beginning of December, and the most delicate perennials have no fires till the middle of this month. The rigour of winter commences about the middle of December, and lasts forty days; but though there is almost always some frost in winter, many years pass without snow. The narcissus is in flower during the greatest part of the winter, and violets and hyacinths are plentiful in January. Although violent storms of wind are rare at Aleppo, squalls accompanied with heavy flowers, and sometimes with thunder, are frequent in the Spring and Autumn. Lightning, unaccompanied with thunder, is frequently seen in the night during the months of September and October; and it is sometimes seen in Summer; but the nocturnal sky, in the hot months, is almost always serene, exhibiting a glorious scene to the astronomer, who may indulge his study, and at the same time enjoy the cool air on the terrace. There are few years in which earthquakes do not occur at Aleppo; but they are generally slight and do no injury.

The nature of the soil near Aleppo has been already mentioned: in the more distant plains, it consists of a reddish, sometines of a blackish, light mould, and produces the fruits of the earth in great abundance. The fields near the city yield, in consequence of much manure, two or three crops of different kinds every year; but without manure, they are sown only once a year with different sorts of grain alternately, but are seldom suffered to remain fallow. They begin to plough in September; and the plough is drawn by one or two small cows, or by a single ass, in furrows so straight, that one would imagine a line muft have been used in tracing them. They sow wheat, barley, lentils, chickes, beans, chiceling, small vetch, a small green kidney bean, and Indian millet. The earliest wheat is sown about the middle of October, and barley so late as the end of February. They sowed the barley harvest begins by repelling the plough along the edge of the furrow; in sandy soil, they sow first, and then plough. The barley harvest begins in May, about 10 or 14 days before that of the wheat, and early in June corn of every kind is taken off the ground. Amongst the reapers in Syria, a custom prevails of accosting a passing traveller and presenting him a handful of corn, with a general flout; and a small present is expected in return. The corn, when reaped, is carried on asses to the summit of the nearest hill, and being laid on hard even ground, it is separated from the chaff, not by threshing, but by means of a sledge fixed on two or three rollers, and armed with several iron rings, with ferrated edges, so sharp as to cut the straw. This machine is drawn by oxen, mules, or asses, and driven by a man seated on the sledge, and as it
cultivated, it has been inferred from this circumstance, that the winters in Syria are now more rigorous than they were in former times, and this is the opinion entertained by the natives. Among the vegetables which form part of the diet of the inhabitants, the mad-apple (Solanum Mclunguena of Linneas), of which there are three varieties, claims a principal place. Their other edible vegetables, we shall not recite. Of the vegetables produced in the fields without culture there are capers, horace, common mallow, forcel, dandelion, water cress and trifles. Savory is much used to give a relish to their bread.

The number of inhabitants at Aleppo has been computed at 300,000, but Dr. Ruffell conjectures that they do not now exceed 255,000, of whom 220,000 are Turks, 35,000 Christians, and 5,000 Jews. M. d'Arvieux (Memoires, tom. vi. p. 474. Paris, 1755.) makes the whole number of houses and public buildings in 1693 to amount to somewhat more than 14,100, and the number of dwelling-houses 13,530. From an account preferred by Dr. Ruffell, and supposed to be obtained from the office of the Mohaffil, the number of houses in 1752, amounted only to 10,742; so that, if these accounts be true, there had been a decrease from 1693 to 1752 of 2,628 houses. M. Volney observes, that as this city is not larger than Nantes or Marfilles, and the houses consist only of one story, it is not probable that the number of inhabitants should exceed 100,000. The language universally spoken by the natives is the vulgar Arabic; and the 'Turkiah,' which is spoken by people of condition, and which is the court language used in the franglés, is said to be corrupted by the concourse of strangers from the northern provinces.

The people are generally of a middle stature, rather meagre than corpulent, and neither vigorous nor active. Their complexion is naturally fair, their hair black, or of a dark chestnut colour, and their eyes for the most part black. The females affect to appear full and plump; they use no flax, and wear their girdles very loose. The men gird themselves tightly with a broad belt, and a long shawl寺院. The people that are exposed to the sun become swarthy.

The men dress in the long eastern habit, and during six months in the year wear furs. Under the furs their garments consist of a silk or linen skirt, and drawers, wide trousers of red cloth, to which are feathered flocks of yellow feathers, serving for breeches, stockings, and within doors, for shoes; but in walking, they use slippers without heels. They also wear a waistcoat, called a kuhbaz, that comes lower than the knee, and a long veil reaching down to the heels, which covers all, and is named a dalmah. Above the dalmah, they have a long Persian shawl, and a belt under the waistcoat, and to this shawl they attach a small dagger or knife, and with men of business it serves to support a silver inkbird. For an account of the turban, see Turban. The Abai is a silk, or camlet gown, with large sleeves, laced down the fronts with narrow gold lace, which is worn in summer instead of the kurk, or loose gown trimmed with furs. Abai is the name of the ordinary vestment of the Arabs. The drap of the ladies in many respects resembles that of the men. But their dalmah and kuhbaz fit clover to the shape, and not folding over the breasts, leave the neck uncovered. Instead of the costly, long-haired furs of the men, they use fable or ermine, and they are formed in a different fashion. The ladies are fond of thick long hair, and their head-drefs, consisting of a warm cloth cap, under cotton and muffin, which compose the rest of the attire, is much warmer than that of the men. They wear ear-rings, a necklace, or collar, of gold, large clumsy gold bracelets, on the wrist and ankles, a string of zechins close to the hair, on the forehead, and another, very long, across the body in the manner of a sash. Both sexes wear rings on the fingers, and some women wear them on the toes. The use of rouge is very little known; but the women tinge their fingers, hands, feet and toes, of a dusky red or yellow colour, by means of a paste formed of the powdered leaves of henna and water. See Alcanna. The hands and feet are afterwards covered with another paste, composed of flour and water, with crude salt ammoniac and quicklime, which changes the colour into a fort of black or very dark green. They also tinge the inside of the eyes-alls with a powder, called kholol. See Alcohol. The women apply another composition called khatat, to the eye-brows, which tinges them of a fine black colour, and makes the hair smooth and glossy. It is the custom with the men to let the beard grow, after a certain age, or after performing the pilgrimage to Mecca, and much pains are bestowed upon dressing it, but many of the Turks wear whiskers only. Some conceal the appearance of grey hair by tying the beard with a black or red dye; the practice, however, is not deemed reputable, and is not common. Perims of both sexes use a variety of perfumes, composed of musk, sandal wood, and spikenard, which they few up in small bags and carry in the breast pockets. Women of every class, when they go abroad, wear thin yellow boots, reaching up half the leg, and over these yellow baboos or flippers, or in wet weather wooden clogs, called kubkak. They never appear in the streets without their veils. The ordinary Aleppo veil is a linen flasck, covering the whole habit from head to foot, and concealing the whole face, except one eye. The veils of the Christians and Jewish women, are formed of plain white calico, which the Turkish women checker with blue and red, and the Jewish women have one arm free, somewhat in the manner of the Scots plaids.

As to the ordinary diet at Aleppo, it consists of a considerable proportion of animal food, which is cut in small pieces and blended with rice, herbs, and strong sauces. The lower people live mostly on rice, but the, milk, new cheese, greens and summer fruits, with a very small proportion of mutton. Their ordinary bread is formed into flat cakes, and made of wheaten flour, not well fermented and ill baked. Leaves of a superior quality are framed over with the seeds of tamarind, or fenian flower. The Piahaw and Borjde are common dines. M. d'Arvieux remarks, that a greater quantity of fruit is consumed at Aleppo, than in any three cities in Europe of equal size. The butter brought to Aleppo is made of the milk of goats, cows, sheep, and buffaloes, and is churned in goat-skins, and thus brought to market. Coffee, without sugar or milk, is in use among people of all ranks; this is drank constantly after meals, and in all familiar visits presented with the pipe. It was introduced into Syria about the middle of the 16th century. See Coffee. Tobacco is smoked immediately by all the men, and by many of the women. Their tobacco is brought from different parts of Syria, particularly from Latakia, and is much milder than the American. See Tobacco. The tobacco pipes are made of the twigs of cherry-tree, almond, rose or jasmine, dexterously straightened and bored, in length from three to fix feet, and decorated with silver or gilt ornaments, with mouth-pieces of amber or ivory; the bowl is made of reddish clay and often changed. See Kalian and Margeell. The practice of taking snuff, though the Porte, about the year 1760, granted a monopoly for making and vending Rappee snuff at Aleppo, is much less common than that of smoking. The culion of taking opium is held at Aleppo almost equally scandalous with
with that of drinking wine, and is Practised by few openly, except by persons regardless of their reputation. The bagno, or hummus, is much referred to by persons of both sexes. The people of Aleppo in general lead a sedentary life. Dancing is not reckoned a genteel accomplishment for people of condition, and even among the vulgar it is seldom practised, unless by such as make it their trade. Chefs, and a kind of back-gammon, which they are paid to have learned from the Pagans, are played by both sexes. They have two other games unknown in England, called mansala and tab-waduk. The former is played by two persons, and the success depends chiefly on memory and a readiness in counting. The latter is a mixed game: the movement of the pins on the board being determined by calling four small flat sticks, on one side white and black on the other. They are particularly described by M. d'Arville and Nichilius. The Turks play merely for amusement; gaming being prohibited by the Koran. The natives of every denomination observe very regular hours. They rise with the sun, and are in bed between nine and ten at night. The women never appear in the street after it is dark. The coffee-houses, as we have before observed, are not frequented by persons of the first rank, but by all others indiscriminately. They are entertained by a band of music, a puppet-show, and a story-teller. The Alkappen have, in general, a correct ear, and are fond of music. The instrumental music is of two kinds: martial and loud, intended for the field, and the less solemn, adapted to the chamber. A band of music, belonging to the castle, smaller than that of the bazaar, performs regularly twice a day from the battlements; and the bazaar's band performs also twice a day in the court of the seraglio. The feasts of the natives, who are frugal in their domestic economy, have every appearance of plenty and hospitality; and all great entertainments are commonly attended by a set of buffoons, who are partly musicians, and others, who for hire assume the character of professed jesters.

The first class of the inhabitants of Aleppo consists of Turks, comprehending all Mahometans, and they amount according to Russell, to about 200,000. These are a mixed race, partly defended from those who inhabited the city before it was subdued by the emperor Selim in 1516; partly from such as came to settle in the new conquest, and from others drawn thither by commerce from most of the Ottoman provinces. They are united under the same government and belong to the sect of Sonnites. The merchants at Aleppo are numerous, and some of them are esteemed opulent. The trades are divided into different companies, under their respective masters, or sheiks or sheikhs. The mechanics are, in general, industrious and frugal; and the Alkappen possess the art of tent-making unrivalled; the tents for the sultan and great officers of the Porte being usually made in this city; and many hands are employed in the flax and cotton manufactures. The keffiyahs, or small mantles, in the city and suburbs, are inhabited by a considerable number of Arabs. These are called Bidowens or Bidowins, and the men are employed in various kinds of manual labour.

In the suburbs of Aleppo there are many families of Turkmans, who are a stout hardy people, chiefly employed in agriculture, or as camel drivers in the caravans; and there are also a great number of Kusdeens, who are similarly employed.

With regard to nuptial contracts and ceremonies at Aleppo, they are similar to those generally observed among the Turks. When a matrimonial engagement is projected, the proposal is intimated to the mother of the intended bride, and the relations on both sides proceed to make the necessary inquiries. If the result prove satisfactory, the young woman is formally demanded of her parents by the father of the young man. Substitutes are then appointed to stipulate the necessary conditions; and these proxies adjust the sum to be paid to the bride’s father, with other articles of the marriage contract. When the money is paid, the contract is regularly signed and sealed, and then the Cadi grants his licence for the marriage. About ten days before the wedding, the bride is invited by her female relations to the bagnio, and there she is entertained till the day preceding the marriage, when they proceed to apply the henna. At Aleppo it is customary for the father of the bride to make some addition to what is paid by the bridegroom, and to lay it out for the benefit of his daughter; but among the Bidowen inhabitants and in the villages, the father usually retains a part of what he received for his daughter; and in this respect they may be said to feel their daughters. This custom of purchasing wives is practised by all the oriental Christians, as well as the Turks, and appears from the sacred writings, to have been the ancient practice. Accordingly, among the Arabs, daughters constitute the riches of a family. On the nuptial day, the women go in procession from the bridegroom’s house to fetch the bride, who is brought home amidst the acclamations of the women, accompanied by her mother, and several other female relations. The procession is in the day time, and at Aleppo, they do not carry tapers, as some travellers have reported. On their arrival in the house, the remainder of the day is spent in feasting and music. When the bride, covered with a veil of red gauze, and dressed in her wedding garment, has been introduced to her husband, the relations withdraw, and continue feasting till morning; and the nuptial rejoicings last several days. The mother for the most part fiddles her child, unless prevented by incapacity, and the child is seldom kept at the breast less than two years, sometimes three or four; and the mother often fiddles during the whole time of pregnancy. During the first week the child is swaddled, and then dressed in clothes which are more loose and easy; and as soon as they are able, they are left at liberty to crawl about on the carpet. When children can support themselves, they are usually carried from side to side by the shoulders; and on being fagged with the expression used by Faizah, ch. V. v. 4, upon which bishop Lowth comments (Notes on Faizah, p. 258). In this latter part of a letter, literally that which is now used by the Arab women. The difference of carrying a child in the bosom or on the shoulder, referred to in the same passage, and noticed by Harmer (Obs. on Scripture, vol. ii. p. 366), must be owing to their different ages, without regard to sex.

In the funeral ceremonies practised at Aleppo, the women perform a conspicuous part. When a person is dangerously ill, one or two sheiks are employed to read portions of the Koran, and to pray by the bedside. At the approach of death, the attendants turn the face of the dying person towards the kebail, that is, towards Mecca. When he expires, the women in the chamber give the alarm, by shrieking as if they were distressed, and are soon joined by all the other females in the harem. This conclamation is termed the Wulwaly, and is so thrilling as to be heard, especially in the night, at a prodigious distance. Schultens in his Commentary on Job x. 15, (tom. i. p. 278), considers the Arabic Wulwaly as corresponding to the Hebrew טלע, and to the Greek πέτον, and πέτον, and he supposes that the former Greek word was applied in a joyful sense. However, the Arabic wulwaly is applicable only to distress and affliction, and seems to have a greater affinity to the latter term than to the former, which was commonly used by the Greeks on joyful occasions. See Mark, v. 38. Plutarch refers to this practice in his account of Pontius.
fainting on the day of Cæsar’s death, when herulia, ap-
predning that she was dead, waited over her. (Brutus, 
Oper. tom. i. 991.) We also learn from Cicero, (de legibus, 
lib. ii. oper. tom. iii. p. 221, ed. Olivet,) that the extrava-
gnant exclamations of women at funerals was prohibited by the 
twelve tables. See PRACTICE. In a few hours the corpse 
is prepared for interment by ablation, and by sprinkling all 
the natural passages with cotton, sprinkling parts of it with 
a powder composed of spikenard and other aromatic herbs, 
and wrapping it up in a cotton winding-sheet. Over the 
hair, at the head of which is fixed a baton, on which the 
man’s turban, or the attire of the female head, is placed, is 
thrown a black pall, and over this the bell wearing apparel of 
the deceased. The funeral procession is attended by 
the acquaintance and kindred of the deceased; a number of the 
flakes, some of whom incessantly repeat Ullah, Ullah, 
and others chant verder of the Koran; and one person is 
the chief mourner, who manifests her grief, real or fictitious, 
by the most extravagant and frantic cries and gestures.— 
Other mourners are sometimes hired, who, at intervals, join 
in the general wailery. A funeral service is performed by 
the imam in some neighbouring mosque, and the corpse is 
then deposited in the grave, in a reclining posture, with 
the head to the west, and the face turned towards Mecca. 
A handful of earth is then thrown by the imam, or chelk, 
after a funeral service, into the grave, which is also done 
by others who fland near, and at the same time pro-
nounce a short benediction; after which the grave is 
filled up. The funeral service in life among the Kürdese is very 
lasonic, and is as follows: “If thou hast taken away, thou 
shalt restore; if thou hast given, it shall be restored to thee; 
and if thou doubtest this, thou shalt now be convinced.” 
The funeral service, recited by the iman at the grave, is as 
follows: “O man! from earth thou wast at first created, 
and to the earth thou dost now return: this transitory 
shade being the first step of thy progress to the mansions of 
eternity. If, in thy actions in life, thou hast been ben- 
ificent, God will pardon thy transgressions; and if thou 
hast not, fill the mercy of God has no bounds. But re-
member what thou didst profess in this world, that God is 
thy Lord, and Mahomed thy prophet—and thy belief in 
all the prophets and apostles, and that God's forgivingness 
is amply extended.” The sepulchre is visited by the near 
relations on the third, seventh, and fortieth day after the 
interment: they also celebrate the anniversary: solemn 
prayers are offered at the tomb for the repose of the deca-
red, and victims and money are distributed to the poor. 
The tomb is beset by the women, in their visits, with 
flowers and aromatic herbs; and the wailery is repeated. 
The men make no alteration in their dres as a mode of 
mourning; but the women lay aside their jewels, dres in 
their plainest garments, and wear on the head an embroi-
dered handkerchief of a dusky brick-clay colour. They 
commonly mourn 3 months for a husband, and fix for a father. 

The governor of Aleppo is usually a vizir bahaw, or 
a bahaw with three tails; though sometimes the province is 
confessed on an inferior bahaw of two tails. He seldom 
remains in office for more than 12 months at a time, though 
the office may be renewed in the face person; and infiuences 
occur, in which he has been continued for several successive 
years. The regular revenue of the bahaw is barely suffi-
cient to defray two-thirds of his annual expenses, including 
the fums which he is obliged to remit to Contantinople, in 
order to secure the interest of friends at the Porte. To 
this circumstance is owing the nefarious practice of making 
avanias upon the people, or raising money by false pre-
tences, in order to supply the deficiency. According to M. 

Volney gives nearly the same account with d'Arvieux; but he men-
tions an intance of one bahaw, who, within 12 or 13 
years, raised, by extraordinary extortions, in 5 months, 
160,000 l. 

A cadi, or judge, appointed by the Porte for one year, 
is sent annually from Contantinople, who brings with him 
his principal officer. A deputy, called Nabi, sits in the outer 
court, to hear inferior caufes, while affairs of moment are 
decided by the cadi in perfon. There are three or four 
subordinate tribunals in different parts of the town, which 
are farmed of the cadi by certain effendees, who, under 
his authority, determine petty fuits; but from these an 
appeal lies to the superior court of the cadi, or the great 
Mahkamy, which is the name of the old palace, where he 
resides. The cadi has no established falary; but he finds 
means to raise a handsome revenue, though not merely 
from the legal perquisites of office, which, however, are 
very considerable. The mufiti is nominated annually by 
the Porte; and he gives a fitva, or an opinion upon all 
cases that are laid before him; for which his fee is little 
more than a fluffling. The nakub, or chief of the threeces 
or greenheads, is nominated at Contantinople, and either 
annually confirmed, or changed. He judges in particular 
cases, and to his tribunal the threeces are amenable. The 
moftali, formerly called difter-dar, is reckoned the second 
perfon of the city in the civil line, and is usually appointed 
by the Divan, a temporary governor on the demise of the 
bahaw, till orders are received from the Porte. He is far-
master-general of the land-tax, the customs, and the capita-
tion-tax; his influence is extensive; he is much courted by 
the agus or land-renters, as well as by the merchants; and 
he lives splendidly. Volney states the moftali’s annual farm 
at 46,000/. besides 4 or 5000/., which he is obliged to 
pay to the officers at the Porte. The bahaw, moftali, 
cadi, mutti, nakub, and fardar or aga of the janizaries 
are, by their offices, members of the Divan, or council. 
The janizaries of Aleppo are mostly perfons who live in a 
domestic manner, in the exercise of their respective trades. 
They have no pay, but being enrolled in one of the odas or 
chambers at Contantinople, they enjoy in time of peace 
several privileges and exemptions. In war-time they are 
liable to be called out, and are obliged to provide them-
seats with arms, and to march to the camp at their own 
expenoe, as they receive no regular pay till they arrive there. 
Out of thefe is formed a city guard, under the command 
of the fardar, who holds his appointment from the janizary 
aga of Contantinople. They have a peculiar dres, and the 
attendants of the fardar, when he appears abroad, as well 
as himself, are distingugished by particular turbans. 

These janizaries were formerly subject to regular exercie 
and discipline; but within the last 50 or 60 years, says 
Volney, there no longer remains the flight trace of their 
ancient good order. When the bahaw or pacha abuses his 
authority, they are always the first to crect the standard of 
petition. The Turkish government revenges itself, it is true, 
by ordering the most active mutineers to be tríangled; but, 
in the first opportunity, the janizaries create other chief-
as, and affairs return to their usual course. The pachas, thus 
thwarted, have taken foreign soldiery into their service, who 
have neither friends nor families in the country. There are
of two forts cavalry and infantry. The cavalry, who alone merit the name of soldiers, assume for this reason the appellation of Drusda or Delchi, and likewise that of Delibabes and Layed, from whence we have formed Levantis. Their arms are short sabres, pilguls, muskets, and lances. They wear a kind of felt cap, nine or ten inches high, without any projecting rim; and their saddles are made in the English manner. In the rest of their clothing and accoutrements, they resemble the Mamalukes. Indeed, they are more like banditti than soldiers, and frequently act as such. Almost all the cavalry in Syria are Turkmans, Curds or Caramanians, who, after exercising the occupation of robbers in their own country, seek employment and an asylum near the peron of the pacha; and they often lay waste the country and pilage the peasants by open force. The infantry are a corps in every respect inferior to the former. Within the last 50 or 60 years, the peasants of Tunis, Algiers, and Morocco, have, under the name of Mograbins, or Men of the West, fought employment in Syria and Egypt; and they compose the infantry of the pacha. Their whole accoutrements and baggage are confined to a rusty firelock, a large knife, a leathern bag, a cotton shirt, a pair of drawers, a red cap, and sometimes slippers. Their pay is about 10s. and 10l. per month, out of which they furnish themselves with arms and clothing; but they are maintained at the expense of the pacha. The pay of the cavalry is double, besides which each horseman has his horse and ration, which is a measure of chopped straw and 15 pounds of barley a day. These troops are divided by ranks or colours, consisting of about 10 men each, under the command of an aga, who reduces their number in order to parcel out their pay. The superior agas tolerate this abuse, and the pacha overlooks it for the sake of the emolument derived from this species of fraud.

On the demise of a bashaw, the mohabiti takes possession of his effects till a capugi-bashaw, from Constantinople, comes to receive them in the name of the sultan. The estates of merchants, and of other public persons, descends to the heirs, agreeably to established laws, which allow a certain portion only to be devised by will, and the cadis is supposed to see strict justice done to the heirs. The property of merchants, strangers, who die in the public khanes, is subject to the inspection and care of the mohabiti, who detains it till it is claimed by the legal heir.

Crimes of a capital kind are very rare at Aleppo. The usual capital punishments are hanging, beheading, strangling, and impaling. Janizaries are strangled, not with a bow-string, but by a cord put round the neck, and then twisted with a stick in the manner of a tourniquet. The bodies of all who are executed remain for some days exposed to public view. Theft is uncommon; when it occurs, it is sometimes punished by amputation of the hand, but more commonly with the ball-nosed, which is performed with rods about the size of a small walking-stick; and this is the usual punishment for offences of an inferior kind. Banishment to the island of Cyprus, and the maritime towns of Syria, is chiefly employed for removing turbulent members from the city or the divan.

The agas are those who chiefly farm the lands; and the peasants are entitled to one-third of the produce, from which they annually deduct a part of what may have been advanced by the aga to stock the farm, and also a certain proportion of the avanits, that are from time to time imposed on the villages. These peasants are simply clothed, indifferently lodged, and live chiefly on coarse bread, leban, or a preparation of milk, pulse, barley and melons; but seldom take animal food. However, habit and ignorance mitigate the rigour of their condition, which they bear with patience, exercising out of the scanty pittance of the fruits of their labour, a spirit of hospitality.

The Europeans, or Franks, as they are called, residing at Aleppo, are English, French, Venetian, Dutch, and Tucian, or Imperial subjects. The language in common use is the Italian. The English factory consists of a consul and 10 merchants, a chaplain, chancellor, physician, and an officer named a chauffe, who walks before the consul, carrying a staff tipped with silver, and takes care of all letters and dispatches. The number of English houses in 1772 was reduced to four, and in 1783 to two. There are two druggomans or interpreters, Greek natives of Aleppo, who speak the Italian, but can seldom read or write any other language, besides the Arabic and Turkish. They have salaries from the Levant Company. Two janizaries are also kept in constant pay, who attend at the house of the consul, and walk before him when he goes abroad. The French factory is more numerous than the English, each merchant having a clerk or writer, or a person under that title, who afterwards becomes a partner in the house. The residence of the French in the Levant is limited to a certain number of years, after which they are to return to France. They have salaries from the Levant Company. Two janizaries are also kept in constant pay, who attend in the consul's house, and walk before him when he goes abroad. The French factory is more numerous than the English, each merchant having a clerk or writer, or a person under that title, who afterwards becomes a partner in the house. The residence of the French in the Levant is limited to a certain number of years, after which they are to return to France. They have salaries from the Levant Company. Two janizaries are also kept in constant pay, who attend in the consul's house, and walk before him when he goes abroad.
private merchants without permission; the eulogium on goods is very favorably rated; and in all fruits at the marketplace, above the amount of an incon siderable sum, they have a right to decline the competency of the court, and to remove the cause to Conftantinople. In consequence of the regard publicly paid by the government to the Europeans, they are commonly treated with civility by people of all ranks.

The Christian inhabitants of Aleppo are said by Ruffell to amount to 57,000; of which number the Greeks compose 13,500; the Armenians 6,750; and the Maronites 3,050; and the remainder consists of strangers, occasionally resident in the city. Each of the four Christian nations has a church, and enjoys perfect toleration under the Mohammedan government. The Greek nation was once opulent and flourishing; but it has long declined, and is now reduced to a very low condition. This decline is ascribed partly to the decay of commerce, and principally to the contests that have subsisted between those who adhere to the patriarch of the Greek church, and those who acknowledge the supremacy of the pope. The Greek language is almost obsolete at Aleppo. The Armenians are divided into two parties, the orthodox and the feliaminate; besides their own language, they speak the Arabic and Turkish; but their church service is performed in the learned Armenian, which is different from the language vulgarly spoken. The Syrians of Aleppo are mostly rec lassified to the Roman church. The Maronites are more connected with the Franks than the other sects. They acknowledge the supremacy of the pope, and have added many rites, borrowed from the church of Rome, to their own. Divine service is performed in Arabic. The native Christians have no monasteries at Aleppo, but contribute towards the support of several in ancient Lebanon and its vicinity. For the regulation of expenses, and the transference of benefices at the fagho, each of the Christian nations has a public agent or waksh; who, being elected in an assembly of the principal persons of the respective nations, is confirmed in his office by the bailiwick, and invested with a pectoral, as a mark of honour. The turban, usually worn by the Christians, differs somewhat in form from that of the Turks, and the face is blue and white striped; their drawers are red, and their draves is, upon the whole, more plain. In their mode of eating, they generally follow the Turks. Their women, when they appear abroad, wear a veil of white linen, and keep more at home than the Turkish ladies. They are extravagant in the article of drees, which varies in some circumstances from the Turkish fashion. They are more formal in their address, and their courtesy borders too much on servility. The men are generally rather favoring than affable; but those in easy circumstances are hospitably social. Those of them who have obtained protection, under the appellation of honorary interpreters, are distinguished by a peculiar furred cap and yellow dippers.

The computed number of Jews at Aleppo, says Ruffell, is about 5,000. They have one synagogue, which possesses a MS of the Old Testament, which, as they pretend, is of high antiquity. For its antiquity, they urge the concurrent tradition of their rabbies, and their submission to its authority in disputed passages, and also a prayer at the end of it for the preservation of the temple; from which they conclude, that it must have been written before the expedition of Titus, their prayers afterwards having been offered up for the restoration, and not the preservation of the temple of Jerusalem. A specimen of this MS was examined by Dr. Kennicott, who did not find sufficient reason for assigning such high antiquity to it as the Jews do. The Jews are distinguished by their violet-coloured baboono; and their turban, which is lower than that of the Christians. Few of them apply either to manufactures, or to manual trades; most of them are bankers or merchants; the others are brokers, grocers or peddlers. The established banker of the feragho is a Jew, and the private bankers of most of the grandees are likewise Jews. The Jews are generally more sober than the Christians. The lower people live chiefly on bread, pulse, herbs, and roots, dressed with the expiated oil of oleum; and they are of all people the most slovenly and dirty. Some of the women are handomely, but the proportion of such is small. Their head-dresses differ considerably from that of the Turkish and Christian ladies; and is commonly richly decked with pearls. Their boots and slippers are of a violet colour. Their veil is white, and in the presence of strangers they always wear it. The chief priest of the Jews is, by way of eminence, called the Khakan; and the priests are distinguished from the other Jews by the fize and colour of the turban, and by the long wide fleeces of their outer garments. The Khakan exercises temporal as well as spiritual authority, and his decisions are generally more respected than those of the bishop are by the Christians, but his civil jurisdiction is very limited.

The rate of literature at Aleppo is much degenerated from that of ancient times, when it was more respectable. There are indeed public day-schools adjoining to some of the principal mosques, but their colleges for students in advanced life are few in number, and poorly encouraged. They are more properly seminaries of pedantry and superflitious than of science, and they are chiefly frequented by the ruddics of the richer class, who dedicate themselves to the service of the mosque. Grammar and school-divinity are the subjects chiefly taught at college. The discourses, which assume an appearance of respect for learning, have no liberal notion of science. Altronomy, which was once a favourite study among the Arabs, is at present wholly neglected. Although they have books on the subject in their libraries and some instruments, yet for little is known of the science at Aleppo, that a person who is found capable of calculating eclipses has, on this account, the reputation of a most profound astronomer. Almanacks are seldom constructed at Aleppo, but are brought thither from Constantinople or Cairo. As to mathematical studies, they are little attended to by the modern Arabs; nor have natural history and the experimental part of philosophy made any progress amongst them for several centuries. History is little regarded by the literati at Aleppo. Their knowledge of distant states, and of the revolutions of empire in the western world is very partial and imperfect; and even their own history, before the appearance of their prophet, remains in great obscurity. Their geographical knowledge also lies within very narrow bounds; nor have they any good maps, except such as have been imported from Europe. Superstition has banished painting from Syria, and music, degraded by fashion to a mercenary profession, is rather tolerated than encouraged; poetry, which was formerly much cultivated among the Arabs, has very perceptibly declined and languished; so that the modern Aleppo bard never attempt any performance beyond a dirge, a ballad, or an epigram. Although the medical practitioners at Aleppo are numerous, their knowledge of medicine is superficial, perverted by prejudice, and accompanied with pedantic affectation, arrogance and obstinacy. A very competent judge affirms their general practice to consist in specious triviality. Their knowledge of anatomy
is acquired by reading, and not from digestion; and both anatomy and physiology remain precisely in the state in which they were transmitted by Galen. Their ignorance of the circulation of the blood leaves them quietly in possession of the ancient doctrines, which were held sacred before that important discovery. With a copious Materia Medica, and a large collection of compound remedies, their practice is confined to a few official preparations. The precious stones, pearls, bazaars, and leaf gold are in high esteem. The principal cordials are the confessions of Alkermes and Hyacinth. The few chemical preparations that are in use are brought from Constantinople, and the Aleppo pharmacy is chiefly confined to the distillation of simple waters, and the preparations of syrups, conserves and decorations; for spirituous waters, tinctures and elixirs are proscribed by the law of Mohammed. Some few individuals, however, are to be found, who are not only more learned, but in their practice sagacious, active and rational; and who, allowing for the disadvantages under which they labour, are entitled to merit in their profession. Surgery is less cultivated than physic.

Of the quadrupeds found in Aleppo and its vicinity, we may mention two varieties of the cow, buffaloes, two varieties of sheep, as many of the goat; wild hogs, gazelles or antelopes; two sorts of hare, the hedge-hog, the jerboa; four varieties of the camel; three varieties of the ass; various breeds of mules, horses, dogs, cats, varieties of mice, the mole, two varieties of bats, foxes and wolves; an animal called the sheep, the hyena, the lynx, and the panther. The markets of Aleppo are plentifully supplied with poultry; the cock and hen, turkeys, geese, ducks and pigeons. They have also abundance of game in the different seasons, &c. Dr. Ruffell has given an ample catalogue of the ornithology of Aleppo. The conspicuous situation of Aleppo brings thither a great number of fowls and affords the curious a singular amusement. If, from the terraces after dinner, a motion be made of throwing bread, numerous flocks of birds, which were floating in the air, at a height which rendered them invisible, will descend and fly about the place; having been accustomed to receive morsels of bread which have been scattered for amusement. For an account of the carrier pigeons of Aleppo, see Carrier Pigeon.

The river Kowick supplies several species and varieties of fish; but it does not afford a sufficient quantity for the Aleppo markets: so that the Christians, in their great lents, are supplied from the rivers Orontes and Eurphates, from the lake of Antioch, and also from another lake near Marea. Amongst the reptiles, we might enumerate the frogs, which abound on the banks of the Kowick, and from the croaking of which it is said to have derived its name. These are of a large size, and so delicious, that some European epicures have declared it was almost worth while to make a journey to Syria, for the sole purpose of regaling on them. The Kowick also furnishes a particular kind of crab, (cancer fluviatilis) which is much esteemed. This river likewise affords tortoises in abundance. The silk-worm is a most material object to Syria, being the chief source of its commerce with Europe. The bee is also of great importance, on account of the consumption of honey and wax. Among the noxious animals, the scorpion is the principal. The scorpions, snakes and serpents, are found in Aleppo and its vicinity. Few housetops are exempt from bugs, fleas, and muletoes. The common fly and horse fly are troublesome; but of the insect tribes, the locust is the most dreadful in its depredation: this fets all the defensive arts of man at defiance; and def-

flies, in a few days, the beautiful verdure of extensive tracts of cultivated country. Dr. Ruffell has given a catalogue of the reptiles, serpents, insects, and worms that are found in this country, and also a catalogue of Aleppo plants, with ample marks.

The epidemic diseases most prevalent in Aleppo are continual fevers, intermittent and remittent fevers, regular and anomalous, erumpent fevers, commonly attended with diarrhea; the dysentery, quinvix, pleurisy, pernicious, rheumatism and ophthalmia. The spotted and chronic diseases are, with few exceptions, nearly the same as in Britain. Those which are most common at Aleppo, are pulmonary complaints, spitting of blood, and consumption; obstructions of the abdominal viscera, cachexy, jaundice, dropsy, inguinal ruptures, the hemorrhoids and worms. The typhus is common, and various other cutaneous eruptions; but the true or confirmed leprous is now become obsolete in Syria. The vesicular itch is also very common in this country. The Europeans from after their arrival at Aleppo are subject to a fever, which has been distinguished by the name of Pena, or gout. The disease attacks but once; and the English are rather more liable to it than the Provencals and Italians. The natives of Aleppo and European strangers, after some residence here, are subject to a singular kind of eruption; which, from the supposed time of its duration, is denominated the bout of a year, or the ring-worm or pimple of Aleppo; but by the Europeans and Turks, it is called d'Allep, the Aleppo evil, and the Aleppo ulcer. No part of the body or limbs is exempt from this eruption, but it most commonly fixes on the face and leaves a scar, with which almost all the inhabitants are disfigured. Vonkey suspects that it proceeds from the quality of the water. Dr. Ruffell has particularly described it; and he observes, that the mercurial plaster was the most efficacious remedy. The most calamitous and destructive diseases to which Aleppo and its vicinity have been subject is the Plague. The means which are practiced by the Europeans for their preservation, consist either in a retreat from the city, or in being themselves up in their town-houses, in such a manner as effectually to prevent all intercourse or communication, by which the infection might be received from without. Besides the common regulations adopted by the Europeans at Aleppo, and which have the function of long experience, Dr. Ruffell recommended some further precautions, which we shall here transcribe for the information of those who have no access to his comprehensive and valuable work. The first of these precautions is, in the general regimen of life, to guard against excesses of all kinds, violent passions of the mind, and immediate evacuations. 2. In respect to diet, not to live more sparingly than at other times, nor to lessen the quantity of wine; perhaps one or two glasses extraordinary might rather be beneficial; and the free use of acid liquors (such as very weak four punch) was, in the summer, found not only grateful to the palate, but salutary. 3. Never to venture abroad in the morning fasting. 4. When in the chamber of the sick, or in an apartment, or any thing suspected of infection, carefully to avoid swallowing the saliva; and, at the same time, to breathe through the double folds of a handkerchief moistened with plain vinegar, or vinegar impregnated with rue. 5. To refrain inspiration as much as possible, while employed in examining the pulse, or such other circumstances of the sick as require drawing close to the bed; and upon coming out of the chamber, to wash the mouth, face and hands with vinegar. 6. On the return home, after visiting the infected, or
passing through the Bazar, 10 undress and expose the clothes in the open air; and before dressing in fresh clothes, to wash once more with vinegar. 7. The only preparation used internally, was a large dose, twice a day, of extract of bark; drinking after it a draught of wine and water, acidulated with excir of vitriol. These precautions, observed by the Doctor himself, were attended with incalts.

Aleppo, slightly defended by the ruined walls and towers of its castle, and exposed to the approaches of assailants by the rising grounds that envelop it, is a place of no importance in time of war, though it be the key of Syria to the north; but, considered as a commercial city, it is the emporium of Armenia, and the Diarbekir; sends caravans to Bagdad and into Persia; and communicates with the Persian Gulf, and India by Baffa, with Egypt and Mecca by Damascus, and with Europe by Scandercoon or Alexandr fan and Latakia. Commerce is here principally carried on by barter. The chief commodities are raw or spun cotton, coarse linens, fabricated in the villages, silk flax, manufactured in the city, copper, coarse cloths like those of Rouen, goat's hair, brought from Natah, the gall-nuts of the Curdellans, the merchandise of India, such as shawls and muslins, and piffchio nuts of the growth of the neighbourhood. The articles supplied by Europe are the Langudoc cloths, cochineal, indigo, sugar, and some other groceries. The coffee of America, though prohibited, is introduced, and serves to mix with that of Mocha. Ruell's Natural History of Aleppo, 2 vol. 410. 1794. paflim.—Volney's Travels into Syria, &c. vol. ii. p. 159, &c. For the coins, weights, and measures of Aleppo, see Syria.

Aleppo, old, now Kinnsarsen, the ruined remains of the ancient Chalics, of which there are vestiges of the foundation of walls without a single house standing. This ancient city surrendered on capitulation to the Saracens, in the 17th year of the Hegira, A. D. 639, soon after their invasion of Syria.

Aleppo, Bashawlick of Pachalic of, one of the five pachalics of Syria, is a province of great extent, reaching eastward from the bay of Scandercoon to the banks of the Euphrates, and from 40 miles north of the city, extending about 50 miles to the south eal. But it is now not so extensive as it was in former times. Kililis, which was formerly dependent on Aleppo, is erected into a distinct province, on account of the frequent depredations of the Kurdeens, who inhabit the neighbouring mountains; and since the year 1752 an alteration has taken place with respect to Bylan, which, together with Caramoat, Scandercoon, Byas, and the adjacent mountains, has been put under the government of a native of Bylan, who for that purpose was created a bashaw of two tails. At present the pachalic on the north is bounded by the village Baillik, situated in the road to Aintab, eastward, by the Defert, Bab at the distance of ten hours east-north-east, and Hagiial, about the same distance to the south-south-east, being among the last inhabited villages: on the south it is bounded by the Great Defert, between the flats of which and the west, or west north-west, are situated the most fertile and populous parts of the forest. Sirmen is the last town southward; and Antioch, with its dependencies, may be reckoned the western boundary, which, till a late period, reached to the sea: Scandercoon and Byas being then the two frontier maritime towns. About one half of the villages which stood formerly on the books of the province, are said to be totally deserted. Many of the inhabitants of this mountainous tract acknowledge scarcely any authority but that of their own chieftains; and the champaign, in many places, is either desart, or only occupied transiently by the wander-

ing tribes of Turkmans, Beqdeles, and Rufians, from the north, or by the Bidouweens and Chingans; who, though they pay an annual tribute, can hardly, in other respects, be reckoned subjects of the province. The oppression of the agas, the destructive marches of the grandees through the province, and the roving of the ruffian troops of Levants out of pay, oblige the peasant tenants to remove; so that vall tracts of the beautiful plains in the Bashawlick, are shamefully overrun with thistles, whilst the mountainous parts, better secured from oppression, are finely cultivated, full of people, and present on every side thriving hamlets.

Such is the account given of this pachalic by Dr. Ruell. Volney describes it, as extending from the Euphrates to the Mediterranean, between two lines, one drawn from Scandercoon to Beer, along the mountains, the other from Beer to the sea by Mare and the bridge of Shogar, and as containing two plains, that of Antioch to the west, and that of Aleppo to the east: the north and sea coast being occupied by considerably high mountains, known to the ancients by the names of Aranous and Rhous. The soil of this pachalic is generally fat and loamy: the greatest part of the lands lies waste, and the traces of cultivation are scarcely discernible in the environs of the towns and villages.

Of the European merchants, who have resided at Aleppo 20 years, have witnessed the depopulation of the greater part of the environs of the city. The traveller sees nothing in this and other pachalics of Syria, but houfes in ruins, cits perished uselefs, and fields abandoned. Those who cultivated them are fled into the towns where the population is absorbed, and where the individual conceals himself among the crowd from the rapacious hand of despo\i\-lin. Its principal produce consists of wheat, barley, and cotton, which are found in the flat country: in the mountains they cultivate the vine, mulberry, olive, and fig-trees. The sides of the hills, towards the sea-coast, are appropriated to tobacco, and the territory of Aleppo to piffchios. The palmage is abandoned to the wandering Turkmen and Curds. For other particulars, see the article of Aleppo. Ruell's Hist. vol. i. p. 314. 339. Volney's Travels, vol. ii. p. 139, &c.

ALEK, a river of Siberia, which joins the Atiga at Ale-

urka.

ALEREA, Ardantes, in Ancient Geography, a city of Gaul, belonging to the Biturges Cubi, and placed by M. d'Arville between Ermodurum and Argentomagus.

ALERIA, a town of Corsica, situated on an eminence in the east side of the island, near the mouth of the river Ro-

tanus, according to Ptolemys. Herodotus (ib. c. 167. p. 78.) mentions it under the name of Alalia, and says it was founded by the Phoenicians. Diodorus Siculus (ib. v. c. 12.

Vol. 1. p. 345.) calls it Kalares, Calaris, and says that it was built by the Phoenicians. Sylla established a colony in it, and, on this account, has been represented as its founder. It is now in ruins, and altogether abandoned on account of its unhealthy situation, though in former times it has been a con-

iderable city, and the site of a bishopric.

ALERION, in Heraldry. See ALLERION.

ALES, Alexander, in Biography, a divine of Augs-

burg, was born at Edinburgh, April 23d, 1500, and having made a considerable progress in the school of divinity, engaged in the controversy of the day against Luther. He also took a part in the dispute with Patrick Hamilton, and endeavoured to pro\efy him to the catholic religion; but in the progress of the conference, he himself began to entertain doubts, which were increased by the constancy of this Scots martyr at the stake. The persecution he suffered drove him into Germany, where he was at length converted to the protest-
ant faith. Encouraged by the national change of religion, which took place on the marriage of Henry VIII. with Anna Bulken, he removed to London in 1535; and here he was highly esteemed by Cranmer, Latimer, and Thomas Cromwell. When these favourites lost their interest at court, Ales retired to Germany, and was appointed professor of divinity by the elector of Brandenburg, at Frankfort upon the Oder, in 1539. Upon some dispute he withdrew to Leipzig, where he was chosen professor of divinity, and where he died in March 1577. He was much esteemed by Melchior, and was extolled by Camerarius as a very great divine, a subtle disputant, and a man of dintionished worth and learning. He wrote Commentaries on the Gospel of St. John, and the Epistles to Timothy; an Exposition of the Psalms; a Justification against Osander; on the Trinity, and an Answer to the thirty-two Articles of the Louvain Divines. Gen. Diit.

ALESA, ALEFSA, or ALESAH, in Ancient Geography, a very ancient city of Sicily, built according to Diodorus Siculus (lib. xiv. c. 15. tom. i. p. 651.), by Archonides of Herbita, about the 14th year of the 94th Olympiad, or 503 years before Christ. It flood, he says, upon an eminence, about eight frides from the sea; near place, as Ptolemy conjectures, where the city of Carmon now stands, on the river Aulus, or Trami di Calonia. The inhabitants were called Alesini and Helosini, and, as Diodorus and Cicero inform us, were exempted by the Romans from taxes. Near Alesa was a fountain, which, as Solinus pretends, used to bubble up at the sound of a flute, so that it could not be kept within the bason.

ALESBURY, in Geography. See AYLESBURY.

ALESENI, in Ancient Geography, a people of Aria, whom Strabo places in Babylonia towards the Persian gulf.

ALESHAM, or AYLESHAM, in Geography, a town of England, in Norfolk, near the river Thurn; 12 miles north from Norwich, and 121 north-north-east from London.

ALESIA, or, as it is sometimes written, ALEXIA, in Ancient Geography, a confederate town of Celtic Gaul, belonging to the Mandubii, situated, according to Cesar, (Bell. Gall. lib. vii. c. 68.) on a high hill, washed on two fides by two rivers, and of such antiquity, that Diodorus Siculus (lib. v. c. 24. tom. 1. p. 340.) describes the building of it to Hercules in his war against Ceyon. It was so strongly fortified, that when Cesar besieged and took it, Velleius Paternus represents the undertaking as more the work of a god than of a man. After Cesar destroyed this city, it was rebuilt, and maintained a confederate rank under the Roman emperors. Pliny (H. N. tom. ii. p. 660.) says, that the art of filvinger the ornaments of horses was invented in this city. It is suppos'd to be the present Aloste.

The mountain on which it flood is said to be Mount Aauxois, which is 160 toises high, and the foot of it is washed by two rivers, viz. the Oze and the Ozerain.

ALESIAS, a village of Lacomia, in the road from The-rapnus to Tuyetras, where, as Panormus informs us (lib. iii. Lacon. c. xx. p. 260.), Myles, the son of Lelex, first taught the art of grinding corn by a mill; and where an heroic monument was erected to Leclademom, the son of Tuyetras.

ALESIUM, a town of Greece, in the interior of the country, at some distance south-east from Elis.

ALESONE, in Geography, a town of European Tur- key, 20 miles north-west of Larisa.

ALESONE, a town of France, in Languedoc, in the generality of Toulouse and diocese of Narbonne.

ALESSANDRIA. See ALEXANDRIA.

ALESSANO, a small town and bishop's see of Naples,
The first species may be preferred through the winter under a hot-bed frame. The roots of the second fort may be planted in pots filled with light earth, and sheltered in winter in a dry airy glass-case. In May they may be placed abroad in a sheltered situation, and often refreshed with water in warm weather. The fourth fort is sufficiently hardy to live abroad in mild winters, when planted in a warm border and dry soil. It is propagated by seeds, sown in pots, and sheltered under a hot-bed frame; the plants, when they come up in spring, should be gradually exposed to the open air; and when they are large enough, fome may be planted in pots, and others in a warm border, where they should be sheltered during the ensuing winter. The Ceylon, China, and Sweet-scented species are too tender to live through the winter in England, unless they are placed in a warm stove; and they will not produce their flowers, if the plants are not plunged into a tan-bod. The creeping roots of the Ceylon and China forts send up many heads, which should be cut off in June, and, after having been laid in the stove for a fortnight, that the wounded part may heal, they should be planted in small pots of light sandy earth, and plunged into a moderate hot-bed of tanner's bark, giving them but little water till they have put out good roots; they should then be treated like other tender succulent plants, and be never fet abroad in summer. The seventh species is easily propagated from the side heads, which it puts out after flowering.

ALETUM, Guich-Alet, in Ancient Geography, a town of the Gauls, mentioned in the Notitia Imperii, and placed by M. d'Anville upon the sea-coast, north-west of the territory of the Rhedones. It was formerly a bishop's see, which, in the 12th century, was transferred to St. Malo, about a mile from it.

ALEVAIA, in Geography, a river of Siberia, which runs into the Penziakof sea. N. lat. 62°. E. long. 157° 15'.

ALEURITES, Arctopus, Larinaeay, of Aegopum, mel, parts of the tree having anew scattered over them, in Botany, a genus of the monoea monadelphia class and order, of the natural order of

triccosae, and euphorbia of Jullius; the characters of which are, that the flowers are male and female: the calyx of the male is a perianthium, three-cleft, very short, the clefts ovate and obtuse; the corolla has five petals, oblong, spreading, obtuse, much longer than the calyx; the stamens have five filaments, somewhat curved, very short, at the bases of the petals; the stamens are numerous filaments, connate into a conic columnar receptacle, the anthers roundish. The female flowers are few, in the same corymb; the calyx, corolla, and nectary as in the male, but larger; the pistillum has a

germ coneic superior, the style none, the stigmas two, very short; the pericarpium a large, globose, two-seeded berry; the seeds are two, globose, coated with a double bark. There is one species, viz. A. teloba, which is a tree of the islands of the South Sea.

ALEUROMANCY, Aleuromantia, derived from A.I. lume, wool, and subus, divination, in Antiquity, is the name with what was otherwise called Alphiotomantia and Christomantia, and means an ancient kind of divination by means of meal or flour.

ALEURSKA, in Geography, a town of Siberia, at the confluence of the Agila and Aler, 64 miles north-east of Nertchinsk.

ALEUTIAN, or Aleutinsky Islands, a group or chain of islands, on the north-east of Kamtchatka, and near the continent of America, belonging to Asiatic Russia. These islands were partly discovered by Behring in 1741, and the rest at several periods since his time. The most considerable of them amount to 40 in number, and they may be justly considered as a branch of the Kamtchadal mountains continued in the sea. Some have erroneously included Behring's-land and the Copper-Island in this group; but they are usually distinguished from them. South-east of the Copper-Island, within 150 or 200 versts between the 55th and 57th degrees of north latitude, lie three small islands, known by the names of Artab, Shemya, and Smitshet; and these, with a few others, were denominated by the Russians Aleutskie Otworo. because a bold rock, in the channel of these last, is called abot. In the sequel this name was extended to the whole chain; though a part of it, namely, as far as the island Yamblik, is named the Andreanofski, and the rest, lying further towards America, the Fox-Islands. The Russian charts divide the long Archipelago, known under the name of the Aleutian and Fox-islands, into several Archipelagoes under different names. On these Aleutian islands, and on upwards of 200 leagues of coast, which extend beyond the polar circle, the indefatigable Russians have formed those numerous settlements or factories that support the fur-trade, from which the empire of Russia derives such great advantages in its commercial concerns, and exchanges with the empire of China. This Archipelago, known, in the most extensive sense, by the collective name of the Alitern-islands, forms with the north-west coast of America and the north-east coast of Asia a large basin of about 1,200 leagues in circuit, which communicates towards the south with the great Boreal ocean, by as many straits as the islands form channels between them; and towards the north, under the 66th parallel, with the Arctic Frozen Ocean, by Behring's strait alone. The survey of these islands, more anciently discovered by the Russians, and of the adjacent parts of the two continents, was made by Captain Cook in his third voyage in 1778. If the Russians, then, can deferently claim the priority of the discovery, no one can withhold from the adventurous and persevering Captain Cook the glory and the merit of having fixed the distance of the two continents, and their respective extent, to the east for Asia, and to the west for America; and, by his researches and observations, of having opened a career to the navigators of the European nations, who should be devisors of availing themselves of the benefits which the discovery of these coasts presents to the speculations and enterprizes of commerce. We shall here add, that in advancing towards the north-west, Cook made Behring's Mount St. Elias towards the latitude of 60° 30'. He anchored in a large bay, which he named Prince William's found; and thence steering again to the south-west, he discovered and ascended a river, on which, after his death, the gratitude of his nation imposed the name of Cook's

River.
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RIVER. He then crossed the east shore of the peninsula of Alaska, and touched at the island of Oonalashka, which is separated from the south-west point of the peninsula only by the island of Okhotsk: these two islands are the nearest to the continent, and the most eastern of that Archipelago, or long chain of islands of various sizes, which extends from east to west, on a line bending towards the south, to within 350 leagues of the main land, if we consider Behring's island as the extremity of the chain. Capt. Cook extended his course into the north of Behring's bath, and made alternately the coasts of America and Asia; in the former he perceived the outline of a large bay, which he called Bristol Bay; and standing toward the middle of the bay, he saw the Matsviflin island of the Russians, which he named Gore's Island, and farther to the northward he distinguished the islands called Clerke's Islands. To the east-north-east of these, on the continent of America, he discovered Norton found; he then passed Behring's Strait, and advanced into the Arctic Frozen Ocean, as far as the parallel of 70° 44'. A plain of ice obstructed his progress nearer towards the pole. Here he might stay with the poet Regnard, when he reached the northern rocks of Lapland:

"Hic tandem rectimus nobis uti defuit orbis."

From comparing Cook's progress northwards with that of Captain Flippis it appears, that the ocean is navigable much further towards the north, between Europe and America, than between America and Asia; for Captain Flippis, in his "Voyage to the North Pole," reached very near the 8th parallel, whereas Captain Cook could not penetrate beyond the latitude of 71° 10' 6. See Marchand's Voyage round the World in 1790, 1791, and 1792, by Fleuriot. Vol. i. Introduction annin. A Russofian expedition for making discoveries in the north-eastern sea was proposed by Catherine II. in 1784, and the conduct of it entrusted with Capt. Billings, an Englishman, Capt. Behring, the grandson of the Behring already mentioned, and some others. After wintering at Kamtschatka, these navigators explored, in the summer of 1790, the whole chain of the Aleutian islands, which seem to be of volcanic origin; and they proceeded to explore the large eastern islands explored by Capt. Cook, Oonalashka and Kajdak, the bay of Cape St. Elias, &c., and returned to winter at Kamtschatka. In the summer of 1791 they renewed their search for a northern passage through the Frozen Ocean, and pursued their route from Gore's and Clerke's islands to the continent of America. From the account of their expedition, published at Gottingen by Blumenbach, we learn, that a principal ornament of the ladies of the Aleutian islands consists of a pair of the long talks of a wild bear, cut down to a smaller size, which are stuck into two holes, one on each side of the under lip, from which they project, and give the wearer an appearance similar to that of the Walrus; and this is considered as a beauty almost irresistible. In these islands, when they were first discovered, more than 60 families were found, whose language had no relation either to that of Kamtschatka, or to any of the oriental languages of Asia; it is a dialect of the language spoken in the other islands adjacent to America, which seems to indicate that they have been peopled by the Americans, and not by the Aborigines. They have no wood in these islands besides that which is floated to them by the sea, and this wood seems to come from the south; for the camphor-tree of Japan has been found on the coasts of these islands. The inhabitants of these islands are, in proportion to their dimensions, tolerably numerous, and they are at present tributary to the Russian empire. See Fox-islands.

ALEXANDER THE GREAT, in Biography and Ancient History, was the son of Philip, King of Macedon, by Olympias, daughter of Neoptolemus, who was son of Alectes, king of Epirus. He was born at Peiraeus, the capital of Macedonia, in the first year of the 106th Olympiad, B.C. 356. His natural disposition, which is said to have been excellent, was perhaps corrupted by the mercenary ambition of his first preceptor, Lycurgus, the Acrarian; and neither the counsel and example of Leonidas, his mother's relation, nor the instructions of Aristeas, were sufficient to counteract its pernicious effects. It was, however, a singular advantage to Alexander that he was placed under the tuition of this great philosopher. Soon after his birth Philip wrote to Aristeas, informing him, that he designed to place this son that was just born under his instruction. "I return thanks to the Gods," says he, "not so much for having given him to me, as for his having been given during the life of Aristeas; and I may justly promise myself, that you will make him a faithful, worthy of us both, and a king of Macedonia." Accordingly, at the proper season, he invited his attention to him by the offer of a considerable stipend, and he afterwards recompensed it by rebuilding Stagira, the native place of Aristeas, which he had destroyed; reinhabiting the inhabitants, who had fled from it, or who had been made slaves; and affording them a fine park in its vicinity for their ladies and assemblies. The pupil seems to have conceived an early and affectionate attachment to his master, whom he thought himself bound to love as much as if he had been his father; and to this purpose he declared, "That he was indebted to the one for living, and to the other for living well." His progress in every kind of science corresponded to the natural talents which he possessed, and to the distinguished abilities of his tutor. He devoted himself with singular affability to the study of metaphysics, mathematics, and morals; he was no less solicitous to be a matter of rhetoric, both in the theory and practice of it; and to his soliloquy in this respect we owe Aristeas's treatise on rhetoric, which, with a jealousy altogether unbecoming a great character, he required the author not to communicate to any but himself. His taste for classical literature is likewise manifest in the very ardent esteem which he professed for Homer, whose poems he denounced, as Pliny (H.N. lib. vii. c. 29, tom. i. p. 341.) informs us, "the most precious production of the human mind." He particularly admired the Iliad, which might probably contribute to give his mind a decided direction to military glory. The passage, as we are told, which pleased him most, was that (II. iii. v. 172.) which represents Agamemnon as "a good king and a brave warrior." He had also a taste for the arts in general; he knew their importance and utility; and music, painting, sculpture, and architecture flourished in his reign, because they found in him a competent judge, and, as some say, a munificent protector. In his exercises he distinguished the useful from the fanciful; in his diversions he declined whatever was unmannerly; and in his studies he despised whatever was trivial or pedantic. In early life he manifested a genius and disposition formed for great and splendid actions. Emulation and ambition were the predominant passions both of his youthful and riper years. When he conversed with the Persian ambassadors at his father's court, at the age of no more than seven years, the subjects of his inquiry were, not the palaces and retinue of their king, but the character and manners of their forefathers, the number and discipline of his army, the road that led into Upper Asia, and "the number of days' march from Macedonia to Susa." When he was requested to enter his name among the Olympic competitors, he replied, "So I would, if I were to have kings for antagonists." On occasion of his taming the famous horse Bucephalus, which none
of his father's grazon would venture to mount, Philip was no. tvoted, that he had to him, "My son, seek a kingdom more worthy of thee, for Macedonia is below thy merit." Besides the qualities which we have recited, the youth of Alexander was distinguished by temperance, chaldty, and self-command. His untail respect for his mother, whom Philip divorced, produced a disagreement between him and his father; and it was increased by a suspicion, which they entertained, that he would be disinherited, and one of Philip's children, by another wife, preferred to him. However, before this period, when he was 16 years of age, he was appointed regent of Macedonia during his father's absence; and his conduct manifested such prudence and bravery, that he was afterwards employed in several military enterprises, in which he behaved with great honour to himself, and singular satisfaction to Philip, whose life he had preferred by his refolute and fearless interposition. In the battle of Chaeronea, at the age of 18, he signalized himself by his valor, and greatly contributed to the victory. Before Philip undertook his projected expedition into Asia, he recalled his son from Epirus, with whom he and his mother had retired, and was apparently reconciled to him; but when his father was assassinated by Pausanias, whom he had grievously offended, Alexander and his mother were suspected of being privy to the conspiracy. The suspicion, however, seems to have been groundless; and the first act of his reign was the just punishment of the murderers. In the 20th year of his age, B. C. 336, he succeeded to the throne of Macedon; and commenced his military career by marching into Thessaly to overawe the Greeks, who were disposed to emancipate themselves from the Macedonian yoke, and by causing Attalus, who encouraged their revolt, to be put to death. Having succeeded in this enterprise, he marched into Thrace, defeated the Triballi, who inhabited the modern Bulgaria, and drove them beyond the Danube; he also made the Getæ to fly at his approach; subdued several barbarous nations, and established a treaty of peace, in which the Cætes, a fierce and high-spirited people, and others, were comprehended. During his absence in these expeditions, the cities of Greece, infuriated by the eloquence and influence of Demosthenes, formed a powerful alliance against him. The report of his death had induced the Thebans to revolt; and, having murdered two officers of the Macedonian garrison, they were preparing to besiege the citadel. Alexander, receiving intelligence of this event, hastened to Greece, B. C. 335, passed the Straits of Thermopylae, and entered Bœotia before the Thebans were undeceived as to his death. To those who accompanied him he spoke in the following manner: "Demosthenes, in his orations, called me a child when I was in Illyria and among the Triballi; he called me a young man when I was in Thessaly; and I must now shew him, before the walls of Athens, that I am a man grown." The city of Thbes, which was bravely defended by the inhabitants, animated by a love of liberty, was at length taken by storm, with a dreadful slaughter; the buildings were razed, the house of Pindar, the poet, excepted from a respect to its owner; the inhabitants were sold for slaves, and the lands distributed among the soldiers; this conduct struck the Greek states with terror. Athens sent a deputation to Alexander, imploring his clemency; but he demanded the surrender of ten orators, whom he supposed to have been the chief instruments in forming the league which Philip his father had defeated at Chaeronea. On this occasion Demosthenes recited to the people the fable of the Wolves and the Dogs; in which it is supposed, "that the wolves told the sheep, that if they desired to be at peace with them, they must deliver up to them the dogs who were their guard." Alexander having relented, by the interference of Demades, whom he had honoured with his friendship, waved the enforcement of his demand. Having re-established the tranquility of Greece he went to Corinth, where his office of generalissimo was recognized and settled. At Aegæ he held a grand council of state and war, in order to deliberate upon his expedition into Asia. Antipater and Parmenio recommended delay, but Alexander had formed his purpose; and having offered sacrifices, and entertained his friends with feasts, and distributed among them the crown-lords, Perdiccas asked him what he reserved for himself? "Hope," replied Alexander. "The fame hope ought therefore to satisfy us," was the rejoinder of Perdiccas. Accordingly he assembled his army, and prepared for his march into Asia. When one of his attendants asked him why he succeeded so well in quelling the dangerous tumults in Asia, he answered, "It was by delaying nothing." In the 22d year of his age, B. C. 334, Alexander crossed the Hellespont into Asia, with an army of about 50,000 foot, and 4 or 5000 horse. Parmenio, who commanded the infantry, passed over with the greatest part of the army from Selœs to Abydos; and Alexander crossed first the Strymon, afterwards the Hebrus, and after 20 days march arrived at Selœs. Having prepared for his expedition by a variety of superfluous ceremonies, to which he was attached, he proceeded to Ilium, where he sacrificed to the heroes buried in the neighbourhood, and particularly to Achilles, to Minerva, and to the ghost of Priam. In his march he preferred Lamphus, which he had determined to destroy on account of its adherence to the Persians; and this he did in consequence of the interposition of Anaximenes. "I swear solemnly," says Alexander to Anaximenes, who met him on the road, and the object of whose interview he suspected, "that I will not do what you desire me." "My request, then," said the old man, smiling, "is, that you would burn Lamphus." The Persians collected a large force to meet him on the banks of the river Granicus, May 22, B. C. 334; but, after an obstinate resistance, they were routed with great slaughter. The consequence of this victory was the surrender of Sardis, the chief town of Lydia, and the possession of the whole country as far as the river Hermus.

Alexander proceeded to Ephesus, and restored the democracy; and by an edict he established the popular government in all the Greek cities. At Miletus, which he besieged and took, he dispersed his fleet, and advanced to the siege of Halicarnassus, which was abandoned by the Persians, and then to Tralles, which he took and levelled with the ground. Having demolished Halicarnassus, he appointed Adiæ, who claimed the title of queen of Caria, and who delivered up to him Alinda, governor-general of all Caria; and this conduct induced many of the princes of the Lœger to revolt from the Persians, and to put themselves under his protection. Alexander ingratiated himself with the army, by permitting the soldiers who were married to spend the winter with their wives in Macedonia; a practice conformable to the law of Mœsæ, (Deut. xxiv. 5,) and which Aëtobote probably learnt of some Jew, and recommended to his pupil. While the king was busily preparing for the next campaign, an attempt was made upon his life by the corruption and treachery of an officer of his army; but it was discovered and prevented from taking effect.

The next campaign was opened early in the spring; and Alexander, taking possession in his march of the cities of Lydia and Pamphylia, proceeded to Phrygia; and at Gordium, the capital, he was deferent of seeing the famous chariot to which the Gordian knot was tied. The oracle had foretold, according to an ancient tradition of the country, that the man
man who could unite it should possess the empire of Asia; Alexander, persuaded that this prediction related to himself, after many fruitless trials, exclaimed, "It is not matter which way it be united," and cut it with his sword. Having subdued Paphlagonia and Cappadocia, he advanced by easy marches into Cilicia, and arrived in the country called Cyrus's Camp. Through a narrow strait, called the Pas of Cilicia, he marched with his army to Tarus, where Parmenio arrived just in time to prevent its being set fire to by the Persians. Alexander, heated and fatigued by this rapid march, plunged into the river Cydnus, which ran through this city, and was instantly seized with a shivering, which his attendants thought would prove fatal to him. His danger alarmed the whole army, and they expressed their apprehensions with lamentation and tears. In these circumstances, and whilst the speedy arrival of Darius was expected, Alexander confided his friends and physicians, and intimated to them that the condition of his affairs would not admit either of slow remedies or timid physicians. "A speedy death," says he, "is more eligible than a slow cure." Philip, an Alexandrian, one of his physicians, who tenderly loved him, and had attended him from his youth, offered to give him a dose, which would be speedy in its effects, and defined three days to prepare it. In the mean while Alexander received a letter from Parmenio, who had been left in Cappadocia; the purport of which was to bid him beware of Philip, because Darius had bribed him by the promise of a thousand talents, and his sister in marriage. But his confidence in a physician, whose fidelity he had experienced from his infancy, prevailed over his fears, and removed all his doubts. The contents of the letter he did not divulge. When Philip came to administer his medicine, Alexander took it from under his bolster, and gave it to Philip to read; at the same time, fixing his eyes on the physician, he swallowed the draught without hesitation, or without discovering the least suspicion. The effects of the medicine were very violent, but the skill of the physician prevailed, and his fidelity was proved. Alexander recovered, and in three days presented himself to the joyful gratulations of the army.

During this interval Darius was on his march, and Alexander advanced to meet him near Ilissus, in the month of October, B.C. 333. The army of Darius consisted of 600,000 men; but by insatiable counsels, and a vain confidence in the number of his forces, he had quitted an open and level country, and prepared to engage in a close and mountainous situation, where his multitude could only embarrass him in action. Victory was for some time obstinately disputed; Alexander received a wound in his thigh; but at length the Persian emperor fled, and his immense army was thrown into confusion. A dreadful carnage succeeded, and the tent of Darius, with his mother, wife, and daughters, came into the possession of the conqueror. When Alexander had performed the offices of duty and compassion to the dead and wounded, he entered the tent where the queens were lodged, accompanied only by his favourite Hephaestion. The queen, mistaking Hephaestion for the king, paid her respects to him as such; but as soon as Sygigamis, the mother of Darius, had discovered the mistake, she fell prostrate at the feet of Alexander, and begged his pardon. The king raised her from the ground, and said to her, "Dear mother, you are not mistaken; he also is an Alexander." Alexander, after this respectful visit, declined exposing himself to the danger of human frailty, and solemnly resolved never to see the queen of Darius any more. At this time, the fourth year of his reign, Alexander was young, victorious, and free, or unengaged in marriage, as has been observed of Scipio on a like occasion—"Et juvenis, et cælestis, et victor." After this victory, Alexander pursued his march to Syria, Parmenio went to Damascus, and posed himself of the treasures of Darius. The king proposed to visit Tyre, that he might have an opportunity of sacrificing to the Tyrian Hercules; but the Tyrians resolved not to admit a Macedonian within their gates. Alexander was incensed, and determined to besiege the city; and this siege, one of the most famous which history records, lasted for seven months; at length the place was stormed and utterly destroyed. The king, on this occasion, incurred deserved reproach by his cruelty towards a people, who had only offended by bravely defending their country. Thousands were put to the sword, two thousand were crucified, and the rest sold for slaves. After having depopulated the city, he colonized it anew, and loaded of being the founder of a city which he had ruined. This event took place, August 20th, B.C. 332.

From Tyre Alexander proceeded to Jerusalem, with the intention of punishing the Jews for affording relief to the Tyrians during the siege; but on his approach he met Jaddua, the high priest, in his pontifical habit, accompanied by the priests in their sacred vestments, and the people clothed in white. When the procession drew near, Alexander bowed before the priest, and paid him religious adoration; allying to Parmenio as the reason of this conduct, that the figure of a person in such habit had appeared to him at Dium, in Macedonia, and afforded him of the divine guidance, and of ultimate success in his expedition. After this interview, Alexander accompanied Jaddua to Jerusalem, sacrificed in the temple, and conferred great favours on the Jewish nation. Such is the account given by Josephus, but the whole is rejected as fabulous by many judicious writers. Considering, however, the superstitious temper of Alexander, and his friendly conduct to the Jews, it is not altogether improbable. From Jerusalem Alexander proceeded to Gaza, beleaguered it, and took it by storm: from Gaza he marched to Ptolemais, left a garrison in it, and sailed up the Nile. He afterwards marched through the deserts to Heliopolis, and crossing the river, he arrived at Memphis, where he offered pompeous sacrifices not only to the Grecian gods, but to the Egyptian Apis. From Memphis he sailed down the river to the sea, fixed on a spot in the midst of the Lynian deserts. The senior priest of this temple flattered him with the title of the son of Jupiter, which Alexander joyfully accepted; and he was farther assured that he should be the monarch of the world. From this journey, which had proved so successful, he returned as from a triumph; and from this time, in all his letters and decrees, used the following style: "Alexander, king, son of Jupiter Ammon."

During his abode at Memphis, he settled the affairs of Egypt; and in the spring marched towards the east against Darius. In his way to Tyre, which was the place appointed for the general rendezvous of his forces, he heard that Andromachus, whom he had appointed governor of Syria and Palestine, had been massacred at Samaria; and, in order to avenge this audacious act, he put those that were concerned in it to death, banished the rest from Samaria, and placed his younger brother on the throne, and divided part of their territories among the Jews.

From Tyre he directed his march to Thapsacus, and having crossed the Euphrates, he advanced towards new conquests. On his march he was informed of the death of
Statira, the captive queen of Darius; and this event de-

Babylon, but he was pursued, had laid waste the country, in order to deprive him of provisions and forage. This Bessus was a principal agent in procuring the death of Darius, and he had assumed the imperial purple, under the title of Artaxerxes. Alexander having found an opening that led into Media, directed a city to be built there, which he called Alexandria; and he also founded several other towns in its vicinity. From hence he penetrated into Bactria, and took Armon and Bactra, the two strongest cities of the country; he then passed the river Oxus in pursuit of Bessus, who, although defeated by 7 or 8,000 Bactrians, had withdrawn with a few adherents over this river to Nautaeus, a city of Sogdiana. When Alexander arrived at a small city inhabited by the Brachides, he was guilty of an act of savage cruelty, which fixed an indelible stain on his memory. The fact, though omitted by Arrian, is related by Curtius (lib. vii. c. 5. tom. ii. p. 520. Ed. Smakenb.) and referred to by Strabo (lib. xiv. tom. ii. p. 787.) Here Bessus, depo伊斯 of all the emblems of royalty, and stripped even of his garments, was brought in chains to Alexander; who, having ordered his nose and ears to be cut off, delivered him up to Oxatres, the brother of Darius, by whom he was sent to Ecbatana, where he suffered a cruel death; some say that he was crucified. Plutarch relates, that being fastened by his limbs to trees which were bent together, he was torn asunder by their elastic force, when they were allowed to return to their natural position.

Alexander pursued his march to Maracanda, the capital of Sogdiana, known by the modern name of Samarcand, and by long and dangerous stages advanced to the river Iaxartes, erroneously called by Arrian, Curtius, and others, Tanais. On the side of this river he was surpliced by the barbarians, who, rushing suddenly from their lurking holes in the mountains, and fighting with bows and slings, killed many of the Macedonians, and took others prisoners. The king himself was wounded in the conflict; but the barbarians were at length overpowered and defeated with great slaughter. Soon after this transaction he formed a treaty with the Abian Scytheans, who, from the time of Cyrus, had lived in freedom and independence, and who were distinguished by the equality and liberty that subsisted among them, and by their love of poverty and justice. Whili he was forming a plan for building a city on the river Iaxartes, in order to curb the nations he had already conquered, and those he intended to subdue, he was diverted from the execution of his design by the revolt of the Sogdians and Bactrians; and, directing his arms against their combined forces, he took and destroyed in a few days seven of their cities. The capture of Cyropolis, which was one of them, and which was the greatest and most populous of the whole country, was vigorously resented by the inhabitants; but it was at last taken, and razed to the very foundations. In these differentriages the enemy are said to have lost above 120,000 men; and in one of them Alexander, as well as Craterus and many of his principal officers, were wounded. He then returned to the Iaxartes, marked
marked a space of about three leagues in circumference, and
built a city, which was called Alexandria. In less than 20
days the ramparts were raised, and the houses built; and,
in order to people it, he emancipated all the prisoners he could
find, settled it in several Macedonians, who were worn out in
the service, and permitted many natives of the country, at
their own request, to inhabit it. His next conflict was with
the Sicyonians, whom he defeated with difficulty, and to
whom, as he had other objects in view, he granted a peace on
their own terms. The Samos, who were a powerful nation,
submitted to him, and, by an embassy, requetted his friend-
ship.
At this time Alexander received a reinforcement of upwards
of 16,000 men from Macedonia and Greece, and was thus
enabled to subdue all those who rebelled; and, to curb them
for the future, he built several fortresses in Magna Graecia.
He was gradually throwing off both the habit and manners of
a Macedonian prince, and assuming those of an eastern despot.
He was also surrounded by a number of sycophants, who are,
and ever will be, says one of his biographers, the bane of
princes, and the curse of nations. Thence, by indulging his
humour and soothing his passions, precipitated him into ex-
travagances of conduct, and deprived him of that equani-
mity and moderation, which were necessary for preserving the
acquisitions he had made. One faithful friend declined con-
curring in this general adulation. At a banquet which
succeeded the sacrifices performed at the anniversary festival
of Bacchus, the honour of which Alexander had transferred
to the Dioscuri, i.e. to Caistor and Pollux, some of the
attendants extolled the actions of the Macedonian prince above those of Caistor and Pollux, and even of Her-
cules. Clytus remonstrated, alleging, that "he could not
bear to hear such indignities offered to the gods, or the ex-
cult of ancient heroes undervalued, to tickle the ears of a liv-
ing prince." As to Alexander's actions, they allowed they
were great and glorious, but he maintained that they were
not supernatural; that the army had shared in them, and
that they had a right to participate in the praise belonging to
them. Alexander was indignant; and as Clytus pro-
cceeded in the same strain, and affirmed that he had preferred the
life of the king at the battle of the Græcians, stretching
out his arm and saying, "this hand, O Alexander, saved thee;" the king rushed upon him, and endeavoured to kill
him, but was prevented by the intervention of friends. At
length, however, when his friends tured, he seized a lance, or
long Macedonian pike, and laid Clytus dead on the spot. His
passion soon subsided, and, reflecting on the deed he had per-
petrated, he indulged excessive grief, refused food for three
days, neglected his apparel, and, as some say, would have
slain himself with the pike that killed Clytus. Flattered,
however, by the army, and perverted by the detestable doc-
trine of Anaxarchus of Abdera, the sophist, who taught him,
"that a sovereign prince do what he will, all his actions
are just and lawful," he soon became more composed and
triumphant, and lectures of this kind were more acceptable
to his mind, already corrupted, than the honest and moral
discourses addresed to him, with a view of settling his mind, by
Callisthenes, the disciple and relation of Aristotle.
His ser-
vile attendants renewed their adulation, attempted to per-
suade him that he was more than man, and that he was un-
just and disloyal in his subjects not to own his divinity; and
some of the most officious of them, amongst whom Anaxar-
chus was the chief, endeavoured to engage the Greeks as
well as the Asiatics to pay him adoration. Alexander was
pleased; and was highly provoked by a speech of Callis-
thenes, who attempted to awaken in his mind more sober
thoughts. His reasoning was ineffectual; and it was deter-
mined that when the king drank to any guest, he should im-
mediately rise, adore him, and having received a kiss from
the king, depart.
Six or seven circumstances that have been now recited,
produced a new conspiracy against the king; and the con-
spirators, being discovered, were floned to death by the
army. Callisthenes was apprehended, and, as some say,
carried about in chains, till he died a natural death, but
according to others, he was first racked and then crucified.
The death of Callisthenes, says Seneca (Nat. Quaet. lib.
vi. c. 25.), is an eternal reproach to Alexander, and a crime
of so horrid a nature, that no quality, however excellent,
or military exploit, however illustrious, can ever efface its
infamy. In favour of Alexander it is said, that he killed
many thousand Persians; that he dethroned and killed Da-
rus, the most powerful king of the earth; that he conquered
innumerable provinces and nations, penetrated as far as the
ocean, and extended the bounds of his empire from the most
remote part of Thrace to the extremities of the Euphrates.
In answer to these particulars, "Yes," says Seneca,
"but he murdered Callisthenes;" a crime of so heinous a
nature, that it entirely obliterates the glory of all his other
actions.
The only strong hold which the rebels still retained was
the Sogdian rock, or the rock of Oxus, into which Ox-
yartes, the Bactrian, had conveyed his wife and family. It
was defended by Arimazes, with 30,000 soldiers under his
command, and furnished with provisions for two years. It
was deemed by its situtation impregnable; and therefore,
when Alexander, before he commenced the siege, summoned
the garrison to submit, the commander insulted him, and
asked "whether Alexander, who was able to do all things,
could also fly; and whether nature, in a sudden, had given
him wings?" Alexander was highly exasperated, and eddicated
from the mountaineers in his army 300 of the most active
and dexterous, directing them to seek a path to the top of
the rock; to which the greater number of them at morn ascended by means of wedges and ropes. When Alexander
received the appointed signal, he sent a message to the
commander, summoning him to surrender, and informing
him, "that he had now a corps of winged soldiers." The
whole Macedonian camp surrounded with the shout of "vi-
tory," and the Barbarians surrounded the place at differ-
cence. Alexander's repentment was invincible, and regard-
less of the dictates of humanity, he ordered Arimazes and the
principal nobility of the country who fought shelter in his
camp to be surrounded with roods, and afterwards to be fixed
to crosses at the foot of the rock. After the reduction of
Sogdia, he marched into the country of the Parthians,
where was another fortress, called the rock of Choriames,
which was also deemed impregnable. After the siege was
begun, Choriames, the commander, was induced by Ox-
yartes to surrender it; and having been enrolled in the number of
Alexander's friends, he was entrusted with the charge of it,
and in return for this honourable treatment, supplied the
Macedonian army with provisions. On one of these occa-
sions, Roxana, the daughter of Oxyartes, who was esteemed
the most beautiful woman in Asia, after the death of the
wife of Darius, fell into the hands of the conqueror; and
such was the influence of her charms, that he publicly ep-
pointed her.
India was the next object to which Alexander directed his
attention. Accordingly he dispatched a herald to Taxiles,
and the other princes on this side the river Indus, enjoining
their submission; and Hephaestion, with part of the army,
was dispatched to join Taxiles and the rest of the Indian princes, who were come out to meet them, and to reduce the country as far as this river. This commission was easily and speedily executed. Alexander bent his march towards the river Choaspes, and reduced several places in his progress, among which Ainda was one of the most considerable. He proceeded against the Apii and Aissaeri, whom he successively defeated, notwithstanding obstinate resistance; but having invested Magaza, the capital of the latter people, he was wounded in the leg, and the army was repeatedly repulsed. At length, however, the Indians were compelled to submit; and by an act of piety, which Diodorus Siculus declare to be condemn'd, they were all put to the sword. Platarch relates, that the king for this barbarous action, Ora and Bazaer, and the rock of Aouson, to which the inhabitants of the latter place retired, were next reduced; and Alexander proceeded to the river Indus, where Hephaestion and Perdiccas had already provided a bridge of boats for the passage of the army. Having refreshed his troops in the territory of his friend and ally, Taxiles, Alexander passed the Indus, B.C. 327; and advanced forward to the Hydaspes, known in modern times by the name of the Betah or Chelum, or, according to the orthography of Major Rennell, Belut and Hyllum, where Porus with a large army lay encamped to dispute his passage. When he approached the banks of this river, he found that the people with whom he had to contend were not to be subdued so easily as the Persians, and other Asiatics. The Indians were not only a very tall and robust, but also a very hardy and well disciplined people; and their king Porus, a prince of high spirit, invincible courage, and good conduct. Alexander, however, after encountering great difficulties, on account of the inundations to which the Indian rivers are subject at the time of his march, which was Midsummer, or about the height of the rainy season, passed the Hydaspes; and having vanquished a detachment under the command of the son of Porus, who was slain in the action, he encountered Porus himself at the head of 4,000 horse, 30,000 foot, 300 chariots and 200, or as Q. Curtius says (lib. viii. 13.) 85 elephants. The dispute, though short, was very bloody. Porus behaved with singular prudence and intrepidity; but the Indians were completely routed after a great slaughter. Porus, compelled to submit, was conducted to Alexander, who received him with respect, and treated him with kindness. When he was asked "how he wished to be treated?" Porus replied, "as a king." "That for my own sake," said Alexander, "I shall do." "And therein," rejoined Porus, "is comprehended all that I can ask." Alexander gave him his liberty, restored his kingdom with additional provinces; and Porus, in return, became his true friend and constant ally. For perpetuating the remembrance of this victory two cities were built; one called Nicea, and the other Bucephala. Passing the river Acenies, he entered the territories of another Porus, and in pursuit of him crossed the Hydpositories, and having conquered the whole kingdom of this prince, he gave it to Porus his ally. In the midst of this success Alexander received advice, that the Cathei, Oxydrace, and Malli, the most warlike nations in India, were confederated against him, and had assembled a great army. He determined immediately to attack them; and though they made a vigorous defence, they were put to flight; and soon after, their city of Sangala was taken by storm and razed. He then prepared to pass the Hyphasis, having nothing in view, as Arrian says, but to seek new enemies. Here he was told that after passing this river, he must travel 11 days through deserts, and that he would then arrive at the Ganges, the largest river in India; and that farther in the country were the Ganga and Brahmi, who were collecting a great force in order to oppose his entering into their dominions. Rumours of this kind were spread through the army, and produced no inconsiderable degree of disturbance and murmurs. Unable to allay the ferment that was prevailing among the troops and to satisfy them, that they had any object in view which could warrant their being led on to new difficulties and toils, he was constrained to terminate his progress, and to prepare for his return. When his purpose was made known to the army, he was saluted with loud acclamations and received the thanks of his followers; "brave soldiers," they said, "he who was invincible had suffered himself to be overcome by their prayers." On the banks of the Hyphasis, the modern Beyah, which were the limits of his conquests, he caused to be erected 12 altars, on which sacrifices were offered. These altars, if we may believe the biographer of Apollonius Tyanaeus, were still remaining, with legal inscriptions, that when fantastic fopliht visited India 373 years after Alexander's expedition. Philol. vita Apoll. lib. ii. c. 43. ed. Olariz.

Having exhibited public shows in the Grecian manner, he added all the conquered country to the dominions of Porus, and began his retrograde march towards the river Hydrous. From thence he proceeded to the Acenies, and marched on to the Hydaspes, propelling to embark on the river Indus, and to pass by this river to the ocean. Whilst he was marching near these rivers, he observed many crocodiles, and that the country produced beans like those of Egypt; and hence he inferred, that he had discovered the source of the Nile, and prepared a fleet to sail down the Hydaspes to Egypt. Strabo. Geog. lib. xv. p. 1020. This circumstance shows, that the knowledge of the Greeks, in his age, did not extend beyond the limits of the Mediterranean. The breadth of the Panjab, as it is now called, through which Alexander passed, from Ludhana on the Setlege to Attock on the Indus, is computed to be 250 geographical miles, in a straight line; and his march, computed in the same manner, did not exceed above 200 miles. But in his advance and return, his troops were to spread over the country, and all his movements were so exactly measured and delineated by men of science, whom he kept in pay for the purpose, that he acquired a very extensive and accurate knowledge of that part of India.

Having prepared a fleet, consisting of 80 vessels of three banks of oars, and about 2000 lighter ships and transports, and having offered sacrifices to the gods, he embarked, and at the signal of the sound of a trumpet the fleet began to move. Having arrived at the confluence of the Acenies with the Hydaspes, where the three united streams roll with great rapidity into the Indus, many of his vessels were lost, he himself was in danger, and Nearchus, the commander of the fleet, not a little perplexed. When the danger was past, and the fleet and army were joined, Alexander went to shore; and began his march through a desert country, in order to reduce the Malli and Oxydrace, who were raising forces to oppose him. He surprised them, unprepared and unexpected his arrival; many of them were slain in the field, and the rest fled into the city and shut the gates. In forming their principal city, Alexander, with a romantic valour, which approached to fool-hardiness, scaled the walls, and leaped down into the city, accompanied by only three of his guards. Whilst he personally encountered a severe attack, he was wounded, and fainted among seas of blood; two of his guards, who were themselves wounded, covered him with their shields; till the soldiers from without ascended the walls, threw themselves into the city, and by an act of the
the most undaunted resolution, refused their sovereign; though, when he was carried out upon his shield to the camp, his recovery was very doubtful. As soon as he was able, he rejoined his forces and was received in the camp with great joy.

His first thoughts were now directed to the increase of his fleet; and having accomplished this object, having given order for erecting a city in the commodious situation afforded by the confluence of two great rivers, and having conferred upon Oxyartes, the father of his Roxana, the government of Paropamisus, with some additional territories, he embarked on board his fleet and continued his voyage. But as he proceeded, he was occasionally employed in reducing some Indian princes, who were either negligent in paying him the attention and respect to which he conceived himself entitled, or who actually took up arms against him. Of this number were Muzianus, the soverign of one of the richest and most populous kingdoms in India; Oxyartes, another Indian prince, who was taken prisoner, and Sambas, whose capital Sindomana opened its gates to receive him. Muzianus afterwards revolted; and Alexander directed him to be carried back into his own dominions, to be there crucified, together with all the Brahmins who were about him, and who had infligted him to this revolt. The king next failed to Patala, the modern Tatta, an island formed by two branches of the river Indus, where he ordered an haven and convenient docks to be constructed for his ships; and when he had careened his fleet, he fell down the right-hand branch of the river towards the ocean. As they approached the sea, they were exposed to great danger for want of skillful pilots; and therefore, after having gratified his vanity by entering the ocean beyond the Indus, performing religious rites in honour of Neptune, and surveying two small islands, he returned to Patala. Having surveyed the other branch of the Indus, and found a place of safety for his fleet, he gave directions to Necrathus to conduct the fleet, by the ocean, at the proper season, through the Persian gulf, up the river Tigris, to meet him and his army in Mesopotamia; and he departed with the army in order to march back by land to Babylonia. From the researches of Major Kennell we learn, that the distance of that place on the Hydaspe, where Alexander fitted out his fleet, from the ocean, cannot be less than a thousand British miles. Considering the various operations by which he was retarded, and the slow navigation of such a fleet as he conducted, it is no wonder that he was above nine months before he reached the ocean. When we attend to the various movements of his troops, the number of cities which they took, and the different states which they subdued, he may be justly said to have explored the countries through which he passed.

Alexander, having left Patala, crossed the Arabis, and marched through the country of the Ortes, whose capital he seized and converted into a new and noble city, which he committed to the government of Hephaestion. He then purified his arduous march through Gedrosia; and in the whole of his progress suffered much from sickness, excessive heats and fatigue, and also from famine and thirst; so that he brought back from India the fourth part of his army, which had consisted of 120,000 foot, and 15,000 horse. In these circumstances, trying and distressing as they were, he maintained an invincible resolution and patience, and by his example encouraged the perseverance of his troops.

Having relieved and refitted his army at the capital of Gedrosia, he prepared his march into Caramania, a very plentiful country, where his attendants were amply recompensed for the hardships and fatigues they had endured. Here he punished those governors who were charged with maladministration, some of whom were put to death; and redressed the various grievances which the people had suffered during his absence. He then continued his march through Caramania, and was joined by Neanthes, his admirals; and turning aside to Persia, he visited the tomb of Cyrus, at Pasargadae; ordered Orizes, the governor of Persia, who was charged with many atrocious crimes, to be crucified, and placed Pausias, who had fixed his life in a city of the Malls, in his room; and commanded Baryaxes, a Mede, who had usurped the title and tiara of king, to be put to death. In these marches Calanus, an Indian Brahman, who had accompanied Alexander, finding his health declining, requested to have a funeral-pike prepared; on the top of which he stretched himself at full length, and remained without voice or motion in the midst of the flames.

At Susa, to which Alexander next marched, he put to death Abulites and his son Oxathres, who were charged with enormous crimes in the administration of public affairs; and he attempted to unite the Macedonians and Persians by forming alliances between the noblest families of Persia and the principal persons of his own court; and he himself set them an example by taking two wives of the royal blood of Persia, viz. Statira, the daughter of Darius, and Parysatis, the daughter of Ochus. He also bestowed fortunes on those Persian ladies of high rank, who were married to his own principal officers. He likewise paid the debts of his army; and conferred rewards and promotions on those who had distinguished themselves in his service, without distinction of country.

Alexander, having still a curiosity to see the ocean, and to explore the maritime parts of his empire, went down from Susa upon the river Eukles; and having crossed the Persian gulf to the mouth of the Tigris, went up that river to the army, which was previously encamped, under the command of Hephaestion, on its banks, near the city of Opis. Here he issued an edict that those Macedonians, who were either unable or unwilling to make any more campaigns, might have their discharge, and return home, and that those who chose to remain with him should be duly encouraged. This edict, which was intended to please the army, produced a contrary effect, and excited a mutiny, which was quelled by extraordinary resolution and intrepidity. Whilst the soldiers surrounded the tribunal on which he was seated, all clamouring for their discharge, reproaching him with the favours which he had conferred on the Barbarians, and inflaming their passions against those who had offended them, he leaped into the midst of them, ordered his guards to seize 13 of the ringleaders, whom he pointed out, and commanded their immediate execution. This act terrified them into silence and submission; and then remounting his tribunal, he pointed out to them, in an eloquent speech, the injustice of his own conduct and the folly of theirs. He afterwards promoted the Persian nobility to the principal commands in his army; and by thus seeming to transfer his confidence to them, he humbled the Macedonians, and induced them to deliver up the authors of the sedition, and earnestly to seek reconciliation and favour; which they obtained, and which were succeeded by a solemn festival at which 9000 persons were present.

At Ecbatana, whither he next went, he offered sacrifices, and exhibited sports and games; which were followed by a royal banquet; but his joy on this occasion was unexpectedly interrupted by the sudden illness and death of Hephaestion.
From Ecbatana he marched against the Cœleans, and subdued them; and he then pursued his course towards Babylon, where he formed a variety of projects, for improving the city and extending his dominions. He proposed invading and conquering Arabia, draining the Babylonian fens, and constructing in the city a bath, capable of containing a thousand galleys. But before he could execute any of these grand schemes, he was seized with a fever, which, as some fay, was occasioned, or at least aggravated, by excess of drinking, and which in a few days terminated in his death. He died on the 21st of April, in the second year of the 114th Olympiad, B.C. 323; after he had lived 32 years and eight months, and reigned 12 years and eight months. When his principal courtiers, perceiving his death to be inevitable, asked him to whom he left the empire, he answered, "to the most worthy;" and when Perdiccas enquired at what time they should pray him divine honours, he replied, "when you are happy;" and having pronounced these words, he expired. When Alexander's corpse had been embalmed after the manner of the Egyptians and Chaldeans, Arides, his half-brother, who had been declared king, was appointed to convey it to the temple of Jupiter Ammon. Two whole years (see Appian, lib. xiii. c. 30. tom. ii. p. 688.) were employed in preparing for this magnificent funeral, which made Olympias bewail the fate of her son, who having had the ambition to rank himself among the gods, was so long deprived of burial, a privilege allowed to the mound of mortals. The funeral procession, conducted by Arides, was singularly splendid; and some of our readers may probably be amused by the following brief account of it. It was preceded by pioneers, who cleared the way; and it con- fisted first and principally of a superb chariot in which the remains of the king were conveyed. The naves and spokes of the axle-trees of this carriage were covered with gold, and their extremities, made of gold, represented the muscles of lions biting a dart. It was drawn by 64 mules, harnessed to four draught-beans or poles; and these mules were adorned with crowns of gold, and collars enriched with precious stones and golden bells. On the chariot was erected a pavement of solid gold, 12 feet wide and 18 feet long, supported by Ionic columns; and the inside was ornamented with jewels, diffused in the form of shells. The circumference was beautified with a fringe of golden net-work, to the threads of which were suspended large bells, the sound of which might be heard at a great distance. The external decorations consisted of four relieves. The first represented Alexander seated in a military chariot, with a splendid sceptre in his hand, and surrounded on one side with a troop of Macedonians in arms, and on the other with an equal number of armed Persians; and these were preceded by the king's eunuchs. In the second were seen elephants harnessed, with a band of Indians seated before, and a band of Macedonians, scated behind, and armed for battle. The third exhibited several squadrons of horse in military array. The fourth represented ships prepared for battle. The entrance of the pavilion was guarded by golden lions. The four corners were adorned with statues of gold, representing victories, with trophies of arms in their hands. Under the pavilion was placed a square throne of gold, adorned with the heads of animals, with golden circles round their necks, and to which were attached crowns, glittering with the most brilliant colours, and such as were carried about at the celebration of sacred solemnities. At the foot of the throne was placed the coffin of Alexander, formed of beaten gold, and half filled with aromatic spices and perfumes; and the coffin was covered by a pall of purple, wrought with gold.

The arms of the Monarch were disposed in the manner in which he used to wear them, between the coffin and the throne. The outside of the pavilion was covered with purple flowered with gold; and the top terminated in a large golden crown, resembling a cluster of olive branches. The rays of the sun, which darted on this diadem, as the charriot moved, caused it to emit a kind of rays resembling those of lightning. The charriot was followed by the royal guards, armed and magnificently arrayed. Among the numerous attendants and spectators, who were assembled on this occasion, Ptolemy advanced, with a numerous guard of his best troops, as far as Syrtes, to meet the procession. He prevented their depositing the corpse in the temple of Jupiter Ammon, and caused it to be conveyed, first to the city of Memphis, and thence to Alexandria. Here he reared a magnificent temple to the memory of Alexander, and rendered him all the honours which were aually paid to demi-gods and heroes by Pagan antiquity. Freminhens, in his supplement to Livy (lib. xxxii. c. 65. tom. vi. p. 910 ed. Drakenb.), relates, after Leo Africanus, who lived in the 15th century, that the tomb of Alexander was to be seen in his time, and that it was reverenced by the Mahometans, as the monument not only of an illustrious king, but of a great prophet.

As to the issue of Alexander, we may observe in general, that by Barbina, or Arsinoe, the daughter of Artabazus, and the widow of Memnon, a lady of great beauty and merit, he had a son named Hercules, who was afterwards murdered; by Roxana, the bell beloved of his wives, he had a polthious son, named Alexander, who for a time enjoyed the title of king; by Cleopatra, queen of part of India, he had a son named Alexander, who succeeded his mother in her kingdom; by Statira, the daughter of Darius, he had no children, nor by Parysatis, the daughter of Ochus.

As to the extent of the Macedonian empire, and the distribution of it after his death; see Empire.

As to his person, Alexander was of a middle size, with his neck somewhat awry, with full eyes, and a fierce majestic countenance. Either through tule or vanity he would never suffer any portraiture to be formed of him except by the greatest artists of his age; Praxiteles in sculpture, Ly-ippus in eall metal, and Apelles in painting.

As to his talents and character, they have been diversly appreciated by his biographers. From his more ancient biographers, whose memoirs are in a great measure lost, i.e. Ptolemy's writers have compiled the history of his life, namely, Diodorus Siculus, Plutarch, Arrian, Q. Curtius, and Trogus, abridged by Julian. The Baron de St. Croix, in his "Critical Inquiry into the Life of Alexander the Great by the ancient Historians," which first appeared in the memoirs of the French Academy of Inscriptions and Belles Lettres, and obtained the premium of that society in 1772, and of which Sir R. Chayton published an English translation, with notes and observations, in 1793, has appreciated the merit and veracity of these historians. Historians, says another writer, have considered him either as an enterprising and successful prince, the glory of whose great actions scarcely suffered the blemishes in his personal conduct to be seen, which is the light in which Arrian has placed him; or they make his virtues and vices alike conspicuous, which seems to have been the view of Curtius. Philosophers and moral writers have dealt more freely with him, and have therefore seldom run into high panegyrics, Plutarch only excepted; who in his orations on the fortune and virtue of Alexander, speaks as a rhetorician. The Satirist Lucian hath described him with great spirit and with consummate judgment; but he
he seems to have kept his eye too closely on the latter scenes of his life, when his fortune, not his merit, was at its greatest height. It is justly observed by Livy (ib. ix. e. 18.), that Alexander appears very different, according to the times or feasons in which we consider him. He discovers in him a kind of double Alexander: the one wise, temperate, judicious, brave, intrepid, but at the same time prudent and circumspect; the other immered in all the vanitiments of an haughty prosperity; vain, proud, arrogant, foly; softened by delights, and abandoned to intemperance and excesses; in a word, resembling Darius rather than Alexander, and having made the Macedonions degenerate into all the vices of the Persians, by the new turn of mind, and the new manners he assumed after his conquests. M. Rollin, guided by this clue, contemplates him in two different periods of his life, and corresponding aspects of his character: first, from his youth to the battle of Issus and the siege of Tyre; and secondly, from that victory to his death. In the first period, we acknowledge and admire a happy disposition, cultivated and improved by education. He had a great, noble, and generous soul, which was delighted in bestowing favours and doing service. He was also actuated by a high degree of emulation and love of glory; he was ambitious to exerceeds of body and mind, and to a sober and temperate mode of living. No prince in the world had a nobler education than Alexander; so that he was conversant in eloquence, poetry, polite learning, the whole circle of arts, and the most abstracted and sublime sciences; and in the progress of his years he was a favourite and promoter of literature and the arts, and attached to his train poets, orators, and philosophers. Under Arifotle he enjoyed singular advantages of instruction; nor was he indifensible of their value; and he rendered essential service to science by the presents which he conferred on his preceptor, for enabling him to pursue his enquiries in natural history. He also employed men of talents of every decription, and liberally rewarded them. In the early life of Alexander we perceive and admire the judgment manifested in his conversation with the Persian ambassadors; the wisdom with which he acted as regent during his father's abfence, and by which he pacified the feuds that had broken out in Macedonia; and the valour by which he distinguished himself in the battle of Choronea. The first years of his reign were, perhaps, all circumstances considered, the most glorious of his life. At 20 years of age, he appeased intestine feuds, subjebted foreign enemies, disarmed Greece, when most of its fates were combined against him; and in three years accomplished the plan which his father had projected. For effecting these purpofes, in trepitude and prudence, courage and prudence of mind, those qualities which form the character of the true hero, were indispensable. In the former part of his expedition against Darius, the fame qualities are manifest. When he was scarce 20 years old, with dangers, domestic and foreign, threatening him, with a treasury not only exhausted but encompassed with debts, with an army much inferior to that of the Persians, Alexander turns his eyes towards Babylon and Sufa, and projects the conquest of a vast empire. The swiftnes of the execution corresponded to the wisdom of the project. Having gained the affection of his officers by an unparalleled liberality, and the attachment of his feldiers by cœdence and affability, he astonifhed his enemies by bold enterprizes, terrified them by examples of severity, and won them by acts of humanity and clemency. The paffage of the Granicus, followed by a famous victory; the two celebrated fiegues of Miletus and Halicarnafus, exhibited to Asia a young conqueror, to whom no part of military fe-

ence was unknown. When he allowed to those whom he conquered, and who readily submitted, the enjoyment of their liberties and ancient laws, observers were led to believe, that the conqueror had no other view than to make nations happy, and to procure them an easy and lasting peace. The two battles of Issus and Arbela, with the siege of Tyre, proved, that Alexander possifed the qualities of a great soldier; ftrell in chufing the field of battle; prudence of mind in influing proper orders even in the heat of action; courage animated by pressing dangers; impetuous activity, tempered and guided by caution and circumspection; and an invincible firmness and constancy, neither disconcerted by unforefeen obftacles nor discouraged by difficulties. The circumjance which rages Alexander above most conquerors, and, as it were, above himself, was his conduct toward the mother, wife, and daughters of Darius; all of them princesses, whose beauty was not to be paralleled through the whole of Asia. If this conduct towards the family of Darius had been accompanied with the grant of a peace, which he appledicated on terms so humiliating to himself, and so advantageous to Alexander, the conqueror would have risen still higher in our esteem. Alexander, it is fair, had a soul capable of friendship; he endeavoured himself to his officers and feldiers, by his attention and familiarity; he grieved for them when they were sick, rejoiced in their recovery, and participated in whatever befell them.

If we follow Alexander to the second period of his history, after the battle of Issus, we shall fee the virtues and noble qualities of this prince degenerate on a sudden, and make way for the greatest vices and the most brutal paffions. Was ever enterprife more wild and extravagant than that of crossing the deferts of Libya, and interrupting the course of his victories, in order to purchase a title, that of the fon of Jupiter Ammon, which, in reality, only served to render him contemptible. The drunkennefs and debauchery to which he addicted himself, and the follies and crimes of which he was guilty in his feaons of intoxication, degrade his character, and expose it to just arrhorrence and contempt. What shall we say of his marking his footsteps with fire and blood, of his burning cities and slaughterling their inhabittants? of his burning Peripolis, murdering Clytus, putting Philotas to the torture, disgracing Parmenio, an old, Tried, faithful friend, and putting both father and fon to death, and of permitting Callisthenes, the philosopher, to die in a dungeon, or in a worfe mode? what apology can be made for his wanton cruelties? the devastation of whole countries, the slaughter of millions of inhabitants, the crucifixion of an Indian prince, and the punishment of many Brahamins, whose only crime had been that of encouraging their countrymen to defend their liberties against a lawless invader? well might the Gentoo annals call him "a most mighty robber and murderer." How justly does the author of the fifth book of Maccabees characterize him, by saying that "he butchered kings," καταστραφηκει τα δια 


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dreds of their respective countries, as Q. Curtius calls them) were as free of being recommended as an Aniolot or a Xenophon, and were preferred by this famous hero, even to his own relations and generals. He was not less liberal to fingers, harpers, and pipers; on whom he bestowed at one caroufal, above 10,000 talents, as we may naturally suppose, for chanting his bloody victories and refounding his praise.

If we examine his character as a warrior and a conqueror, and trace his military exploits to their moving spring; it is natural to direct our enquiry to the justice of the war in which he engages, without a regard to which he is not a conqueror and a hero, but an usurper and a robber. If we allow that the Persians were the invaded enemies of the Greeks, what right had Alexander over the great number of nations who did not even know the name of Greece, and had never done or designed him the least injury? The Scythian ambassador spoke justly, when he said: "What have we to do with thee? we never once set foot in thy country. Are not those who live in woods allowed to be ignorant of thee, and the place from whence thou comest? Thou boastest, that the only design of thy marching is to extirpate robbers; and thou stylist, art the greatest robber in the world!" To the same effect was the answer of the pirate, when Alexander questioned him, what right he had to infest the seas? "The fame that thou halt to infest the universe; but because I do this in a small ship, I am called a robber; and because thou art the same part with a great fleet, thou art entitled a conqueror." Upon the principle now stated, what idea ought we to form of Alexander's last conquests? Was ever ambition more extravagant, or rather more furious, than that of this prince? It is related that Alexander, when he was told by Anaxargus the philosopher, that there was an infinite number of worlds, wept in thinking, that it would be impossible for him to conquer them all, since he had not yet conquered one. Val. Max. lib. viii. c. 14. Is it wrong in Seneca, (Nat. Quell. lib. iii. in pr.) to compare these pretended heroes, who have gained renown no otherwise than by the ruin of nations, to a conflagration and a flood, which lay waste and destroy, or to wild beasts that subsist merely by blood and slaughter? Alexander, continues this writer, (De Benef. lib. i. c. 15.) an unjust robber from his youth, a cruel ravager of provinces, an infamous murderer of his friends, makes his happiness and glory to consist in rendering himself formidable to all mortals; forgetting that, not only the fiercest animals, but even the vilest, make themselves feared by their poisons. If the conquests of Alexander are examined in themselves separately from their moving spring, we shall find that they are frequently effected by a kind of valour nearly allied to a boldness that is blind, rash, and impetuous; that has no other guide besides a feeble's ardour for fable glory and a wild desire of distinguishing itself by any methods, let them be ever so unlawful. To form an accomplished general, prudence must soften and direct the too fiery temper of valour; as this latter must animate and warm the coldness and floseness of prudence. Do these characteristicks belong to Alexander? When we follow him to sieges and battles, are we not perpetually alarmed for his own safety, and that of his army? and do we not conclude, that they are every moment upon the point of being destroyed? Plutarch, in pronouncing the eulogy of Alexander, as an accomplished hero, gives a long detail of the various wounds he received; and intimates, that his courage was thus rendered more conspicuous. But it has been observed in praise of Hannibal, that he was never wounded in all his battles. It ought also to be observed, in estimating the character of Alexander, as a conqueror and warrior, what Livy has suggested (lib. ix. c. 17.), who were the enemies with whom he combated. "Had he marched," says this writer, "against the Romans, he would soon have found, that he was no longer combating against a Darius, who, encompassed with gold and purple, the vain equipage of his grandeur, and dragging after him a multitude of women and eunuchs, came as a prey rather than as an enemy; and whom Alexander conquered without much blood, and without wanting any other merit, than that of daring to despise what was really contemptible. He would have found Italy very different from India, through which he marched in a riotous manner, his army quite stupefied with wine; particularly when he should have seen the forests of Apulia, the mountains of Lucania, and the still recent footsteps of the defeat of Alexander his uncle, king of Epirus, who there lost his life." Alexander, therefore, partly owed his conquest to the weaknesses of his enemies. After all it cannot be denied, that Alexander possessed very great qualities: but they were those which were fitted to inspire admiration rather than esteem; while the worst rendered him a pest of mankind, and refembled him, as an excellent biographer observes, "to one of those baleful meteors, which dazzle as they fly, but ruin where they fall." He possessed talents, says Dr. Robertson, (Hist. Amer. vol. i. p. 20.) which, notwithstanding the violent passions that incited him, at some times, to the wildest actions and the most extravagant enterprises, fitted him not only to conquer, but to govern the world. If we throw into the scale of his errors and vices, the presumptuous idea he entertained of his merit; the high contempt he had for other men, not excepting his own father; his ardent thirst of praise and flattery; his ridiculous notion of fancying himself the son of Jupiter; of ascribing divinity to himself; of requiring a free, victorious people to pay him a servile homage, and to prostrate themselves ignominiously before him; his abandoning himself to flamefully to wine; his violent anger, which rives to brutal ferocity; the unjust and barbarous execution of his bravest and most faithful officers, and the murder of his most worthy friends in the midst of feasts and carousals: Can any one, says Livy, (lib. ix. c. 17.) believe, that all these imperfections do not fully the reputation of a conqueror? But Alexander's frantic ambition, which knew neither law nor limits; the rash intrepidity with which he braves dangers, without the least reason or necessity; the weaknesses and ignorance of the nations, totally unskilled in war, against whom he fought; do not these curvate the reasons for which he is thought to have merited the surname of Great, and the title of Hero? Rollin, in clozing the estimate of Alexander's character, observes, that we do not find that he possessed the first, the most essential and most excellent virtues of a great prince, so as to be the father, the guardian, and shepherd of his people; to govern them by good laws; to make their trade, both by sea and land, to flourish; to encourage and protect arts and sciences; to establish peace and plenty, and not suffer his subjects to be in any manner aggrieved or injured; to maintain an agreeable harmony between all orders of the state, and make them confpire, in due proportion, to the public welfare; to employ himself in doing justice to all his subjects, to hear their disputes and reconcile them; to consider himself as the father of his people, consequently as obliged to provide for all their necessities, and to procure them the several enjoyments of life. He adds, Alexander seems possessed of such qualities only as are of the second rank.
ignominious death. By these guards Alexander was advanced to the throne, A. D. 221. The Senate concurred, and immediately invested him with the various titles and power; annexed to the imperial dignity. At the same time they offered him the name of Antoninus, and the surname of Great; but these he modestly declined. Alexander was a diletant and dutiful youth, of only 17 years of age; the reins of government were in the hands of his mother and grandmother; and after the death of the latter, Mama remembered the sole regent of her son and of the empire. With her consent he married the daughter of a patrician, who afterwards became the object of her jealousy and cruelty, and was banished by her indulgence, which Alexander durst not oppose, into Africa. It has been said, indeed, by Lampridus, that the father was detected in a conspiracy, and that the repudiation of the daughter was the consequence of his crime. But Herodian represents him as innocent. Under her direction, and with the approbation of the Senate, a council of State was appointed, consisting of 16 of the wisest and most virtuous senators. At the head of this number, as praetorian prefect, was Ulpian, distinguished by his knowledge and respect for the laws of Rome; and the prudent formula of this arbitration restored order and authority to the government. The city, by their influence, was purged from the superfetation and luxury, which Helogobalas had introduced; his worthless creatures were also removed from every department of public administration; and their places were supplied with men of virtue and ability. Learning, and the love of justice, became the only recommendations for civil offices. Valour, and the love of discipline, were the only qualifications for military employments. But the most important object of Mama's solicitude was that of forming the character of the young emperor. His excellent understanding encouraged cultivation, and led him daily to value the advantages of virtue, the pleasures of knowledge, and the necessity of labour. The natural mildness and moderation of his temper prevented him from the allurements of passion and the allurements of vice. His unalterable affection for his mother, and his respect for the wife, Ulpian, guarded his inexperienced youth from the poison of flattery. As Mama had probably embraced the profession of Christianity, it is no wonder that Alexander was very indulgent to the Christians, and would not suffer them to be persecuted on account of their religious tenets. He himself seems to have been well acquainted with the Christian morals; for he frequently repeated the golden rule of the gospel, “Do as you would be done by,” cau sed it to be inscribed over the gates of his palace, and on several public edifices; and observed it in his own conduct, with the greatest exactness.

The simple journal of his ordinary occupations,” says a popular historian, “exhibits a pleasing picture of an accomplished emperor, and with some allowance for the difference of manners, might well deserve the imitation of modern princes. Alexander rose early; the first moments of the day were consecrated to private devotion, and his domestic chapel was filled with the images of those heroes, who, by improving or reforming human life, had deserved the grateful reverence of posterity. But, as he deemed the service of mankind the most acceptable worship of the gods, the greatest part of his morning hours was employed in his council, where he discussed public affairs, and determined private causes, with a patience and discretion above his years. The dryness of business was relieved by the charms of literature; and a portion of time was always set apart for his favourite studies of poetry, history, and philosophy. The works of Virgil and Horace, the republics of Plato and Cicero,
formed his taste, enlarged his understanding; and gave him the noblest ideas of man and government. The exercises of the body succeeded to those of the mind; and Alexander, who was tall, active, and robust, surpassed most of his equals in the gymnastic arts. Refreshed by the use of the bath and a light dinner, he resumed, with new vigour, the business of the day; and, till the hour of supper, the principal meal of the Romans, he was attended by his secretaries, with whom he read and answered the multitude of letters, memorials, and petitions, that must have been addressed to the master of the greatest part of the world. His table was served with the most frugal simplicity, and whenever he was at liberty to consult his own inclination, the company consisted of a few select friends, men of learning and virtue, amongst whom Ulpian was constantly invited. Their conversation was familiar and instructive; and the pauses were occasionally enriched by the recital of some pleasing composition, which supplied the place of the dancers, comedians, and even gladiators, to frequently summoned to the table of the rich and luxurious Romans. The deeds of Alexander was plain and modest, his demeanour courtly and affable; at the proper hours his palace was open to all his subjects: but the voice of a critic was heard, as in the Eleusinian mysteries, pronouncing the same inhuman admonition; "Let none enter these holy walls, unless he is conscious of a pure and innocent mind."

His kindness, through a prince of sound judgment and good disposition, and though he owed many of the excellencies he possessed to her wisdom and attention, was more fond of pomp than himself; and did not approve the plainness and popularity of his behaviour. "Take cars," said she to him one day, "you weaken not your authority, and render it contemptible.

"I render it," he answered, "more secure and more durable.

While he was kind, and sometimes severe, in his administration of public justice, and in the punishment of those who oppressed the public, he was naturally mild and gentle: and though he practised rigid economy, and exercised self-denial in every thing that pertained to his own gratification, he was liberal and beneficent. In the course of his reign he made three general distributions of provisions to the people, and three large legacies in money to the soldiers. To the indigent and distressed he gave lands, flocks, cattle, and all necessary implements of husbandry; rightly judging, that this mode of exercising his liberality was more beneficial and less humiliating than the giving of gold and silver. If he granted pecuniary assistance, it was by way of loan; and he established a bank, where all who wanted money found it at a moderate interest, and on some occasion he lent without interest. It was a saying of this emperor; "Imperium in virtute, non in decore;" i. e. "The majesty of the empire consists in virtue, and not in an ostentation of riches." Although he was very religious, his offerings in the temples were not magnificent. He often repeated the words of Persius (Sat. ii. v. 69.) "In facro quid facit aurum?" "What has gold to do with Sacred things?" His respect for virtue extended to the dead, as well as to the living. Accordingly he collected in Trajan's statue the statues of the desirous emperors of Rome, and of the famous Roman commanders, and adorned them with inscriptions, setting forth their great exploits and eminent virtues. In his palace he had two chapels, in which the principal objects of his veneration were ranged in two classes, the one destined to virtue, and the other to talents. In the first were placed the good emperors, among whom he very erroneously ranked Alexander the Great; and next to them the wise men, by whose salutary lessons mankind had been benefited; and here were blended Abraham, Orpheus, Apollonius Tyaneus, and Jesus Christ. The second chapel was devoted to military heroes, and men conspicuous in the republic of letters, Achilles, Cicero, Virgil, whom he called the Plato of the poets, and some others. In order to encourage the progress of letters and of science in general, he allotted pensions to rhetoricians, grammarians, physicians, architects, men skilled in mechanics, and even to alchemists and astrologers. He established schools for all these arts, and provided for the instruction of the poor without expense to them. His life, however, has not been free from blemishes. His preference for his mother was considered as carried to a culpable excess, more especially as she, with all her good qualities, was addicted to vanity and avarice. He gave her name to several buildings, which, as we learn from Annalinius Marcellinus (lib. xxvii. p. 372.), they retained in the fourth century; and caused her to be honoured with the title of Augusta, mother of her country, of the armies, and of the Senate. He was also charged, and not altogether without foundation, with being of a voluptuous and inquisitive temper; and with being inclined to vanity; which latter weakness he indicated by his aversion of praise and his affectation of being regarded as a Roman and of the family of Marcelli, and not a Syrian. His timidity likewise betrayed him into imbecility of conduct; particularly with reference to the praetorian guards, who by their mutiny produced a civil war in Rome, that lasted three days, and that terminated in the massacre of Ulpian. Although this wife man, who was the friend of the laws and of the people, sheltered himself from theeditious rage of this class of perfons in the emperor's palace, and was murdered even in his presence, he had not resolution sufficient to avenge this atrocious crime in the manner it deserved. Such indeed was the weakness of government, that the tyranny of the army threatened with inftant death his most faithful ministers, provided that they were only suspected of an intention to correct their intolerable disorders. The historian Dion Cassius, who had commanded the Pannonian legions with a spirit of ancient discipline, and whom the emperor recompensed by appointing him his colleague in the consulship, was compelled to retire, by his advice, from the city, and to spend the greatest part of his consulship at his villas in Campania, and the remainder of his days in Bithynia, his native country. Dion. Cafl. Hift. lib. lxxx. p. 1371.

On another occasion, however, he manifested a becoming firmness and magnanimity. When some of the soldiers at Antioch had excited a sedition in the legion to which they belonged, and interrupted his mild expostulations by their clamours, he addressed them in the following dignified and spirited language: "Refrce your spirits, till you take the field against the Perians, the Germans, and the Sarmatians. Be silent in the presence of your sovereign and benefactor, who bestows upon you the corn, the clothing, and the money of the provinces. Be silent, or I shall no longer bear you soldiers, but citizens: if those indeed who disclaim the laws of Rome deferve to be ranked among the menial of the people. When their branded arms threatened even his person; "your courage," he exclaimed, "would be more nobly displayed in the field of battle; me you may defy; you cannot intimidate; and the severe justice of the republic would punish your crime, and revenge my death." The clamour continuing, the emperor, with a loud voice, pronounced the decisive sentence: "Citizens, lay down your arms, and depart in peace to your respective habitations." Such was the effect of the sentence, that the clamour was instantly silenced; the soldiers confessed their crime, and supplicated forgiveness; nor were they returned to their rank in the army, till he had punished with death those
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those tribunes, whose connivance had occasioned the mutiny. The grateful legion served the emperor, whilst living, and revenged him when dead. The difference of his temper and conduct on the occasions above recited must be ascribed to the different vigour of mind, which he possessed in his youth and in his ripen age. When he became capable of taking the government into his own hands, and of exerting his genius and courage, no prince could more effectually command the awe, as no one ever more deferved the love, of his soldiery. It was a frequent declamation of Alexander, "the soldier does not fear his commanders, unless he be fed and clothed, and has some money in his purse." And whilst he furnished them with mules and camels to carry part of their baggage in their marches, he used to say, "that he took more care of his soldiers than of himself, because it was on them that the welfare of the republic depended;" and he perfected the plan which other emperors had concerted for securing to the troops a decent and comfortable retreat in their old age.

Whilst Artaxerxes, the restorer of the Persian monarchy, was preparing to invade the Roman dominions, Alexander sent ambassadors in order to diffuse him from engaging the two empires in a long and dangerous war. The mission was received with contempt; nor did any of Alexander's remonstrances avail to prevent the Persian monarch from ravaging Mesopotamia and entering Cappadocia. The emperor, therefore, resolved to march against him in person. In the spring of the year 233, Alexander, with an army of the prætorian guards and part of the hardy legions of Europe, advanced towards the frontiers of the Roman dominions to meet the great king, which was the haughty style assumed by Artaxerxes in his embassies; whose force conflicted, as history, fiercely credible, reports, of 120,000 horse, clothed in complete armour of steel, of 700 elephants, with towers filled with archers on their backs, and 1800 chariots armed with spears. Of the event of the battle which ensued, historians have given very contradictory accounts. Herodian affirms, and Mr. Gibbon acquiesces in his account, that the plan of Alexander for the conduct of the war, however judiciously concerted, totally failed. The emperor himself, influenced by his mother's counsels, and perhaps by his own fears, deserted the brave troops and the fairest prospect of victory; and after continuing in Mesopotamia an inactive and inglorious summer, led back to Antioch an army diminished by sickness and provoked by disappointment. But the Persian monarch, in several obstinate engagements against the veteran legions of Rome, lost the flower of his troops; and instead of expelling the Romans from the continent of Asia, found himself unable to wrest from their hands the little province of Mesopotamia. Crevier and many other modern writers chafe rather to follow Lampridius, whose account is entirely different from that of Herodian. The Persians, says this last author, were totally defeated, and Alexander approved himself an intrepid soldier and a skillful general. The great king fled before his valour; an immense booty and the conquest of Mesopotamia were the immediate fruits of this signal victory. Alexander, it is said, having taken care to guard Mesopotamia with several well garrisoned forts, returned to Rome. A. D. 254, to give the senate an account of his exploits, and was received by persons of all ranks with the greatest demonstrations of joy; and obtained a signal triumph. His triumphal car was drawn by four elephants; the air resounded with acclamations, and the shouting attendants unceasingly exclaimed, "Rome is happy, whilst the sees Alexander alive and victorious."

Soon after his triumph, Alexander, accompanied by his

mother, marched against the Germans, who had passed the Rhine, and who were making incursions into every part of Gaul. Upon his arrival in Gaul, he sent ambassadors to the barbarians in order to treat with them; and if Herodian may be credited, to purchase peace, which he preferred to the precarious Ihms of a war. Having passed the winter in the neighbourhood of the Rhine, he employed himself in introducing discipline among the licentious legions of Gaul. His attempts for this purpose produced different in the army, which were aggravated by a peron, originally a barbarian of mean origin, whose father was a Goth and mother an Alan, and who had been raised from the lowest station to the rank of a general officer. This peron was proclaimed emperor by the seditious soldiery; and made his way to the throne by the massacre both of Alexander and his mother. This event happened on the 19th of March, A. D. 235, when Alexander was in his 27th year, and after he had reigned 13 years. The untimely death of Alexander was universally regretted. The soldiery, who were not concerned in the plot, manifested their repentance by a speedy vengeance in immediately killing the murderers of their prince. The senate decried both to him and his mother divine honours; appointed for them altars, prayers, and sacrifices; and invested, in honour of the deceased emperor, an annual feast, which was celebrated on the first of October, the day of his nativity. Crevier's Rom. Emp. vol. viii. Book xxiv. p. 275-350. Anc. Uni. Hist. vol. xii. p. 432-449. Gibbon's Hist. vol. i. p. 238, 249, 337. vol. ii. p. 450.

Alexander Ægeus, a disciple of Sofogenes, and preceptor of Neo, by whom he is said to have been corrupted, is known as the author of a commentary on Aristotle's Meteorology; which has been attributed to Alexander Aphrodisius. Suidas. Fab. Bib. Graec. lib. iii. c. 11.

Alexander Ætolus, a grammarian of Pleuron, in Ætolia, was contemporary of Aratus, and celebrated among the seven writers of tragedy, called the pia alae in the time of Ptolemy Philadelpius. He also wrote elegies, cited by Athenæus (lib. xiv. p. 669.), and other poems, commended by Servius on the 10th Æanid of Virgil, and referred to by Athenæus (vi. p. 283. 296.) Suidas. Fabr. Bib. Graec. lib. ii. c. 19.

Alexander Aphrodisius, so called from a city of Caria, where he was born, was an eminent philosopher of the school of Aristotle, at the close of the second or beginning of the third century. He was appointed public professor of the Aristotelian philosophy under the Roman emperors, Septimius Severus and Caracalla; either at Athens or Alexandria, and dedicated the first fruits of his labours, which is an excellent treatise, "On Fate," affording the doctrine of Divine Providence, to these emperors. He was supposed to have so well understood the speculations of his master, and to have so satisfactorily explained them, that he was respected by his contemporaries as an excellent preceptor, and followed by succeeding Aristotelians among the Greeks, Latins and Arabsians, as the chief interpreter of Aristotle. He obtained the appellation of "The Commentator," on account of the number and value of his Commentaries. Hottinger and Herbelot affirm, that Arabic translations of his commentaries are still extant. In his book concerning the soul, he maintained, that it is not a distinct substance by itself, but the form of an organized body: he denies its immortality, and affirms, that to maintain the possibility of its excising separately from the body, was as absurd as to say that two and two make five. The works of this philosopher full extant are his book "De Fate," published from the press of Aldus, at Venice, in 1534, with a translation by Guilius, 12mo. at Amster-
dam, in 1638; and in London, with a new Latin translation, in 1688, 8vo. his Commentaries on Aridotle's Topics, Analytics, Metaphysics, Physics, Rhetoric, &c. first published at Venice, in the 16th century, and many of them afterwards reprinted in different places; but since the study of Aristotle has been neglected, his best commentator is forgotten. The principal of his medical works is his "Treatise on Fever," translated into Latin by Valla, of which Haller has given an analysis; Bib. Med. Pract. vol. i. p. 227. Faby. Bib. Grec. vol. iv. c. 25. Brucker's Philol. by Enfield, vol. ii. p. 102.

Alexander, Cornelius, harbored Polyhlfos, on account of the numerous histories written by him, a celebrated historian and grammarian, was born, according to Suidas, at Miletus; but, according to others, at Cotyæum, a city of Phrygia, and having been a slave, was sold to Cornelius Lentulus, to whom he was preceptor; and from whom he obtained his freedom and the name of Cornelius. He flourished about 80 years before Christ. From Suidas we learn, that he was the disciple of Crates, and that he was at Rome in and before the time of Sylla. He perished in the flames of his house at Laurentum; and his wife became distracted by the event, and hanged herself. Suidas further adds, that he wrote innumerable works; and particularly live books concerning Rome, in which he says, that a Hebrew female, called Mofa, was the author of the Hebrew law. His works in history and philosophy are cited by Plutarch, Laertius, and other ancient writers. Clemens Alexandrinus (Strum. lib. i. tom. i. p. 356, ed. Potter) cites a book concerning the Jews, in which Alexander mentions letters of Solomon to Vaphres, king of Egypt, and to the king of the Phoenicia of the Tyrians, and their respective answers. He refers also (tom. i. p. 538.) to remarks made by Alexander on the mode of living in use among the Indian Brachmans; he reports (tom. i. p. 357.) from a book of Alexander concerning the Pythagoric Symbols, that Pythagoras was a disciple of Nazaratus, an Assyrian, erroneously supposed by some to be the same with the prophet Ezekiel, and that he had also received instruction from the Galli and Brachmans. Eusebius, (in his Prep. Evang., lib. ix. c. 17.) makes a long extract from Alexander's book concerning the Jews, and extols the author's well-known great ingenuity and various learning. This is probably the work referred to by Justin Martyr, in his "Exhortation to the Greeks," when he mentions those who represent Moses as the leader of the Jews. Plutarch (de Mufca, Op. tom. ii. p. 1132.) and Athenæus (lib. xi.) speak of him as a writer in music; and his acquaintance with natural history may be inferred from Pliny's frequent references to his works. Fabr. Bib. Grec. lib. v. c. 38. tom. ix. p. 439.

Alexander Pseuephontis, an artful and prodigal impostor, was born at Abonotichos, in Paphagonia, and practised his delusions in the reign of the emperor Aurelius, towards the close of the second century. He poiffed himself by nature a variety of talents and accomplishments, by the misapplication of which he was qualified for imposing upon the credulity of the vulgar. Delitute of principle, he engaged with a countryman and disciple of Apollonius Tyaneus, who, under the mask of a medical profecion, exercised the trade of an impostor and magician, and deluded those who applied to him by pretending to reveal secrets in concerns of love, and of lost and hidden property. Alexander was an useful servant and an apt scholar; and when his master died, piffed his leisons and followed his trade. Such was his success, that he infatuated a rich Macedonian woman, and induced her to follow him and his associate from Bithynia to Macedon and to Pella, to contribute by her fortune to their support. Having procured, in the neighbourhood of Pella, one of those large serpents, which are perfectly harmless and very tractable, and with which that country abounds, they determined by means of this animal to establish an oracle, which should impose upon those persons who were eager to gain the knowledge of futurity, and who by their credulity were susceptible of delusion. In their way to Abonotichos, the proposed scene of their operations, they visited Chalcedon and formed a party, by whose assistance they had access to the temple of Apollo, where they hid tablets of brass on which it was written, that Ateulpis, with his father Apollo, would soon make Abonotichos the place of their residence. The inhabitants of this place were so completely delled, that they laid the foundation of a temple to Ateulpis, with whose presence they expected soon to be honoured. Alexander, by a pretended oracle, caused himself to be declared a descendant of the hero Perius, and the son of Podalirius, which his stupid countrymen believed, though they well knew that his father and mother were perfoms of the meanest condition. With a drefs and accompaniments, suited to this high original, he entered his native town. Having hidden a goose's egg, in which he had put a young serpent, near the foundations of the temple, and having previously performed a variety of superstitious ceremonies, he went with a crowd of attendants in search of his egg; and when he had found it, he declared that Ateulpis, who was worshipped under that form, was actually arrived, and the people received him with acclamation. Alexander proceeded with his imposture by exhibiting his serpent, prepared for the purpose, to the deluded multitude, who believing himself possessed of the power of working miracles, and misled by his affected enthusiasm, were suitably disposed for every thing that followed. From Abonotichos the delusion spread through all the neighbouring nations, and the people fainted from Galatia, Bithynia, and Thrace, to see the new god, whom the prophet called Glycon. Money was procured to finish the temple, and the god was to make it the place of his abode, and to give oracular answers to those who consulted him. The oracle was confuted by a billet, which Alexander contrived to open secretly; and he adapted the answer to the purport of its contents. By degrees he made his god pronounce oracles with his own voice, by the assistance of a person that was concealed behind him; and these oracles were delivered only to the rich and powerful. This practice became a gainful trade, and the impostor derived from it a yearly income, which amounted to 7 or 800 thousand drachmas, and which enabled him to live sumptuously, and to purse those debaucheries to which he was inclined, and to which he had been habituated from his youth. It was not long before the reputation of this profligate reached Rome; and Rutilianus, a superflitious fanot of the first rank, was deceived by him, and thus the number of those who consulted him was prodigiously augmented. Rutilianus, who believed the doctrine of the transmigration of souls, desirous of being informed under what form he had lived in former ages, and whose soul he now poiffed, received an answer which served him as a basis for a numerous and the impostor, which gave him such influence over the crudulous fanot, that he converted many others to his belief, and induced them to be exalted to the rank of the gods. Lucian, who blends fiction with his humorous account of Alexander's impostures, relates, among other instances of his delusion, the following incident. Rutilianus, having procured for him access to the emperor, delivered him an oracle, commanding that, in the war between Marcus Aurelius and the Quadi and Marcomanni, two lions should be thrown alive into the Iler, with speics and a fucces, and promising, that the consequence would be victory, glory and peace. The order was exeuted, and
and the kings, who swam on shore into the enemies' country, were destroyed; but the Romans were soon afterwards totally defeated. Alexander, for preferring his reputation, calmly said, that the oracle had foretold a victory, but had not declared whether it would happen to the Romans or their enemies.

Amidst the successes of Alexander, he found himself attacked by two classes of adversaries, who determined to unmask his imposture. These were the Christians and the Epicureans. In order to counteract their influence, he began the ceremony of the pretended mysteries, which he instituted in imitation of the Eleusinian, with proclaiming, "Hence all Christians!" and the choir rejoined, "Hence all Epicureans." He also often repeated, that Pontus was full of Atheists and Christians, and that these enemies of the gods ought to be forestalled; and what he advised, he endeavoured more than once to execute. Lucian, who once endeavoured to enslave him, had nearly lost his life in the attempt. The impostor, however, determined to destroy him; and with this view he received him politely, and, at his departure, made him presents, and furnished him with a veil and rovers. When he was at sea, he observed the pilot weeping, and disputing in a mysterious manner with the seamen. At length the honest pilot disclosed the secret, and with great concern informed Lucian, that he had received orders to throw him into the sea; but that he had lived with honour for 60 years, and that he could not prevail with himself to render his old age infamous, and incur the displeasure of the gods by murder. Lucian was put on shore, and escaped the villainy of the impostor. This delusion lasted 20 years; but it is said, that Alexander terminated his life in a tragic manner; being destroyed by worms, which proceeded from a mortification in the foot, leg, and thigh. Lucian's Alexander feu Pseudomantis apud oper. tom. ii. p. 207. Crevier's Rom. Em. vol. vii. p. 346—357. See imposture and truth admirably contrived in the character and conduct of St. Paul, and this Alexander, by Lord Lyttelton in his "Conversion, &c. of St. Paul," Works, vol. ii. p. 54, &c. 8vo.

Alexander the Sophist, was born in Seleucia, a city of Cilicia, and educated under Favorinus, Adrian's great favourite, who taught him the art of speaking, in which he excelled, and for which he is highly commended by Philostratus. The first office he filled was that of ambassador from Seleucia to the emperor Antioch; and he was afterward interpreter for the Greek tongue to M. Aurelius. He spent the greatest part of his life in the schools of Antioch, Rome, and Tarus; and he visited almost all the parts of Egypt. Whilfe he was at Athens he acquired great fame by the extemporaneous orations which he delivered, and received very distinguished tokens of favour from Herod. He died, as some say, in Gaul, but according to others in Italy, at the age of 65, or by some accounts, 68 years. Philostratus de Vitis Sophitarum, apud oper. p. 570. ed. Olearii.

Alexander Trallian, a learned and ingenious physician of Tralles, a city of Lydia, flourished at Rome in the time of the emperor Julian, about the middle of the sixth century. Friend is very copious in his account, and profuse in his encomiums on the works of this great man, whom he considers as one of the best practical physicians among the ancients.

Like Hippocrates he travelled over various countries, over Italy, France, Spain, and Egypt, to improve himself in knowledge; and is said to have acquired a competent acquaintance with the languages of the different countries through which he paffed. He invented several compositions, and improved many of those in common use. He was liberal in administering preparations of iron, internally, which before his time was little, if at all, done. He followed the practice of Hippocrates and Galen, though not servilely, but as preferring it to that of Attius and Orbadius, with whose works he appears to have been well acquainted. He was not however free from some of the errors of the age in which he lived, being credulous and superstitious, and having great faith in charms and amulets. He has given no account of the diseases peculiar to women, which Friend justly thinks, confidering the general estimation he was in, and the extent of his practice, is very singular.

His works were first printed in Greek by Robert Stephens, at Paris, 1548, in folio; in Greek and Latin, at Ba&ep, 1556, Julian. Guinthero Interpretae. For an account of various other editions, see Haller's Bib. Med. Prac. vol. i. p. 305.—Haller's edition was printed at Lyons, in 1774.

Alexander Janneus, king of the Jews, was the third son of Hyrcanus, and succeeded his brother Aristobulus in the year before Christ 106. Queen Salome, the widow of Aristobulus, took him and his two brothers out of prison, and placed Alexander on the throne. His fourth brother endeavoured to deprive him of the crown, and was put to death; but the youngest, whose name was Abfalom, was favoured with his protection, as long as he lived. Alexander, being a subtle and warlike prince, began his reign with leading an army against Ptolemais; but his own dominions being invaded during his absence by Ptolemy Lathyrus, he was obliged to raise the siege and return to defend them. On the banks of the Jordan he was defeated, with the loss of 30,000 men, besides those that were taken prisoners, and if he had not been succoured by Cleopatra, Lathyrus would have forced his way into Judæa. Alexander, after an interview with Cleopatra at Ptolemais, returned to Jerusalem; and having recruited his broken army, he marched against Gadara and took it. He next proceeded against Amathus, and reduced it after a very short siege; but he was soon obliged to relinquish it in consequence of a defeat by Theodotus, the son of Zeno, tyrant of Philadephia, in which he lost many men, his baggage, and the whole of the treasure which he had taken possession of at Amathus. The next place against which he directed his arms was Gaza, which had afforded protection and asilance to Lathyrus; and on this account, as soon as the town was betrayed to him, he revenged himself on the inhabitants after leading them to exspect clemency and moderation, by abandoning them to the fury of his soldiers. However, this act of vengeance, executed with singular severity, provoked the citizens to refit to the utmost of their power; so that he lost of his own men as many as he destroyed of the enemy. He then reduced the city to a heap of ruins. On his return to Jerusalem, the people, exasperated by the Pharisees, who were constantly caballing against him, insulted him with the most opprobrious language, exclaiming that such a flave as he was unworthy of either the pontifical or regal dignity, and proceeded even to violence against his person. Although he took effectual measures to secure himself from further insult and injury, he was wearied with their clamours and marched out of Jerusalem, in order to gratify his inclination for war. Having taken and destroyed the city of Amathus, he proceeded against the Arabians, whom he subdued, and then laid the Moabites and Mountaineers of Gilead under tribute. Near Gadara he fell into an ambush, and it was with great difficulty that he escaped and regained his own capital. During his absence, his inverte enemies, the Pharisees,
caused a rebellion, which brought on a civil war, that lasted six years. Demetrius, surnamed Eucaerus, assaulted the rebels with a considerablc force; and after some previous skirmishes Alexander was defeated, and forced to retire for shelter to the mountains. This defeat, however, induced the Jews who had joined Demetrius to defect him, and join the army of Alexander; and Demetrius, alarmed by this defection, left Judea. This circumstance afforded Alexander an opportunity to march against the rebellions Jews; but though he defeated them in every engagement, the fury of their resentment continued till a decisive battle put an end to the war. In this last action he cut off the greatest part of their army, and drove the rest into Bethome, which he besieged and captured. Josephus, who being a zealous Pharisee, may possibly have exaggerated, informs us, that he caused 800 of the principal captives to be carried to Jerusalem, where they were all crucified at the same time and place; and that whilst they were hanging on the crosses, he ordered their wives and children to be butchered before their faces. It is added by the historian, that a banquet was prepared for himself and his comhunists, so near to this horrible scene, that they might behold and enjoy the torture and diffrets of the sufferers.

After this event, the rebels dispersed; nor were the Pharisees able to make any effort against him as long as he lived. The succeeding years of his life were employed in extending his conquests through Syria, Idumea, Arabia and Phoenicia; and in establishing his character as a warlike and victorious prince. His return to Jerusalem, after an expedition of three years' continuance, was the occasion of loud acclamations on the part of his subjects. But from this time he devoted himself to drinking and other debaucheries; which at length brought on a quartan ague, that prevailed till the day of his death, which happened about three years after his return. His ambition for making new conquests still continued; but his strength being exhausted both by fatigue and intemperance, he died in his camp before Regaba, a fortress in the Gerasene territory beyond Jordan, which he was besieging, in the 27th year of his reign, in the year before Christ 70. He left two sons, Hyrcanus and Aristobulus; but decreed by his will, that his wife Alexandra should govern the kingdom during her life, and appoint for her successor either of them, according to her own pleasure. Alexandra, by conciliating the Pharisees, according to the advice of her husband, secured their influence with the people; so that they celebrated the funeral of the deceased king with great pomp, and confirmed her as a sovereign administratrix of the nation. Her eldest son Hyrcanus was appointed high priest, and the direction of all affairs of importance was committed to the Pharisees. Their resentment against those who had opposed him in the late reign still continued; and they contrived every method that was practicable for destroying them. This conduct, to which they faw no end, induced them to assemble, and with Aristobulus at their head to wait on the queen and to implore her protection. The queen, having forborne herself and the government to the Pharisees, could devise no means for their liberty, that were likely to be effectual. At length she complied with their request, and confented that they should disperse themselves into places where he had garrisons. In the year before Christ 70, Alexandra was feized with a disorder which threatened her life; and when Aristobulus perceived her danger, he repaired to his friends, in the garrisoned towns, and they arranged themselves in great numbers under his standard; hoping that he would exert himself for abolishing the odious and oppressive tyranny of the Pharisees, and well knowing, that no service of this kind could be expected from his brother Hyrcanus, who had been educated by his mother in a blind submission to this fact. The Pharisees were alarmed, and accompanied Hyrcanus to the queen, in order to represent what had occurred, and to demand her assent. The impaired state of her health would not admit of her interference, and leaving the care of the government to them, she appointed Hyrcanus her heir general, and soon after expired. Accordingly he took possession of the throne, and raised an army to oppose his brother, who was supported by the people. A battle near Jericho decided the quarrel. Hyrcanus, abandoned by the greatest part of his troops, who went over to his brother, was obliged to fly to Jerusalem, and afterwards to seek an asylum in the castle of Baris, whilst his partisans, who were chiefly of the sect of the Pharisees, took refuge in the temple. In a little while they, as well as Hyrcanus, submitted to Aristobulus, and in the year before Christ 69, he obtained both the high-priesthood and the crown. Josephus Ant. lib. iii. c. 12—15. tom. i. p. 666—675. Bell. Jud. lib. i. c. 4. tom. ii. p. 59—62. Anc. Un. Hist. vol. iii. p. 114—123. Rollin's Anc. Hist. vol. viii. p. 4—11.

Alexander, Balas, king of Syria, was, as some say, the natural son of Antiochus Epiphanes, but according to others, a young man of mean extraction at Rhodes, named Balas, surnamed by Heracleides, at the instigation of Ptolemy, Attalus, and Ariarathes, to perforate the son of Antiochus Epiphanes, and under that title, to lay claim to the crown of Syria, in opposition to Demetrius. After he had been acknowledged by the three kings above-mentioned, Heracleides, who conducted the imposture, took him to Rome, in the year before Christ 153, and together with him Lacedaemon, the real daughter of Antiochus Epiphanes, and presented them to the senate, who received them graciously, and passed a decree in their favour; though, as Polybius affirms, (Lagat. xxiii. p. 966,) the whole city was convinced of the imposture. The senate not only acknowledged Balas under the assumed name of Alexander, but decreed, that their allies should affix him in his endeavours for recovering the rights of his father. Thus countenanced by the Roman senate, he landed in Syria, and found no difficulty in raising troops, which, together with the succours afforded him by Ptolemy, Attalus and Ariarathes, enabled him to make himself master of Ptolemais, the reduction of which induced a great number of perfons who were disaffected to Demetrius to join him. Demetrius and Alexander were competitors for the favour and support of Jonathan, who had succeeded Judas Macabeus in the command of the Jewish forces, and strove to outvie each other in their alluring offers. Alexander, however, prevailed; and with him Jonathan formed an alliance. These two competitors took the field at the head of their respective armies; and though Alexander was defeated, he maintained his ground; and being supplied by his powerful allies with fresh succours, he succeeded in a second battle, in which Demetrius was killed, before Christ 150. Alexander, having gained possession of the whole Syrian empire, sent an embassy to Egypt, demanding Cleopatra, the daughter of Ptolemy, in marriage; and the king not only complied with his request, but attended her in person, and the nuptials were solemnized at Ptolemais in a very splendid and magnificent manner. Alexander could not bear his elevation and prosperity, but became indolent and debauched, and committed the management of his affairs to a profligate and tyrannical favourite, whose name was Ammonius, and who conducted himself with a degree of deploratif and cruelty, which exposted him and
and his master to the hatred of the whole nation. Demetrius, the eldest of the deceased king's sons, availed himself of this opportunity for recovering his right; and was acknowledged by Apollonius, governor of Cæcilia and Phenice. When Alexander was routed out of his lethargy, and perceived the danger of his situation, he applied to his father-in-law, Ptolemy, for assistance; and he marched to his relief with an army, which the author of the second book of Maccabees compares to the sand of the seashore.

Upon his arrival at Ptolemais he was informed, or as others say, he pretended, that Alexander was plotting against his life, and that Ammonius had charged himself with the execution of this detestable scheme of treachery. Ptolemy complained to the king of Syria of this plot, and demanded the criminal to be delivered up to him; but Alexander refusing to comply, Ptolemy concluded that he was privy to the design, and that Ammonius was only executing his master's orders.

Upon this real or feigned plea, Ptolemy determined to turn his arms against his son-in-law, and sent ambassadors to young Demetrius, offering him his daughter Cleopatra, the wife of Alexander, and promising to settle him on the throne of his ancestors. Demetrius accepted the offer, and when the news of this event reached Antioch, Ammonius was put to death by the populace; but the inhabitants of the city refused to declare in favour of Demetrius. However, such was the hatred they had conceived against Alexander, that they entered into a confederacy against him, and opened their gates to Ptolemy, offering to put the crown on his head. This prince, says Josephus, knowing how to fet bounds to his ambition, rejected the proposal, and with singular self-denial and generosity, declared, that he could not, without the most flagrant injustice, place himself on the throne of Syria, by excluding the lawful heir. He proceeded to recommend Demetrius by an eloquence on his character, and by pleading himself as a guarantee for his future conduct, at the same time undertaking to assuage him, and to teach him the art of governing. These disinterested representations of Ptolemy had the desired effect. Demetrius was proclaimed king of Syria, and placed on the throne of his ancestors. Alexander, who was then in Cilicia, assembled a numerous army and advanced to Antioch. Ptolemy met him, and a bloody engagement ensued, in which Alexander was defeated; and his adherents abandoning him, espoused the cause of Demetrius. Upon this Alexander fled to Arabia, and seeking refuge in the house of Zakud or Zabel, or as Diodorus Siculus (in Excerpta Photicii cod. 244.) calls him, Diccles, was murdered by his treacherous host. Ptolemy was wounded mortally by Alexander's friends; and when the head of the murdered prince was brought to him as a present from the Arabian, the joy he felt on the occasion soon put an end to his life. Demetrius, without any further opposition, took possession of his father's dominions, and styled himself from this victory Nicator, or the conqueror. Alexander Balas had reigned, according to Josephus, five, but according to the history of the Maccabees, six years, reckoning from the 166th year of the era of the Seleucidae to the 167th, which was the first year of the reign of Demetrius Nicator. This happened in the year before Christ 145. Such is the account which Josephus gives of the troubles of Syria, and the death of Alexander Balas. But the author of the history of the Maccabees varies much from him, especially in what relates to the character of Ptolemy Philometor, whom Josephus highly commends; whereas the author of the first book of the Maccabees represents him as an ambitious and pernicious prince, who trampled under foot the most sacred laws of nature and justice, to raise himself on the ruins of his son-in-law. Josephus Antiq. lib. xiii. c. 2. 4, tom. i. p. 624—625. Diodorus Sic. tom. ii. p. 592. 1 Maccabees xi. 4—12. Ant. Un. Hist. vol. viii. p. 224—225.

Alexander, bishop of Jerusalem, was a disciple of Panteenus and Clement of Alexandria, towards the close of the second century, and distinguished in his mature years by the firmness and zeal with which he maintained his Christian profession at a period of severe persecution. In the 12th year of the emperor Severus, A.D. 204, when he was bishop of the church in Cappadocia, he was imprisoned for his profession of the Christian faith; and his fidelity and constancy on this occasion induced the church at Jerusalem to choose him as a companion to Narcissus, whose advanced age of 167 years rendered him incapable of performing the duties of his office. His imprisonment seems to have continued from the year 204 to the year 211, at which time it appears from a letter written by him to the church of Antioch he was not released from confinement. About this time, however, or soon after, he visited the church at Jerusalem, and was promoted to the bishopric of that church. Of the revelation and visions which are said to have preceded his election, it is not necessary to give any account in this place; as they are not likely to obtain much credit. His known character and tried integrity obviously recommended him to this choice, and he approved himself worthy of it by a course of service and suffering that lasted 39 years. When the perfection of the Christians was renewed under the emperor Decius, Alexander, now venerable for his old age and grey hairs, as Eusebius expresses himself, was summoned to the governor's tribunal at Cæsarea, and about the year 256, avowing his profession, before the tribunal, he was cast into prison, where his confinement and sufferings terminated in his death, A.D. 251. From the fragments of his history that remain, and that are chiefly preferred by Eusebius in his "Ecclesiastical History," (p. 212. 216. 222. ed. Valer.) we learn, that Alexander erected a library at Jerusalem, which continued in his time, and furnished materials for his history. It appears also from the testimony of Origen, with whom Alexander was intimate, that he was not only eminently pious and devout, but peculiarly distinguished by his humility, meekness and gentleness; that he was a frequent and agreeable preacher; that he was a person of competent knowledge and learning, having been educated by Panteneus and Clement, and maintaining an intimate friendship with Origen and Clement, two of the most learned men that ever lived, and that he was also a patron of learning. We are also indebted to him for his glorious testimony to the truth of the Christian religion, and his own remarkable example of steadfastness in the faith of Christ, of which he made two confessions before heathen magistrates, at the distance of above 40 years from each other, for the last of which he suffered an imprisonment, under which he made a happy end. And certainly the succession of bishops and churches in the land of Judea, where the preaching, miracles and sufferings of Christ and his first apostles, are placed by the evangelists, under so many difficulties and troubles, affords a strong argument for the truth of those great and extraordinary facts, upon which the Christian religion is founded. Lardner's Works, vol. ii. p. 391—397. Cave. Hist. Liter. Sac. iii. tom. i. p. 100. ed. Oxon.

Alexander, bishop of Alexandria, succeeded Achillas in this see, in the year 312 or 313. In his time commenced the Arian controversy, in which he appears to have engaged with an ardour that was blended with a very considerable degree of bitterness of spirit. He calls Arius and his followers...
Alexander, Benedictus, of Verona, physician to the emperor Maximilian, taught anatomy and medicine with great reputation, at maxima frequentia auditorum, Catiliani says, at Padua, towards the end of the 15th century.

His work has been several times reprinted. See Biblog. Anat. Specimen Jacobi Douglas, p. 62. Also, Pet. Catalliani Vitae Illust. Medicorum, p. 159.

Alexander, Massylas, of Vicenza in Italy, practiced medicine there for twenty-five years. In 1578, he was made principal of the college of medicine at Venice. Having held this office, with great reputation, nine years, he went to Padua, ubi fenti confectus, Douglas says, obit, 1598. This physician was used to say, "fe malle cum Galeno errare, quam cum recentioribus vera dicere." He left a treatise, "De Urinis et pulibus," published 1568, at Frankfort, and "Opera Medica," published at Lyons, 1634. Douglas Biblog. Spec. p. 197.

Alexander, bishop of Lincoln, in the 12th century, was by birth a Norman, educated under his uncle, bishop of Salisbury, and by his interest promoted to the episcopal see in 1123. Having been accustomed in early life to a splendid mode of living, he affected a degree of flate, and indulged to expenses which were suitable neither to his character nor fortune. Henry of Huntingdon, in the dedication of his history to him, which is penned in the language of fervile adulation, calls him "the flower and top of the kingdom and nation;" and he informs us, that at the court of Rome he was styled "the Magnificent." St. Bernard, in a letter addressed to him about a year before his death, acts the part of a more honest friend, and cautions him "not to be dazzled with the lustre of secular grandeur, nor to look upon any worldly advantage as permanent; nor value his fortune more than himself; to guard against the flattery of prosperity, for fear of a turn of misfortune, which will last longer; not to be charmed with the transient satisfactions of life; for that scene will quickly be shut up, and make way for another both lasting and uncomfortable." He also advices him "not to deceive himself with any distant prospect of death; for such delusive hopes lead directly to danger and surprize, and are the likeliest way to hurry a man into the other world without preparation." In the course of his life, he did not seem to have been duly regarded by the court; in imitation of the barons and some of the bishops, he built three castles; one at Danbury, another at Slateford, and a third at Newark. He likewise founded two monasteries.

King Stephen was, not without reason, offended by these flately edifices and strong fortresses; and when he determined to take the castles from the barons, he seized that at Newark; in consequence of which the bishop was imprisoned for seven months, and with difficulty obtained his liberty. From this time he employed his thoughts and time in ornamenting his church, which he had rebuilt with a stone roof the year after his consecration; increasing the number of its prebends, and augmenting its revenue with several manors and cattles; and at length he rendered it the most flately and flourishing of any in the kingdom. He went twice to Rome, viz. in 1142 and

alexandros apollates, enemies of Christ, and impious; and adds, that they had done their utmost to exceed all past heretics, and to approach nearer to Antichrist; accordingly he communicated them from the church. He is called, however, by Theodoret (Eccl. Hist. p. 79, ed. Vales.) the Great Alexander, and a very excellent defender of the evangelical doctrine. Alexander was present at the council of Nice in 325, and died at Alexandria, before the end of that year, or some time in 326, within five months after the breaking up of the council, or after his return home from it. His writings consisted of epistles sent to bishops in several parts of the world, which, according to Epiphanius, (H. I. ix. n. 4.) amounted to 70 in number, and were extant in his time. Of these two now remain; one in Socrates (Hist. Eccl. lib. i. c. 6, p. 100, ed. Vales.) addressed to the bishops of Alexandria, and another in Theodoret (H. E. lib. i. c. 4, p. 8.) to Alexander, bishop of Byzantium, with fragments of some others. Fabr. Bibl. Grec. tom. viii. p. 341.

In thesese epistles several books of the New Testament, particularly St. Paul's epistles, are frequently quoted, and the epistle to the Hebrews received by Alexander as Paul's. He expresses a high respect for the scriptures, which he calls "divine;" and though he professes great regard to the wisdom and piety of ancient writings, near the days of the apostles, he seems not to have considered them as decisive and of authority in matters of religion, as he has not frequently cited them. Lardner's Works, vol. iv. p. 103—105.

Cave H. L. tom. i. p. 173.

Alexander, of Lycope, a city of Thesbai, was, as Fabricius (Bibl. Grec. tom. v. p. 250.) supposes, first a Heathen and Manichee, and afterwards a Catholic Christian, in which opinion Cave (De Scriptoribus Eccl. incerti atetatis, p. 2. H. L. tom. ii.) concurs, and a writer, probably of the fourth century. Photius calls him archbishop of Cyropolis; but Beaufobre argues, that he was a mere Heathen or Pagan philosopher, and Tilllemont adopts the same opinion. Dr. Lardner observes, that if he was ever a Manichee, he must have been at that time a Christian, as the Manichees were Chrlissians; but it is not easy to determine what he was afterwards, when he wrote against them. This excellent writer inclines to think that he was a Gentile, and places him at the year of Christ 350. He seems to have been well acquainted with the Manichees and other Chrlissians; and to have had some knowledge of the scriptures of the Old and New Testament, to which he occasionally refers. He expresses himself, with respect and commendation, concerning Chrliss and the Christian philosophy, which he represents as "simple, and intended, by plain precepts, without nic disquisitions and intricate reasonings, to promote virtue among all sorts of men, and even among the lower ranks, and common people." He was evidently, says Lardner, a learned and rational man. His work, intitled, "αγάστηρ, Μαντικοεις, δεξαμενος," against the opinions of the Manichees, was published in Gr. and Latt. by Combechius, in tom. ii. Actarium Patr. Græc. Novellum, at Paris, in 1672, fol. It is extant also in MS. in the Caâresian library. Fabricius, ubi supra, Cave, H. L. ubi supra. Lardner's Works, vol. iii. p. 384, vol. viii. 349—511.

Alexander was the name of one of the martyrs of Lyons, A. D. 177. He was a Phyrgian by nation, and by profession a physician; he had lived many years in Gaul, and was known almost to all men for his love of God and boldness in preaching the word. When he fled before the tribunal, to which he was cited, he boldly confessed that he was a Christian; upon which the enraged prelud condemned him to the wild beasts. When he had undergone
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1144; and after his first visit, he returned as the pope's legate, and called a synod, in which he published several useful canons. In 1147 he visited the pope in France; and there fell sick, so that he returned with difficulty to England, where he soon died, in the 24th year of his prelacy. Biog. Brit.

ALEXANDER I, pope, was a Roman by birth, and bishop of Rome during the reigns of Trojan and Adrian, from the year 1089 to the year 1105. He is said to have introduced the use of holy water and other ceremonies. He was enrolled as a martyr, and canonized as a saint. Bower's Hist. Popes, vol. i. p. 21.

ALEXANDER II, pope, was a native of Milan, of the name of Anselm, and removed from the fee of Lucca to that of Rome, in the year 1061. He was elected pope by the influence of Hildebrand, who was at the head of the ecclesiastical faction at Rome, in opposition to the empress Agnes, widow of Henry III. who was regent during the minority of her son Henry IV. and who supported the lay-faction, in the contest that subsisted between the clergy and laity. By her influence Cadalous, bishop of Parma, was elected pope, under the name of Honorius II. The dispute was terminated by a council at Mentana in 1064, and Alexander, by a signal triumph of the church over the civil power, was declared lawful pope. The discipline and privileges of the clergy were the principal objects of this pontiff's attention; and the subordinate instrument of conducting his measures was Peter Damian, a monk, and a zealous defender of the monastic orders. Having acquired a power thus paramount to every other, Alexander laid hold of every opportunity that occurred for interfering in the feudal concerns of kingdoms and princes. With a view of extending the influence and increasing the emoluments of the papal see, he sanctioned the project of William, duke of Normandy, for the conquest of England; denounced excommunication against Harold as a perjured usurper; and sent William a consecrated banner, and a ring with one of St. Peter's hairs in it; thus, as Hume says (Hist. vol. i. p. 186), "covering over safely all the ambition and violence of that invasion with the broad mantle of religion." His views were accomplished; William succeeded; the authority of the pope was confirmed; and his legates, till this time unknown in England, exercised arbitrary power.

Alexander extended his authority to other countries as well as to England. He not only prohibited the young emperor from divorcing his wife Bertha, but, in 1073, summoned him to appear at Rome, and to account for his conduct in the dilapidation of church benefices for providing his army with supplies. Henry was indignant; but the dispute was closed by the death of the pope in 1073. The increase of papal tyranny, under the direction of Hildebrand, to whom this pope was subservient, and by whom he was succeeded, discriminates his pontificate. Many of his letters on public affairs are extant; and one of them, addressed to the bishops of Spain for the purpose of restraining the cruelties which they exercised towards the Jews, does honour to his humanity. For an account of these letters, amounting in number to 45, see Dupin's Eccl. Hist. vol. iv. p. 29; and also Bower's Hist. Popes, vol. v. p. 224.

ALEXANDER III. Pope, was born at Sienna, where he was bishop under the name of Roland, and succeeded Adrian IV. in 1159. At the time of his aecession to the papal chair, Frederic I. was making vigorous attempts for reducing the power of the Roman see; and cardinal Odo- van was elected pope under the name of Victor IV. in opposition to Alexander. After the death of Victor, in 1164, cardinal Guy was chosen by the influence of the emperor, and denominated Paschal III. But the whole interest of the Roman clergy was exerted in favour of Alexander, who, in the former pontificate, had been compelled to retire into France, and he now returned to Rome, and was restored to his see. Councils were summoned to settle the dispute. The council of Wurtzburg, convened by the emperor in 1166, produced an union of the nobility and clergy in support of the rights of Paschal; and the council of Lateran, called by Alexander in 1167, deposed the emperor, and abrogated the oath of allegiance by which his subjects were bound to him as their lawful sovereign. At length an appeal was made to the sword; and though Frederic was at first successful, and upon the death of Paschal procured the election of John, Abbot of Strum, as his successor, under the name of Calixtus III., he was in the issue obliged to give up the contest, and in a treaty of peace, made with Alexander at Venice in 1177, to acknowledge him as lawful pontiff. The pride of Alexander knew no bounds on occasion of this triumph. When Frederic was prostrate at his feet, he addressed him with the words of the Psalms, "Thou shalt tread upon the lion and adder; the young lion and the dragon thou shalt trample under foot;" and when the emperor replied, "Not to you, but to Peter," the pope answered, "To me, and to Peter." This story is discredited by some writers, but believed by others, and the truth of it is confirmed by concurrent circumstances, for which we refer to Dupin. After the establishment of Alexander, he treated his rival Calixtus III., with condescension and kindness, and appointed him to the see of Benevento. The pope, securely seated in the papal chair, directed his attention towards securing the independence, and maintaining the prerogatives and privileges of the triple crown; and in order to prevent the disorders likely to arise in future from equal factions, he obtained a canon in the third council of Lateran, held at Rome in 1179, which enacted, that the right of election to the pontifical dignity should not only be vested in the cardinals alone, but that two-thirds of the votes of the electors should be necessary for rendering it legal. Thus the people, and even the Roman clergy, were entirely excluded from all participation in the honour of conferring this important dignity. At this council, the right of recommending and nominating to the faintly order was taken away from councils and bishops, and canonization was ranked among the greater and more important causes, the cognizance of which belonged to the pontiff alone. In this year he exercised that tyranny over princes, which had been usurped by the popes from the time of Gregory VII. in conferring the title of king, with the enfeigns of royalty, upon Alphonso I. duke of Portugal, by an arrogant bull, in which he treats him as a vassal. Whilst he was in France, he had supported the cause of Thomas Beckett against his sovereign Henry II., and in 1164, when the confilutions of Clarendon, which af- fered the king's jurisdiction over the clergy, were sent to him for confirmation, he rejected and annulled them. When Becket was banished, he received him kindly; obtained for him a pension from the French king, abrogated the sentence that had been passed upon him; reinstated him with his dignity, and appointed him his legate in England. After the murder of this arrogant prelate, Alexander, who had kept the king in awe during the whole of the contest, by the terror of excommunication, compelled him to undergo a very severe penance; and having forgiven him, swelled bulls at his desire, against his son, and canonized the arch-bishop. Alexander, as a rigorous defender of the catholic faith,
Alexander IV. pope, was born in 1431, at Valencia in Spain, and by the interdict of his uncle, pope Calixtus III., was appointed cardinal in 1455; and afterwards archbishop of Valencia, and vice-chancellor of Rome. The enmities of this last office enabled him to maintain the flate of a prince, and supplied him with the means of licentiousness and extravagance, to which he was addicted from his youth. Under pope Sixtus IV., he was legate in Spain; and at last by affirming a nullity, which his conduct did not justify, and by bribing the cardinals, he was elected, at the age of 61, to succeed pope Innocent VIII. in 1492. He then changed his original name of Rodrigo Borgia for that of Alexander VI. By Vanozza, a Roman lady, with whom he had continued an illicit connection for many years, he had five children. His second son was Cesare Borgia, who was a monster of debauchery and cruelty, and who is said to have quarrelled with his elder brother for the favour of his sister Lucretia, and to have killed him, and thrown his body into the Tiber. Notwithstanding his infamous character he was the favourite of his father, who trampled with contempt on every obstacle, which the demands of justice, the dictates of reason, and the remonstrances of religion laid in his way, in order to aggran­dize his children, and enrich himself. In his political con­nections he was faithless and treacherous; and formed al­iances with the purpose of violating them. Having engaged


Alexander V. pope, was born in the isle of Candia, about the year 1339. His original name was Philippo, and his parents were poor, that in his childhood he was under a necessity of begg­ing his bread. An Italian monk took him under his protection and instruction, and procured his admission into his order of friars minors. By his recommendation he became a student at Oxford, and afterwards took his degree of doctor in divinity at Paris. Having passed through several gradations of preferment, being first bishop of Vicenza, then of Novara, and at length archbishop of Milan, cardinal, and legate of pope Innocent VII. in Lombardy, he was unanimously elected pope by the cardinals, at a coun­cil in Pisa, in the year 1409. This pontiff was good-lu­moured and liberal; and having no speedy relations and dependants, for whom he was under an obligation of pro­viding, he had the means of extending his generosity to those that were connected with the church, particularly to the mendicant orders of monks, who were distinguished by his patronage and favour. Such was his munificence during his pontificate, that he used to say, "When I became a bishop, I was rich; when a cardinal, poor; and when pope, a beggar." He seems, however, to have counteracted the mildness and liberality of his natural disposition by the orders transmuted to the archbishop of Prague, enjoining him to proceed with rigour against Hifs and his followers. This zealous reformer, confiding in the known candour of the pontiff, instead of personally appearing at Rome, in compliance with the summons that had been sent him, commissioned two friends to plead his cause, saying, on his own part, "I appeal from Alexander ill-informed, to Alexander well-in­formed." When Alexander proposed to visit Rome, where he was expected, he was persuaded by Balthasar Cossia to ac­company him to Bologna. Whilst he was at this city he died, as some say, by the contrivance of Cossia, in the year 1410, having possessed the papal seat little more than ten months; and Cossia, by his influence with the cardinals, and a recommendation from Louis of Anjou, king of Sicily, was chosen to succeed him. Dupin, Eccl. Hist. vol. v. p. 8, &c.


Alexander VI. pope, was born in 1431, at Valencia in Spain, and by the interdict of his uncle, pope Calixtus III., was appointed cardinal in 1455; and afterwards archbishop of Valencia, and vice-chancellor of Rome. The enmities of this last office enabled him to maintain the flate of a prince, and supplied him with the means of licentiousness and extravagance, to which he was addicted from his youth. Under pope Sixtus IV., he was legate in Spain; and at last by affirming a nullity, which his conduct did not justify, and by bribing the cardinals, he was elected, at the age of 61, to succeed pope Innocent VIII. in 1492. He then changed his original name of Rodrigo Borgia for that of Alexander VI. By Vanozza, a Roman lady, with whom he had continued an illicit connection for many years, he had five children. His second son was Cesare Borgia, who was a monster of debauchery and cruelty, and who is said to have quarrelled with his elder brother for the favour of his sister Lucretia, and to have killed him, and thrown his body into the Tiber. Notwithstanding his infamous character he was the favourite of his father, who trampled with contempt on every obstacle, which the demands of justice, the dictates of reason, and the remonstrances of religion laid in his way, in order to aggran­dize his children, and enrich himself. In his political con­nections he was faithless and treacherous; and formed al­iances with the purpose of violating them. Having engaged

Charles
Charles VIII, in an enterprise for the conquest of the kingdom of Naples, he entered into a league with the Venetians and with Maximilian, to rob him of the fruits of his victory; and, after having obtained a large remittance from the sultan Bajazet, in order to enable him to carry on war against this king of France, he delivered up to him Zizim, the brother of Bajazet. His perfidy was only exceeded by his hypocrisy; for, notwithstanding his notorious vices, he proposed to the Christian princes to march at the head of an army against the Turks; and under this pretext he inflated a bull for a jubilee in 1500, by which he contrived to enrich his treasury. Of his presumption, as well as of his hypocrisy, we have a curious specimen in his division of America between the Spaniards and the Portuguese. For this purpose he appointed that a line, supposed to be drawn from pole to pole, a hundred leagues to the westward of the Azores, should serve as a limit between them; and, in the plenitude of his power, he beheaded all to the call of this imaginary line upon the Portuguese, and all to the west of it upon the Spaniards. At the same time he professed, that zeal for propagating the Christian faith, which was the consideration urged by Ferdinand in soliciting a bull for this purpose, was his chief motive for inflating it. In consequence of this bull, a great number of Franciscans and Dominicans were employed, with the avowed design of influencing and converting the Americans, both in the isles and on the continent.

The profligate career of this execrable hypocrite and tyrant was continued till the year 1503, when the poison which he and his son Cesar had prepared for others, and particularly for Adrian, a wealthy cardinal, who found in the way of his avarice and ambition, by a happy mistake, terminated his own days. Some writers, amongst whom is Voltaire, have disputed this account of Alexander's death; but Guicciardini and other reputable historians attest it. The life and actions of this pontiff shew, says Molheim, that there was a Nero among the popes as well as among the emperors. The crimes and enormities which history has imputed to this papal Nero, evidently prove him to have been not only detestable of all religious and virtuous principles, but even regardless of decency, and hardened against the very feelings of shame. Besides other infinities of infamous licentiousness with which he is chargeable, he is accused of incest with his own daughter. And though it may be possible that the malignity of his enemies may have forged false accusations against him, and in some infinities exaggerated the horror of his real crimes, yet there is upon record an authentic list of undoubted facts, which, by both their number and atrocity, are sufficient to render the name of Alexander VI. odious and detestable in the eyes of such as have the smallest tincture of virtuous principles and feelings. His infatiable avarice is pointedly expressed, says one of his biographers, in the following lines:

"Vendit Alexander claves, altaria, Christum, Vendere jure potest; emarat ille prius."

"Christ's altars, keys, and Christ himself, Were barr'd by this pope for pelf:
But who shall say he did not well?
That which he bought, he fear might sell."


Alexander VII., pope, was born of the illustrious family of Chigi, at Sienna, in 1590, and recommended by the marquis Pallavicini to pope Urban VIII. Having been inquisitor at Malta, and legate at Ferrara, he was nuncio in Germany, and employed at Munster in conducting the conferences that were intended to restore the peace of Europe. Some writers relate, that at this time he had formed the design of abjuring popery, and embracing the protestant religion, but that he was deterred from executing his purpose by the fate of a civilian, who had been poisoned on a similar account; and that he was confirmed in his religion by the elevation to the cardinalship. Upon his return from this mission, he was appointed bishop of Imola, in Romagna, and afterwards cardinal and secretary to the pope. His next advancement was to the papal chair, to which he was introduced by the unanimous suffrage of the 64 cardinals, which he contrived to obtain by that dissimulation and address, of which he is said to have been complete master. After his election, in 1655, he ordered his collars to be placed under his bed in his apartments in the Vatican, that it might serve to him as a memento of mortality; when he was robed in the pontificial habit, he appeared to have a hair-cloth under his shirt; and when a wealthy female, signora Olympia, waited upon him with congratulation, he dismissed her with a cold repulse, saying, "It is not decent for a woman to enter the dwelling of the father of the church." That the whole of this appearance of humility and self-denial was a farce, was sufficiently verified by his future conduct. The distaining feature of his character, next to his craft and dissimulation, was an attachment to his relations, for whom he provided by all the offices and honours which he could command. His zeal for religion, and his concern for terminating the wars which distracted the Christian world, seem to have subsided after his elevation to the pontificate; nor did he take any pains to conciliate the crowds of France and Spain. The five propositions of Janfenus, which contained the sum of his doctrine, had been condemned by Innocent X.; but the Janfensitists had contrived to evade this sentence by a subtle dissimulation, which allowed them to acknowledge that these propositions were justly condemned by the pope; but at the same time to maintain, that they were not contained in the book of Janfenus in the sense in which they were condemned. The benefit of this artful dissimulation they were not permitted long to enjoy. At the instigation of their enemies, Alexander VII., the successor of Innocent, issued a bull, in 1656, declaring, that the five propositions which had been condemned were the tenets of Janfenus actually contained in his book. He proceeded, in 1655, to send into France the form of a declaration to this purpose, which was to be subscribed by all those who wished to any prelature in the church. This declaration produced the most deplorable divisions and tumults. It was vigorously opposed by the Janfensitists, who maintained, that in matters of fact the pope was fallible, especially when his decisions were personal, and not confirmed by a general council; and, consequently, that they were under no obligation to subscribe this papal declaration, which had merely for its object a matter of fact. Notwithstanding this unwilful and intolerant bull, Alexander is said to have been liberal in his sentiments; to have disapproved of the severities exercised towards the Vaudois in Piedmont, and to have treated the protestants who visited Rome with condescension. It is further related, that when some English gentlemen presented themselves at his feet to pay him the customary homage, upon finding that they were protestants, he courteously said, "Ride, you shall not commit what you think an idolatry: I will not give you my blessing, but I pray God you may be worthy to receive it." To the Jesuits this pontiff manifested a peculiar partiality; for though Innocent X. had, in 1645, condemned the indulgence which these artful missionaries had
Alexander ab Alexandro, so called, because his Christian and family names were Alexander, was born at Naples in 1461. He relinquished the practice of the law, to which he was at first devoted, because, in the exercise of this profession, his integrity was in danger of being corrupted; and he preferred a small fortune, in the tranquility of retirement, and with the approbation of his own mind, to the pursuit of gain, with the hazard of his conscience. Against the power and favour of the great, he himself says, an advocate would find it impossible to support his clients; and the tide of suits depended not so much on the justice of the cause, as on the will and favour of an indolent or corrupt judge; so that it was fruitless to study with diligence and labour controverted points of law, with the varieties of its cafes; and he adds, that the provisions of law, though wisely contrived, were often insubordinately set aside and perverted. To such circumstances, and with these views and apprehensions, he acted honourably in declining a profession, which he could not exercise at the period, and in the country in which he lived, with advantage to those by whom he was employed, and without incurring self-reproach. From the works of the ancients, to which he had been accustomed to direct his attention, he made a collection of passages relating to the history and customs of the Greeks and Romans, which he arranged in five books, under the title of "Des Genes"; a work which manifests more learning than judgment or taste: An edition of this work, with notes of various writers, was published in two volumes, 8vo, at Leyden, 1673. The author appears to have been erudite and superficial, as he gives a vague account of dreams and spectres, and of haunted apartments in his house at Rome. He died in this city about the year 1523. Gen. Dict.

Alexander ab Alexandro, proto-medicus of Sicily, in which island he was born early in the 15th century; left a work on the duties and privileges of the office he held, which was afterwards published: "Constitutiones et regularitates jurisprudentialis Regni protomediticus Sicilie elucidata, scripta" Haller says, circa A. 1429, edita Panormi, 1564, 4to, a I Philippo Ingraffia.

Alexander Noel, or Natalis, a Dominican friar, and one of the most laborious writers of the 17th century, was born at Rouen, in Normandy, in 1579. Having been admitted into the order of Dominican friars, in 1655, he went to pursue his studies in philosophy and divinity, at the great convent in Paris; and was appointed, at the completion of his studies, to teach philosophy in the same convent. He continued in the exercise of this office for 12 years; and declining that of a preacher, he devoted himself entirely to the study of the scriptures and ecclesiastical history, and was created a doctor of the Sorbonne in 1675. By Colbert, the minister, with whose esteem he was honoured, he was introduced to his son, who was afterwards archbishop of Roan; and in this connection he enjoyed the advantage of those conferences that were held in an assembly of persons of the most distinguished learning, formed by the minister for the improvement of his son. These conferences led him to conceive the design of writing an ecclesiastical history. The first volume of this work, which he executed with great ability, and which was intitled, "Selecit Hitoriae Ecclesiasticae capita, et in loca ejusdem insignia Dissertationes Historiae Chronologicae, Dogmatice," was published in 1676. It consists of 26 volumes in 8vo, the last four of which were not published till 1686. In the first volume he gives a history of the first age of the church, with an account of the persecutions which it suffered, the succession of popes, the heresies which arose, and the councils which condemned them, the writers in favour of Christianity, and the kings and emperors who reigned during the
the first century. To this volume are annexed 28 valuable and much esteemed dissertations, upon such points as have been the subjects of dispute in history, chronology, criticism, or doctrine. The history of the second century was published in 1677 in two volumes, and to it are subjoined the dissertation against M. Daille, with regard to fasting, lent, confirmation, and the use of the fathers; and another dissertation concerning the time of celebrating Easter; and he also treats of the version of the Septuagint, &c. &c. The third century was published in 1678; and in three dissertations he has collected what relates to the life, manners, ordination, fall, errors, and defenders of St. Cyprian. The history of the fourth century, compiled in three volumes, and containing 25 dissertations, was printed at Paris in 1679. In the three following years he published his history of the 5th, 6th, 7th, 8th, 9th, and 10th centuries; and that of the 11th and 12th centuries in 1683; and in these volumes there are several excellent dissertations. His sentiments on the subjects of some of these dissertations exposed him to the resentment of the court of Rome, which induced him to publish his writings in 1684. Nevertheless, he published in the same year, in three volumes, the history of the 13th and 14th centuries, in which he defended the rights of kings against the pretensions of the court, though he vindicates those princes who employed fire and sword against the Albigenses. He at last completed this work in 1686, by publishing four volumes, containing the history of the 15th and 16th centuries. The history of the Council of Trent occupies the greatest part of the last volume. Of this voluminous work, containing many curious particulars, there have been many editions. In 1689 he published a work of the same kind upon the Old Testament, in six volumes in 8vo, which extends from the creation of the world to the birth of Christ, and which period he has divided into six ages. From 1678 to 1680 he also published several other dissertations. In 1689 our author published his "Theologia Dogmatica et Moralis secundum Ordinem Catholici Concilii Tridentini, in quinque libros tributam," i.e., "Polite and moral Divinity, according to the order of the Council of the Council of Trent, in five books;" printed at Paris in ten volumes in 8vo. and at Venice in 1698. But another volume having been added in 1701, this work was printed at Paris, in two volumes in folio, in 1703, with a collection of Latin letters. He also published, in 1704, Commentaries on the four Gospels; in 1710, upon St. Paul's and the seven Canonical Epistles; and he also wrote a Commentary upon the Prophets Isaiah, Jeremiah, and Baruch, which was never printed; and he likewise published several other treatises, which we shall not recite. His application, as we may naturally conceive, was intense; and towards the latter part of his life he was afflicted with the los of his sight, which he bore with great calmness and resignation. He died in 1724, in the 86th year of his age. His piety, humility, and disinterestedness rendered him the object of general esteem. Gen. Dict.

Alexander, of Paris, a French poet, flourished in the 12th century, and was born at Bernai, in Normandy. He removed to Paris, and became, in some measure, the founder of French poetry. He adopted verses of 12 syllables, as well adapted to heroic subjects. His poem of "Alexander the Great," was favourably received in the court of Philip Augustus: it is a sort of metrical version of a life of Alexander then current, intermixed with facts alluding to the history of France at that period. The metre of some passages is strong, and the verification harmonious. Some have supposed that the name of Alexandrines, applied to lines of 12 syllables, has been taken from this work, in reference either to its author or to its object. Gen. Biog.
peer of that kingdom, by the title of Viscount Stirling. In 1632 he was raised to the dignity of Earl of Stirling, at his Majesty's coronation, in the palace of Holyrood-house. He discharged the office of secretary of state with great reputation till his death, in 1640. About three years before his death was published a new edition of his poems, viz. "The Four Monarchick Tragedies," "Dooms-day," "The Parnassus," and "Jonathan," an heroic poem, which was now first published. The style and verisimilitude, particularly of the plays, are polished, and the plans, as far as the subjects are concerned, improved. The author's tragedies and other poems were well received at the time of their first publication. King James called the author his "Philosophical Poet," and Michael Drayton commends them; calls the author "My Alexander," and wishes to be known as the friend of a writer, "whose muse was like his mind;" and John Davies of Hereford, in a book of epigrams, published about the year 1661, praises the tragedies of the author; and says, "that Alexander the Great had not gained more glory with his sword than this Alexander had gained by his pen." Mr. Addington, after perusing the several works of the author, testified his approbation of them, by saying, "That he had read them over with the greatest satisfaction." "They compose," says a biographer of unquestionable judgment, "a very respectable portion of the literature of that age; though their gravity and proximity are not much suited to the taste of the present." It does not appear that his plays were ever acted. They are rather dramatic poems for perusal in the closet.


Alexander Nucam, or Nequam, an eminent English writer of the 12th and 13th centuries, was born at St. Alban's, in Hertfordshire, and pursued his studies, with successful affluence, in the universities of Italy and France. At Paris he was esteemed a prodigy of genius and learning; and applauded as an excellent philosopher, a profound divine, and a good rhetorician and poet, considering the age in which he lived. His school at Paris, where he read lectures in 1180, was thronged with scholars. About the year 1180 he returned to England; and, having become a canon-regular of the order of St. Augustin, he was made abbot of Exeter in 1215, and died in 1227. His epitaph, written after the old mofhik manner, in Latin rhyme, is as follows:

"Eclipat inaptur sapientiam, Sol fepelitur; 
Cui si par unus, minus eft fihile famus: 
Vir bene difcere, et in omnii mai fecutus, 
Difcebat Nequam, vitam duxit tanum sequam."

The sense is this:

"Learning's eclipse, the Sun himself's obfcur'd; 
Our foos were left, he had left one superior: 
Accomplished was his mind, his manners pleasing, 
And though his name was ill, his life was good."

He wrote several works, which are preserved in MS. in the libraries of England and other countries; such as "Comentaria super quatuor Evangelia;" "Expositio super Ecclesiasten;" "Expositio super Cantica;" "Elucidarium Bibliothecae," in which are some expressions inconsistent with the doctrine of transubstantiation; "Laudes divinae Sapientiae," which is the fame with the work, "De Naturis rerum;" and contains, amongst a variety of other matter, a large account of the three cities most celebrated for learning, Athens, Rome, and Paris. Gen. Dict. Cave. H. L. tom. ii. p. 286.

Alexander I. king of Scotland, was the son of Malcolm III., and succeeded his brother Edgar in 1107. His character was distinguished by a degree of vigour and impec- tuosity, which gave him the appellation of "the fierce;" and which, though previously concealed by his pious and devotion, discovered themselves on his accession to the throne. His conduct both in the northern and southern parts of the kingdom was so feverish, that he owed the insurrections into submission; but a conspiracy was at length formed against his life, and the traitors, who were engaged in the execution of it, obtained admission into his bed-chamber at night, whilst he lodged at a castle in the Carle of Gowrie. Alexander, after having killed six of them, made his escape. Having reduced his own kingdom to order, he visited his brother-in-law Henry I. of England, and assailed him in terminating a difference between him and the Welsh. He cloe'd his reign in enacting and enforcing civil and ecclesiastical regulations, did a bachelor in the 17th year of it, and was succeeded by his younger brother, David. Mod. Un. Hist. vol. xii. p. 45.

Alexander II., king of Scotland, succeeded his father William the Lion, in 1214, in his 16th year. His attempt to recover the possession of Northumberland was retaliated by a deterrent expedition into Scotland, conducted by John, king of England. Whilst John was thus employed, Alexander reduced Northumberland; and, being forced to discontinue his pursuit of the English king, who was burning the towns, ravaging the country, and advancing towards the capital, he entered England by the way of Carlisle, which he took and fortified, and proceeded as far as Richmond, in Yorkshire, retaliating upon the adherents of John severities similar to those which his own subjects had suffered. But his proffes was impeded, and he was compelled to return through Wiltmorland to his own kingdom.

In 1221, he married the princess Joan, eldest sister of Henry III. of England, who contributed to preserve peace between the two kingdoms. After her death in 1239, they were again embroiled; but by the mediation of the earl of Cornwall, Henry's brother, and the archbishop of York, they were again reconciled. Alexander, in his voyage to quell some commotions that were excited in Argyllshire, fell sick, and being put on shore on an island called Kennercy, on that coast, died, in the 51st year of his age, and 35th of his reign. His successor was his son by his second queen, the daughter of Egelrand de Coeyne, one of the most powerful of the French nobility. Mod. Un. Hist. vol. xii. p. 77.

Alexander III. of Scotland, was son of the preceding, and succeeded his father at the age of nine years, in 1249. His marriage with Margaret, the daughter of Henry III. of England, was soon after solemnized in the presence of the two courts at York. On this occasion Alexander paid homage to Henry for his English possessions; and, on being prevailed to perform his homage for the crown of Scotland, he declined it. Alexander, upon his return to Scotland, found that the Cummins, a family of very great influence, had formed a strong party against his English connections, under the plea that Scotland was never any better than a province of England; and both the king and queen were committed to close custody in the castle of Edinburgh, where they were debarred from seeing any company, or associating with each other, and prohibited from all concern in the government. When Henry heard of their situation, he determined to relieve them, and for this purpose assembled his military tenants at York, and marched to the borders; and by his emissaries, whom he dispatched to the castle of Edinburgh, released the royal pair, and afterwards dispossessed the intruders. The king then assumed the exerise of the regal power; and, as soon as he was of age, pardoned the Cummins and their adherents, upon their submitting to his authority.
authority. However, in 1263, Haquin, king of Norway, appeared on the coast with a fleet of 160 ships, to make good his pretensions to the Western Islands; and, disembarking his troops, made himself master of the castle of Ayr, and advanced into the country. Alexander, having assembled an army, met him at a place called Largs; and, after a long and doubtful contest, the Scots army was victorious. Of the Norwegians, 16,000 are said to have perished in the field, and the Scots lost 5000. The ships of Haquin were so much wrecked the day after the battle, that he could scarcely procure a vessel to carry him and a few friends to the Orkneys, where he soon after died of grief. His son and successor, Magnus, concluded a treaty with Alexander; and, in consideration of his receiving 1000 marks of silver in two years, and an annual payment of 100 marks for ever after, renounced all claim to those islands. As a further cement of friendship, Margaret, Alexander's daughter, was betrothed to Eric, the son and heir of Magnus. In 1256, Alexander and his queen repaired to the English court, where they were sumptuously entertained; and when the queen was delivered, they both returned to their own kingdom. During the war between Henry and his barons, Alexander assisted him with 5000 men, and preferred the northern fortresses against all their attempts. Upon the accession of Edward 1. to the throne of England, Alexander, with his family, was present at his coronation, and soon after paid him homage for his English estates. In the parliament, held at Westminster in 1282, Alexander attended as the first peer of England. In 1283 he left his son Alexander, in the 26th year of his age; and his death was soon followed by that of his father, the queen of Norway, who left an only daughter.

Alexander, having no surviving issue besides this infant prince, was urged by the nobility and the states of the kingdom to marry; and in compliance with this request, he was married to Isabella, daughter to the Court of Dreux in France. This excellent prince was soon after killed, whilst he was hunting, by his horse's rushing down a high precipice, A.D. 1285, in the 45th year of his age, and the 37th of his reign. He was succeeded by Margaret, his grand-daughter, and heir of his crown, who did not long survive him. Scotland was now in a very critical state. Edward 1. was acquiring an influence in the kingdom, which no other English monarch ever possessed, and revived the claim of sovereignty, to which his father Henry had never pretended. The death of Alexander was, therefore, much regretted; and the services he had performed to the kingdom demanded a tribute of respect to his memory. He had introduced many excellent regulations of government; he had divided the kingdom into parts, in each of which he occasionally resided, with a view of preserving the public peace, and for the purpose of more easily administering justice to all ranks of people; and he had greatly contributed to diminish the burdens of the feudal system, and to restrain the licence and oppressions of the nobility. The death of Alexander III. forms a remarkable era in the Scottish history. Mod. Un. Hist. vol. xii. p. 79, &c.

Alexander, king of Poland, was a younger son of Casimir, and as duke of Lithuania, elected from motives of policy to succeed Albert in 1501. The archbishop of Gnesen resided for some time in affiling at his coronation; and absolutely refused to concur in the ceremony for his queen, the princess of Muscovy, because she adhered to the doctrines of the Greek church. This indignity was redressed by her father, who, in consequence of it, laid siege to Smolensko, but, upon the arrival of Alexander, relinquished the enterprise, and concluded a truce for six years. The fatigue of this expedition so much affected Alexander, that he fell into a chronic disorder, which only terminated with his life. During his illness, the Moldavians and Tartars made an irruption into Lithuania; and Alexander was carried in a litter, at the head of his army, to oppose them. The two armies met near Wilna, and after a fierce contest, in which 20,000 Tartars fell, the Poles were victorious. Alexander received the news of this victory whilst he was dying; and, making signs to express his gratitude, he expired in 1501, at the age of 45, after a reign of five years in Poland, and 14. in Lithuania. In his nature he was short and robust; his figure was long, his eyes sparkling, and his carriage majestic. His genius was heavy, his taciturnity very remarkable, but his sentiments were generous and humane. He was a great patron of the liberal arts, and profuse in his grants under this character, and particularly to musicians; so that his donations were revoked, and a law was passed, called Statutum Alexandrinum, which prohibited the king from disposing of the revenue without the consent of the senate or diet. Mod. Un. Hist. vol. xxx. p. 410.

Alexander Nefsky, or Nefsky, grand duke of Russia, both a saint and hero of that country, was born in 1218, and distinguished by his strength and courage, and by the vigour of his character. He was betimes inspired with a passion for conquest by the inconstant wars in which his father Yuriolof was engaged with the Tartars and Mongols. Upon the death of Fedor, his elder brother, he became sole viceroy of Novogorod. He married a princess of the province of Polotze; and for the purpose of defending his government against the attacks of the Tchudes or Ethonians, he drew a line of forts along the river Shelon, which falls into the Ilmen lake. While Yorololf was engaged with the Tartars in 1239, a combined army of Swedes, Danes, and knights of the Teutonic Order, formed an expedition against Novogorod, and landed from their ships on the banks of the Neva. Alexander, after receiving a haughty embassy, determined to risk the event of a battle. Having im pondered the affidavit of heaven in the presence of his people, he prepared for an engagement. The attack was begun at fix in the morning, and the two armies were closely engaged during the whole day. When night put an end to the contest, the field of battle was covered with the bodies of the slain. This battle, in which Alexander is said to have wounded with his own sword the king of the northern nations, is embellished with a variety of fictions; but the event of it was highly honourable to the courage and success of the young prince. From the river Neva, near which the battle was fought, he obtained the surname of Nevelot. The remainder of his life was employed in exertions of valour and activity against the invaders of his country. He defeated the Tartars in several contests. In 1245 he raised the siege of Novogorod, and gained a victory over the Germans, Danes, and Tchudes, on the borders of the Ilmen lake. After his father's death he paid a visit to the Tartar khan, who acknowledged, that though he had heard much to his praise, he far exceeded everything that had been reported concerning him. In 1252, upon his return from a second visit to the khan, he ascended the throne as grand prince of Vladimir. With a very considerable force he now undertook an expedition against Sweden, and coming off victorious, he fo far conformed to the then submitting practice of war, as to raise all the countries which he had captured, and returned to Russia with a multitude of prisoners, and heaps of spoil. On occasion of a difference which happened between the Russians, and particularly the inhabitants of Novogorod, and the Tartars, with respect to the humiliating and burdensome tribute which was exacted by the latter, Alexander, in 1258, attempted to pacify the discontented, and to induce them
them to submit, without resistance, to a superior power. In order to give effect to his conciliatory endeavours, he took the national payment on himself, and thus acquired the complacency of the Novgorodians as well as of the Tartars. But discontent continuing to prevail, and resistance having arisen to a degree so alarming in several places, that the Tartarian collectors were musered; the Tartars were excessively exasperated against the Russians, and the Russian princes were commanded to appear before the khan. Alexander undertook the hazardous business of attempting, by a personal interview, to avert the khan's wrath on account of the murder of his deputies. After a delay of twelve months he at last succeeded, and obtained a promise that the khan would forgive what had happened, and forego his purpose of raising an army; and in his return home he died suddenly at Gorodetz, in the year 1262, with circumstances that render it extremely probable, that in the camp of the khan poison had been administered to him shortly before his departure. For his various and signal services, and acts of valour, which in those days were deemed miraculous, the grateful admiration of his countrymen raised him to the rank of one of the national saints. Peter the Great, availing himself of the vexation that was paid to the memory of this distinguished hero, founded, in 1712, a monastery near his new city of Peterburgh, on the spot which was reported to have been the scene of Alexander's victory; and in 1723 he caused the bones of the great duke to be brought thither. This monastery has been gradually enlarged by severai sovereigns since the time of Peter; and the late emperior has built a magnificent church within its walls, and a sumptuous mausoleum for himself and his descendants. The shrine of the saint, which was caused to be made by Elizabeth, is of maffy silver. The order of knighthood of St. Alexander Nevskii was instituted by Peter the Great in 1722; but as he died before the knights were appointed, this was done by Catherine I. in June 1725. The badge of this order is a golden eight-pointed star, enamelled with red, with the figure of St. Alexander in armour on horseback. At the four corners of the cross are as many gold spread-eagles, crowned. A broad, deep red, watered ribbon is worn over the left shoulder; the motto is in Russian characters, signifying, "For labour and patriotism." The feast is held on the 30th of August. The monarch and the knights attend masses at Kazan church, and go a pilgrimage on foot to the monastery of the saint, at the distance of three versts, and attend masses again before his silver shrine, and then return to the winter palace, where they partake of a sumptuous dinner, under a discharge of cannon. In 1790 the number of knights amounted to 122. Tooke's Life of Cath. II. vol. ii. p. 373. Cox's Travels into Russia.

ALEXANDERS, in Botany. See Smyrnium.

ALEXANDRIA, Mons, in Ancient Geography, a mountain of Mytil, on the sea-coast, forming a part of Mount Ida, where Paris pronounced judgment on the three goddesses, Strabo. 

ALEXANDRETTA, now called Scandrean by the Turks, in Geography, is the port of Aleppo in Syria, and situated in the gulf of Ajasza, near the sea coast. N. lat. 36° 32' 10'. E. long. 36° 26'. Its nearest distance from Aleppo, in a straight line, is between 60 and 70 miles; but the usual road for caravans, through Antioch, is computed to be between 90 and 100 miles.

Ancient and modern travellers, from Maryton and Teixiera to Volney, concur in representing the wretched condition of this village, which owes its existence, as the habitation of human beings, to its being the port and road that lead to Aleppo. In this road vessels anchor on a solid bot-
tiful harbour formed by the Isle of Pharos, about 12 miles west of the Canopic branch of the Nile, in N. lat. 31° 10'. and E. long. 30° 19'. It is probable, says a popular historian, that the opposition and efforts of the republic of Tyre, which gave Alexander to long and to sever a check in the career of his victories, led him to perceive the vast resources of a maritime power, and suggested to him the idea of the immense wealth which the Tyrians derived from their commerce, especially that with the East Indies. As soon, therefore, as he had accomplished the destruction of Tyre, and reduced Egypt to submission, he formed the plan of rendering the empire, which he designed to establish, the centre of commerce as well as the seat of dominion. With this view he founded a great city, which he honoured with his own name, near one of the mouths of the river Nile, that by the Mediterranean sea and the vicinity of the Arabian gulf, it might command the trade of both the east and west. He had no sooner conceived the design than he hastened to execute it. Accordingly he himself drew the plan of the intended city, and fixed upon several places where the temples and public squares were to be erected. It is said, that as there were no instruments at hand proper for this purpose, a quantity of meal was scattered over the ground, and that thus the circuit of the walls was marked out: and it is added that Aristan-der, the king's footsore, interpreted this new mode of determining the site of the walls as a presage of the abundance which would distinguish the city. The situation of Alexandria, it must be allowed, was selected with such discernment, that it soon became the chief commercial city in the world; and in this respect the design of its founder was fully accomplished. During the subduence of the Grecian empire in Egypt and in the east, and amidst all the successive revolutions in those countries, through a period of about 1800 years, from the time of the Ptolemies to the discovery of the navigation by the Cape of Good Hope, commerce, particularly that of the East Indies, continued to flow in the channel, which the sagacity and foresight of Alexander had prepared. Although some part of the Indian commerce was conducted by means of the river Oxus and the city of Saurasia into the Caspian sea, and thence by land to Trape- zond, and passing to the Euxine and other neighbouring seas, centered in the city of Corinth; yet a considerable part of it, especially such as was carried on at the coast of Malabar and in the Persian gulf, came up the Red Sea; and goods which were landed at Elam, now Suez, were conveyed over land to the Nile, and then by water to Alexandria.

This city, says a modern traveller, was a league and a half long by one-third in breadth, which made the circumference of its walls about four leagues. Quintus Curtius (lib. iv. c. 8. tom. i. p. 22.) makes them 80 stadia, or a little more than nine miles. According to Pliny (H. N. lib. v. c. 10. tom. i. p. 258.) they were 15 miles. Strabo (lib. xvi. tom. ii. p. 1143.) makes the length of the city 30 stadia, and the breadth between seven and eight stadia; and Diodorus Siculus (lib. xvi. tom. ii. p. 319.) Ed. Welfel, makes the circuit 6 stadia, or somewhat more than 11 miles; and he says, that the city was peopled by 300,000 free inhabitants, besides at least an equal number of slaves. The Lake Mareotic bathed its walls on the north, and the Mediterranean on the north. It was intersected lengthwise by straight parallel streets. This direction left a free passage to the northerly wind, which alone conveys coolness and salubrity into Egypt. A street two thousand feet wide began at the gate of the sea, and terminated at the gate of Canopus. It was decorated by magnificent houses, by temples, and by public buildings. In this extensive range the eye was never tired with admiring the marble, the porphyry, and the obelisks, which were defined at some future day to embellish Rome and Constantinople. This street, the handomest in the universe, was intersected by another of the same breadth, which formed a square, at their juncture, half a league in circumference. From the middle of this great place the two gates were to be seen at once, and vessels arriving under full sail from the north and from the south. A mole of a mile in length, called Hept Stadium, stretched from the continent to the Isle of Pharos, and divided the great harbour into two. That which is to the northward preferred the name of the founder, and was called the Great Port. A dyke, drawn from the island to the rock on which Pharos was built, secured it from the westerly winds. The other was called Eunopylos, or the Safe Return. The former is called at present the New, and is the port to which the vessels of Europe resort; the latter is the Old Harbour, and is to that which those only from Turkey are admitted: a bridge that joins the mole to the city served for a communication between them. It was raised on lofty piers sunk into the sea, and left a free passage for the ships. The palace, which advanced beyond the promontory of Lochius, extended as far as the dyke, and occupied more than a quarter (a third or fourth, says Strabo), of the city. Each of the Ptolemies added to its magnificence. It contained within its inclosure the museum, an asylum for learned men, groves and buildings worthy of royal majesty, and a temple where the body of Alexander was deposited in a golden coffin. Pericles, it is said, undertook to convey the body of Alexander to the temple of Jupiter Ammon, agreeably to the will of that prince; but Ptolemy, son of Lagus, carried it off, and placed it in the palace of Alexandria. The infamous Seleucus Cibyrotactus violated this monument, carried off the golden coffin, and put a glass one in its place. In the great harbour was the little island of Anti-Rhodes, where a theatre and a royal place of residence. Within the harbour of Eunopylos was a smaller one, called Kibotos, or Cibotus, q. d. the harbour of the arch, dug by the hand of man, which communicated with the Lake Mareotic by a canal. Between this channel and the palace was the admirable temple of Serapis, and that of Neptune, near the great place where the market was held. Alexandria extended likewise along the southern banks of the lake. Its eastern part presented to view the Gymnasium, with its porticoes more than 600 feet long, supported by several rows of marble pillars. Without the gate of Canopus was a spacious circus for the chariot races. Beyond that the suburb of Nicaeopolis ran along the sea-shore, and seemed a second Alexandria. A superb amphitheatre was built there, with a race-ground, for the celebration of the Quinquennalia, or feasts that were celebrated every fifth year. Such is the description, says Savary, (Letters on Egypt, vol. i. p. 29.) left us of Alexandria by the ancients, and above all by Strabo.

This famous city, second only to Rome itself, was built by Dinocrates, a celebrated architect, who acquired great reputation by rebuilding the temple of Diana at Ephesus, which Herodes had burnt.

Alexandria owed much of its celebrity as well as of its population to the Ptolemies. Ptolemy Soter, one of Alexander's captains, who, after the death of this monarch, was first governor of Egypt, and afterwards assumed the title of king, made this city the place of his residence, about 300 years before Christ. This prince founded an academy, called the Museum, in which a society of learned men devoted themselves to philosophical studies, and the improvement of all the other sciences; and he also gave them a library, which was prodigiously increased by its successors. He likewise induced the merchants of Syria and Greece to reside in this city, and to make it a principal mart of their commerce.
commerce. His son and successor, Ptolemy Philadelphus, pursued the designs of his father, and completed the tower of Pharos, brought the rock of the god Serapis from Egypt, and erected the famous temple of Serapis, and improved the Alexandrian Library. He also continued the canal projected and begun by Neco, and carried on by Darius Hystaspis, which was intended for joining the Nile to the Red Sea, and had the glory of completing it. Ptolemy Euergetes instituted the example of his predecessors, encouraged trade, and contributed to the wealth of Alexandria, and the prosperity of the kingd. m. But the influence that was thus produced occasioned luxury and licentiousness, so that the voluptuaries of Alexandria became proverbial:

"Ne Alexandria virum permitte dulciter." Quinctilian.

For about 350 years, from the commencement of the reign of Ptolemy Soter to the death of Cleopatra, Alexandria continued in subjection to the Ptolemies; but most of them devoted themselves to various kinds of indulgence and pleasure, became effeminate and dandily, and by their example contributed to that corruption and relaxation, which prevailed among their subjects, and ultimately terminated in the ruin of this famous city. Ptolemy Philometor, in particular, was a monster of vice and cruelty. About the year B.C. 156, he put to death or banished most of those persons who had been in favour with his brother Philometor, and who had been employed during his reign, and permitted his foreign troops to plunder and massacre at discretion. Many of the inhabitants of Alexandria, terrified by his savage conduct, and in order to avoid his cruelty, retired into foreign countries, and left the city almost a desert. Of these there were grammarians, philosophers, geometers, physicians, philosophers, and other matters in the liberal sciences, who disseminated the polite arts and general science through Greece, Asia Minor, and the islands, and indeed to every place whither they fled. In order to supply the places of these fugitives, Ptolemy enjoined proclamations to be made in all the neighbouring countries, that persons of any nation, who were distressed of settling at Alexandria, should receive suitable encouragement. The proposal was accepted by many, and the houses and privileges which belonged to the former inhabitants were allotted to these new settlers, and thus the city was repopulated. About this time Scipio Africanus the younger, and other Romans, were deputed on an embassy to Alexandria; and Justin says of him, that whilst he visited and conferred with curiosity the rarities of Alexandria, he was himself a sight to the whole city; "Dum infpiciat urbem, sisset cubiculo Alexandrinsium fuit," so different were his aspect and manners from those of the Alexandrians. The new inhabitants, whom Ptolemy had invited into the city, soon found reason to dislike their situation, and to hate their new sovereign. Cruel and timid as he was, he determined to massacre all the young men of the city; and for this purpose he caused the Gymnæum, or place of exercise in which they were assembled, to be invaded by his foreign troops, and put them all to the sword.

When Julius Caesar, B.C. 48, in his pursuit of Pompey, landed at Alexandria, he found the city in great commotion, without law and without government. Having arbitrated between Ptolemy XII. and Cleopatra, and decreed that they should reign jointly in Egypt, Pothinus inflamed the Alexandrians to rebel the decree, and to concur in driving Caesar out of the city. Accordingly he brought 20,000 troops to effect his purpose, but Caesar supported the attack; and in order to prevent any injury from their flet, to which they next had recourse, he caust it to be set on fire, and plundered himself of the tower of Pharos, which he Garrisou. Some of the vessels that were on fire came so near, that the flames caught the houses adjoining to the quay, and spread through that quarter of the city, which was called Bruchion, and destroyed the library that was placed there, consisting of 300,000 volumes. In a decisive battle with the whole army of Ptolemy, Caesar, assisted by a considerable body of Jews, obtained a complete victory. Ptolemy, in endeavouring to make his escape in a boat, was drowned in the Nile; and Caesar returned to Alexandria, which, together with the whole of Egypt, submitted to the victor. Before he left this city, he confirmed all the privileges which the Jews enjoyed, in gratitude to them for their assistance, and ordered a column to be erected, in which these privileges were engraved, with the decree that confirmed them. The emperor Caligula was inclined to favour the Alexandrians, because they manifested a readiness to confer divine honours on him; and conceived the horrid design of massacring the chief senators and knights of Rome, A.D. 40, and then of abandoning the city, and of settling at Alexandria. At this time the Jews who inhabited this city, and who had continued to enjoy the privileges of citizens, granted to them by Alexander, under the Ptolemies, and who had obtained a confirmation of them from Julius Caesar, became obnoxious to the Alexandrians. Their number, as they occupied two parts in five of the city, and amounted in the whole of Egypt to a million, and also the prerogatives that enfranchised them, excited envy and jealousy, and their fellow-citizens wanted only a pretence for destroying them. They had been for some time restrained from doing them injury; but under the government of Flaccus, A.D. 40, who permitted the statues of Caesar to be set up in the oratories of the Jews, they were grievously oppressed. He took occasion, in consequence of some diffusions and seditions that occurred, to publish a decree, by which, without offering them a hearing, they were declared strangers in Alexandria; and he also restricted them to one of the five districts into which the city was divided; and their houses, which they were compelled to abandon, were plundered, whilst, destitute of any settled abode, they were obliged to wander about the fields and the sea-shore, without shelter, property, and even the means of subsistence. Those who fell into the hands of their enemies were tortured in the most cruel manner, and destroyed by a lingering and painful death. The streets, market-places, and theatres were defiled with blood; neither sex nor age was distinguished; and none of them was spared. This writer affirms no other cause for these barbarities than the rage and fury of the Alexandrians. When Flaccus was recalled, the Jews obtained some reprieve; but they were soon alarmed by the order of Caius to have his own statue set up in the temple of Jerusalem. In the mean while they sent a deputation to the emperor, at the head of which was Philo, to petition the restoration of their citizenship and their oratories. Before the object of their embassy was settled, Caius died; and Claudius declared in favour of the Jews, whom he re-established in the possession of all the privileges they had enjoyed in Alexandria from the time of the foundation of that city. When Adrian visited Egypt, A.D. 130, he expressed a great desire of the inhabitants of Alexandria in parti. A letter written from thence, and addressed to the Confu Servian, he says, "the city of Alexandria is rich and powerful, with great trade, which produces plenty. Nobody is idle there; some blow glafs, others make paper; many are employed about linen and making of cloths: all have some trade. All, whether Jews or Christians, acknowledge but one God, their interest. I wish that this city, by its grandeur and riches, the first of all Egypt, was furnished with better inhabitants."

Nothing
Nothing equals their ingratitude; I have granted them every thing they could desire; I have restored their ancient privileges; I have given them new ones; in consequence of this they were grateful to me when present; but I had scarcely turned my back when they insolently attacked my son Verus, and I believe you know what they have said of Antoninus, &c. &c. &c."

For Nero the Alexandrians built baths in the city, when they expected a visit from him in his way to Egypt; and bequeathed Cæcina Tufcus, the son of his nurse, whom he had made prefect of Egypt, pretended to make use of them, he was condemned to banishment. To Alexandria belonged the honour of being the first place where Vespasian was acknowledged and proclaimed, A. D. 69, and the emperor remained there whilst his generals and armies were fighting against Vitellius; and though he came hither for the purpose of starving Italy, by preventing its supplies of foreign corn, yet as soon as he heard of the death of Vitellius, and that Rome had submitted, the bell flaps of Alexandria were immediately laden with corn, and ordered to fail for their supply. Whilfit Vespasian continued in this city, he received ambassadors from the Vologeses, who offered him 40,000 Parthian horse; but peace was then restored to the Roman empire. During his stay in this place he was no favourite with the Alexandrians. They were fond of pomp and magnificence, and Vespasian loved simplicity. They had flattered themselves with the hopes of receiving a gratification, because they had been the first who acknowledged him for emperor; but on the contrary they were harassed with importunities, either new, or levied with uncommon rigour. The Alexandrians revenged themselves with snares and falsehoods, calling him Cypiofactes, a name which they had formerly given to one of their kings, who was cowardly and avaricious; but heaven, if we credit some Pagan writers, distinguished him by miracles. The emperor Severus, in his visit to Egypt, A. D. 202, granted the Alexandrians a council, the members of which had the title and privileges of senators, and suffrages in the administration of public affairs, and thus mitigated the rigour of the despotic government of the prefect instituted by Augustus. He also changed several laws in their favour; and they erected a column as a monument of their gratitude, called by Abulfeda the Pillar of Severus. It has already appeared that the Alexandrians were inclined to be fastidious, and that they deferved the character given to them by Herodotus, who says, that they loved to be merry at the expense even of their princes. In the case of Caracalla, whose vanity they ridiculed, because, though he was of small stature, deformed, and deformed of every kind of military merit, he had compared himself to Achilles and to Alexander, their railery was productive of very serious consequences. Whilfit the Alexandrians were preparing to receive him with joy and magnificence, when he visited the temple of Serapis, and the tomb of Alexander, he was meditating cruel retaliation. In the midst of peace, and on the slightest provocation, he inflicted his commands for a general massacre, A. D. 215. From a secure part of the temple of Serapis, he viewed and directed the slaughter of many thousand citizens, as well as strangers, without distinguishing either the number or the crime of the sufferers; since, as he coolly informed the senate, all the Alexandrians, those who had perished and those who had escaped, were alike guilty. Dion. (lib. xlvii. p. 1307.) represents it as a cruel massacre; Herodian (lib. iv. p. 155.) says, that it was also pernicious. The massacre was accompanied with the plunder both of temples and houses; and all strangers, except merchants, were driven from the city. The societies of learned men, who were maintained in the Museum, were abolished; and the different quarters of the city were separated from each other by walls and towers to prevent all communication between them. However, this defolation was but a temporary evil; for Caracalla being soon after killed, Alexandria recovered its splendour by its own resources, and soon became again the second city of the empire. Under the reign of Gallienus, Âmilian, who had been prefect of Egypt for some time, assumed the imperial purple, on occasion of a violent faction, which terminated in a ruinous war. All communication between the different quarters of Alexandria was cut off, and it was easier, says St. Dionysius, to go from one end of the world to the other than from Alexandria to Alexandria. The streets were filled with blood, and the dead bodies putrified, and, by their infection, brought on the plague. Âmilian, in vain, endeavored to appease the people. They were exasperated against him, and attacked him with stones and darts; upon which, in order to avert the imminent danger that threatened him, he declared himself emperor. The soldiers and the people, happy in the prospect of being relieved from the yoke of Gallienus, acknowledged his sovereign authority. At length he was attacked and defeated by Theodotus, the minister of Gallienus's vengeance. Upon this he retired to the Bruchium, a quarter of Alexandria, and sustained a siege, in which St. Anastasius and St. Eusebius, intimate friends, and afterwards bishops of Laodicea, were admired for their ingenuous charity in comforting and relieving the unhappy beggars, who perished with hunger. Anatolius was shut up in Bruchium, and Eusebius remained with the Romans. The former, moved with compassion to the wants and misery of the besieged, applied to the latter in order to obtain amity for those who should leave the garrison and surrender themselves. Having succeeded in his application, he immediately proposed surrendering the place, and making peace with the besiegers. The answer was, that no peace should be made. Anatolius then proposed, that all who were of no service should leave the place in disgrace, and they were kindly received and feasonably supplied by Eusebius. Âmilian was afterwards taken by Theodotus and sent to Gallienus, who ordered him to be strangled in prison. The various misfortunes that befell Alexandria fo depopulated this great city, that, after these calamities, the number of its inhabitants, from four to four score years of age, was not equal to that which had been usually reckoned before of those who were between 40 and 70. This difference was known by the registers that were kept for the gratuitous distribution of corn. Eusebius, Eccl. Hist. vii. 21. Diocletian, A. D. 296, marched against Achilles, who had usurped the government of Egypt; and, having driven him to Alexandria, besieged the city, cut off the aqueducts which conveyed the waters of the Nile into every quarter of that immense city, and rendering his camp impregnable to the garrisons of the besieged multitude, he pushed his reiterated attacks with caution and vigour. After a siege of eight months, Alexandria, waited by the sword and by fire, implored the clemency of the conqueror, but it experienced the full extent of his severity. Many thousands of the citizens perished in a promiscuous slaughter, and there were few obnoxious persons in Egypt, who escaped a sentence either of death, or at least of exile. Eutropius, ix. 24. Orosius (vii. 25.) says, that he gave up the city to be plundered. As an apology for the severity of this emperor, it has been alleged that the seditions of Alexandria had often affected the tranquility and subsistence of Rome itself, and that his severity was counterbalanced by futile regulations.
of corn brought from Alexandria; and he employed the Alexandria fleet in virtually New Rome, as it was called, leaving to Old Rome only that of Africa. Socrat. ii. 13. Alexandria suffered in common with other places by the violent and destructive earthquake which shook the greatest part of the Roman empire, July 21st, A.D. 365; and this city annually commemorated this fatal day when 50,000 persons had lost their lives in the inundation.

It was in Alexandria chiefly that the Grecian philosophy was engrafted upon the stock of ancient oriental wildness. The Egyptian method of teaching by allegory was peculiarly favourable to such an union: and we may well suppose that when Alexander, in order to preserve by the arts of peace that extensive empire, which he had obtained by the force of arms, endeavoured to incorporate the customs of the Greeks with those of the Persian, Indian, and other eastern nations, the opinions as well as the manners of this feeble and obsequious race would, in a great measure, be accommodated to those of their conquerors. This influence of the Grecian upon the oriental philosophy continued long after the time of Alexander, and was one principal occasion of the confusion of opinions which occurs in the history of the Alexandrian and Christian schools. Alexander, when he built the city of Alexandria, with a determination to make it the seat of his empire, and peopled it with emigrants from various countries, opened a new mart of philosophy, which emulated the fame of Athens itself. A general indulgence was granted to the promiscuous crowd assembled in this rising city, whether Egyptians, Grecians, Jews, or others, to profess their respective systems of philosophy without molestation. The consequence was, that Egypt was soon filled with religious and philosophical sects of every kind; and particularly, that almost every Grecian felt found an advocate and professor in Alexandria. The family of the Ptolemies, as we have seen, who after Alexander obtained the government of Egypt, from motives of policy, encouraged this new establishment. Ptolemy Lagus, who had obtained the crown of Egypt by usurpation, was particularly careful to secure the interest of the Greeks in his favour, and with this view invited people from every part of Greece to settle in Egypt, and removed the schools of Athens to Alexandria. This enlightened prince spared no pains to raise the literary, as well as the civil, military, and commercial credit of his country. Under the patronage first of the Egyptian princes, and afterwards of the Roman emperors, Alexandria long continued to enjoy great celebrity as the seat of learning, and to send forth eminent philosophers of every sect to distant countries. It remained a school of learning, as well as a commercial emporium, till it was taken, as we shall see in the sequel of this article, and plundered of its literary treasures by the Saracens. Philosophy, during this period, suffered a grievous corruption from the attempt which was made by philosophers of different sects and countries, Grecian, Egyptian, and Oriental, who were assembled in Alexandria, to frame, from their different tenets, one general system of opinions. The respect which had long been universally paid to the schools of Greece, and the honours with which they were now adored by the Egyptian princes, induced other wise men, and even the Egyptian priests and philosophers themselves to submit to this innovation. Hence arose an heterogeneous mass of opinions, under the name of the Eclectic philosophy, and which has been the foundation of endless confusion, error and absurdity, not only in the Alexandrian school, but among Jews and Christians; producing among the former that sanguine kind of philosophy, which they called their cabala, and among the latter innumerable corruptions of the Christian faith. The Alexandrian school is celebrated

by Strabo (lib. xvii.) and by Ammianus (xii. 6.) Brucker's History of Philosophy, by Enfled, vol. i. p. 500.

At Alexandria there was, in a very early period of the Christian era, a Christian school of considerable eminence. St. Jerome says, the school at Alexandria had been in being from the time of St. Mark. Pantaenus, placed by Larder at the year 192, prefixed in it. St. Clement of Alexandria succeeded Pantaenus in this school about the year 190; and he was succeeded by Origen. Larder's Works, vol. ii. p. 203. As the extensive commerce of Alexandria, and its proximity to Palestine, gave an easy entrance to the new religion, it was at the school of this city that the Christian theology appears to have assumed a regular and oriental form: and when Adrian visited Egypt, he found a church composed of Jews and Greeks, sufficiently important to attract the notice of that inquisitive prince. The theological system of Plato was introduced into both the philosophical and Christian schools of Alexandria; and of course many of his sentiments and expressions were blended with the opinions and language of the professors and teachers of Christianiety. See Platonism.

The city of Alexandria, which had maintained its reputation for power and wealth, as well as for literature and science, for nearly 1000 years, and which had hitherto effeetable held in subjection by the Ptolemies, the Romans, and the Greek emperors, was at length captured by the Saracens, and in process of time totally ruined. In the year 638, Amrou, the general of Omar, invaded Egypt; and in the following year he commenced the siege of Alexandria. This siege is perhaps the most arduous and important enterprise in the annals of Saracen conquests. The first trading city in the world was abundantly replenished with the means of subsistence and defence. Her numerous inhabitants fought for the dearth of human rights, religion and property; and the enmity of the natives seemed to exclude them from the benefit of peace and toleration. The sea was continually open; and if Heraclius had been awake to the public diftrusts, fresh armies of Romans and barbarians might have been poured into the harbour, to save the second capital of the empire. A circumference of 10 miles would have scattered the forces of the Greeks, and favoured the stragglers of an active enemy; but the two sides of an oblong square were covered by the sea and the lake Mareotis, and each of the narrow ends exposed a front of no more than 10 furlongs. The efforts of the Arabs, however, were not inadequate to the difficulty of the attempt and the value of the prize. The faithful natives devoted their labours to the service of Amrou; and in every attack his sword and banner glittered in the van of the Moslems. The general, having been released from a temporary captivity, into which his imprudent valour had betrayed him, advanced towards the city doomed to destruction. At length, after a siege of fourteen months, and the loss of 23,000 men, the Saracens prevailed; the Greeks embarked their dispirited and diminished numbers; and the standard of Mahomet was planted on the walls of the capital of Egypt, Dec. 22, A.D. 642. "I have taken," said Amrou to the caliph, "the great city of the world. It is impossible for me to enumerate the variety of its riches and beauty; I shall content myself with observing, that it contains 4000 palaces, 4000 baths, 400 theatres or places of amuse ment, 12,000 shops for the sale of vegetable foods, and 40,000 tributary Jews. The town has been subdued by force of arms, without treaty or capitulation, and the Moslems are impatient to seize the fruits of their victory." According to the Arabian historians, Alexandria, at this time, consisted of three cities, viz. Menas, or the port, which included Pharos and the adjacent parts; Alexandria, properly so called, where the modern Scanderia stands; and Nekitas, or the
the Necropolis of Joscipus and Strabo. The commander of the faithful, on this occasion, rejected the idea of pillage, and directed his lieutenant to reverence the wealth and revenue of Alexandria for the public service and the propagation of the faith; the inhabitants were numbered; a tribute was imposed; the zeal and exertion of the Jacobites were curbed; and the Melchites, who submitted to the Arabian yoke, were indulged in the obscurer but tranquil exercise of their worship. The intelligence of this disgraceful and calamitous event affected the declining health of the emperor, and Heraclius died of a dropy about seven weeks after the loss of Alexandria. Under the minority of his grandson, the clamours of a people, deprived of their daily sufficiency, compelled the Byzantine court to undertake the recovery of the capital of Egypt. In the space of four years the harbour and fortifications of Alexandria were twice occupied by a fleet and army of Romans. They were twice expelled by the valor of Amrou. But the facility of the attempt, the repetition of the insult, and the obstinacy of the refitance, provoked him to swear, that if a third time he drove the infidels into the sea, he would render Alexandria as accessible on all sides as the house of a prostitute. Faithful to his promise, he disembarked several parts of the walls and towers, but the people were spared; and the Molch of Mercy was erected on the spot where the victorious general had dropped the fury of his troops. For the fate of the library, see Alexandria library.

Under the domination of the Arabs, Alexandria gradually lost its splendour. In the year 924 it was taken by the Magrebians, two years after the destruction by fire of its great church, called by the Arabs All Kafiaria, or Gafira, which had been formerly a Pagam temple, erected by queen Cleopatra, in honour of Saturn. The city was soon abandoned by the Magrebians, and in 928 the population of it was again regained. But when their fleet was afterwards defeated by that of the Caliph, the Magrebian general, Abul Kafis, retired from Alexandria, leaving in it a garrison of 300 men, who with the remaining inhabitants were removed by the Caliph's admiral, Thobaid, to an island in the Nile called Aboukir. According to Butchius, more than 200,000 of the wretched inhabitants perished this year.

In the year 875 the old walls had been demolished; its extent contracted to half its ancient dimensions, and those walls were built which exist at the present day. This second Alexandria, which may be called, says Savary, that of the Arabs, preferred by the disposition of its streets the form of a chequer. It had preserved a part of its public places and of its monuments. The Pharos fell exiled; and Alexandria in its decline still preserved an air of grandeur and magnificence that excited admiration.

Of the prosperity and wealth of Alexandria, as the emporium of commerce, we may form an idea by this single circumstance: that, after the defeat of Zenobia, a single merchant of this city, undertook to raise and pay an army out of the profits of his trade. Such were its resources, and the advantages derived from its commerce, that notwithstanding the tributes that were exacted from it by the Greeks and Romans, and the oppressions it suffered from the Saracens, it successively recovered its prosperity; and even in the 13th century, its old mart began to revive, and its port became again the center of commerce. But the dominion of the Turks, and the discovery of the Cape of Good Hope, in 1499, completed its ruin, and from that time it has fallen into decay. The Alexandria of the Arabs was miserably depopulated. Its large buildings fell into ruins, and under a government which discouraged even the appearance of wealth, no person could venture to repair them; and mean habitations were constructed, in lieu of them, on the sea coast.

The present state of Alexandria affords a scene of magnificent ruin and desolation. In the space of two leagues, enclosed by walls, nothing is to be seen but the remains of palaces, of capitals, and of obelisks, and whole mountains of shattered columns and monuments of ancient art heaped upon one another, and accumulated to a greater height than that of the houses. The famous tower of Pharos has been long since demolished, and a square cable, without tackle, ornament, or structure, called Marblon, erected in its place. The mole which joined the continent to the isle of Pharos is enlarged, and is now become a part of the main land. The island of Anti-Rhodes is in the middle of the present town, and is discoverable only by an eminence covered with ruins. The harbour Kibatos is choked up. The canal which conveyed the waters of the lake Marcolis has disappeared. This lake itself, through the negligence of the Turks in preserving the canals which conveyed the waters of the Nile, is no longer in existence, but is entirely occupied by the sands of Libya. The canal of Faunus, the only one which at present communicates with Alexandria, and without which that town could not subsist, since it has not a drop of fresh water, is half filled with mud and sand. Under the Roman empire, and even under the domination of the Arabs, it was navigable all the year, and served for the conveyance of merchandise. Its banks were shaded with date trees, covered with vineyards, and adorned with country houset. At present it has no water till about the end of August, and its supply is barely sufficient to fill the cisterns of the town. The fields adjoining it are stunted; the groves and gardens that surrounded the ancient city have disappeared, and without the walls there are only a few scattered trees, some sycamores and fig-trees, some date and caper trees, and kally, that shade the burning sands, which would otherwise impo-
placed, who gives notice, by a flag, of the ships that are coming into port. From this hill may be seen the sea, the whole extent of the city, and the parts in its vicinity. On the sea-coast there is a large baofon, cut out of the rock that forms the shore, having on its sides two beautiful falmons that are hewn out by the chisel with brushes across them. A canal of a zig-zag form, for the purpose of stopping the progress of the land by its different windings, conveys into them the water of the sea, pure and transparent as crystal. The water rises a little above the walk, when a person is seated on the stone bench, and the feet rest on a fine sand. The waves of the sea dash against the rock and foam in the canal. The swell enters, raises you up, and leaves you; and thus alternately entering and retiring, furnishes a constant supply of fresh water, and a coolness, which is grateful and delicious under a burning sky. This place is vaguely called the Bath of Cleopatra; and some ruins indicate its having been formerly ornamented.

The modern Alexandria is built near the brink of the sea on a kind of peninsula, situated between the two ports above-mentioned. The new port, assigned to Europeans, is clogged up with sand, which renders the entrance into it both difficult and dangerous, and in stormy weather endangers the bilging of the ships; and the bottom is rocky, so that the cables soon chafe and part; and thus vessels are driven against one another, and are sometimes lost. An instance of this kind happened in March 1773, when more than 40 vessels were dashed to pieces on the mole by a north-west gale. Similar accidents have also happened at different times; and under the Turkish government, which, as it is said, ruins the labours of pail ages and destroys the hopes of future time, no provision is likely to be made for preventing their occurring again. The other port, or the Emnoutis of the ancients, to the westward of the Pharos, is called the port of Africa; it is much larger than the former, and lies immediately under part of the town of Alexandria. It has much deep water, though many ships are continually throwing their ballast into it; and without doubt it will be at length filled up and thus joined to the continent. Christian vessels are not suffered to enter this port; and the only reason is, lest the Moorish women should be seen taking the air in the evening at open windows, and this has been thought sufficient to induce Christian powers to submit to the restraint, and to overbalance the constant loss of ships, property and men. The houses at Alexandria, like those of the Levant, have flat terrace roofs; they have no windows, and the apertures which supply their place are almost entirely obstructed by a wooden lattice projecting, of various forms, and so close, that the light can hardly force a passage. In those countries, more than any where else, such inventions, which transform a manison into a prison, are real jealousies, as Sommull says, or window-blinds. Narrow and awkwardly disposed streets are without pavement, as the city is without police; no public edifice, no private building arrests the eye of the traveller; and on the supposition that the fragments of the old city had not attracted his attention, he would find no object in the present town that could supply matter for a moment's thought. Turks, Arabsians, Barbarouises, Copts, Christians of Syria, and Jews, constitute a population which, according to Somnulz, may be estimated at 5000, as far as an estimation can be made in a country where no register of any thing is kept. Commerce attracts thither besides, from all the countries of the east, strangers whose residence is very transient. This motley assemblage of persons of different nations, jealous of and almost always hostile to each other, would present to the eye of the observer a

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singular mixture of customs, manners and dres, if a reform

of thieves and robbers could repay the trouble of observation.

The present Alexandrians are, like their predecessors in former times, chargeable with a prouenence to sedition, which is aided and reftained by the severity of their government. The Britifh and French nations carry on a considerable commerce with Alexandria, and have each a convent residing there. Some Venetian ships also sail thither yearly, under the colours and protection of France. The subjects of those kingdoms who have no confult here are subjected to a tax by the Grand Seignior; but the Jews indemnify themselves for this disadvantage, by selling their commodities cheaper than other foreigners can afford to do; and they are also favoured by the farmers of the revenues, who know that the Jews have it in their power to lessen the quantity of merchandise that comes into their port, for the period of two years, which is the duration of their farm. The language spoken at Alexandria is the Arabic; but most of the Alexandrians, and those in particular whom commerce leads into an intercourse with the merchants of Europe, speak likewise the Italian. The morocco or lingua franca, which is a compound of bad Italian, Spanish and Arabic, is likewise spoken in this place. The government of Alexandria is like that of other places in Egypt; and is conducted by an aga, who has under him a kadi and sub-bafian, all nominated by the chief baha. It has a small garrison of soldiers, part of which are Janizaries and Affaffs; who are haughty and insolent, not only to strangers but to the mercantile and inoffensive part of the people. These are lodged in the farillons or cellars that guard the port, where the aga or governor that commands them also resides. But though the Pharos, according to established regulations, ought to be garrisoned by 500 Janizaries, it has never half that number, and not more than four cannons for its defence. The whole of the fortifications might safely be beat down by a single frigate; but a foreign army would experience great difficulty in maintaining possession of Alexandria for want of water; as the city has not any besides that which is conducted by canals into their refervoirs at the time of the overflowing of the Nile; so that it would be necessary to conquer the whole country, or at least those parts that lie on the banks of the river. Alexandria was taken by assault on the fourth of July, 1798, by the French army, under the command of Bonaparte, the present prince consuli of France; after putting to flight the Arabs and Mamalukes who defended it, and killing about 500 of them. The troops, that were left in possession of the town, when the army began its march across the Defart, having been forbidden, under penalty of death, from entering the houses or mosques of the Turks, on committing any violence on their persons, or those of their families, built huts of palm-branches without the city, to shelter themselves from the sun. The men of science, who accompanied the army, were lodged in the houses of the few Europeans resident at Alexandria, but a dozen of them were crowded together in one chamber, under the heat of a torrid climate. Miserably supplied both with food and water, molested with the flings of insects, and surrounded with filth and wretchedness, they at the same time contemplated in a city, once renowned for industry, commerce and activity, nothing but ruins, barbarism and poverty; stupid-looking citizens, with long pipes, indolently fitting in the public places, half starved and naked children, and the forms of bare-footed women, in blue serge gowns, and black fluff veils, flying the approach, or turning away with precipitation, whenever they met a Frenchman. The French beheld every where monuments of antiquity; but every where misplaced; pillars
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pills of granite, inscribed with Egyptian hieroglyphics, ferved the streets, or divided by the law, served for their holds and benches; marble and porphyry basfs and capitals, baths and catacombs were found in ruins, with nothing entire but a bath of black granite, delinef for the museum of Paris; the pillar of Pompey, and the obficle of Cleo- patra, which were yet in good prefervation. When the blockade of the port by the English fleet, after the famous battle of Abukir, cut off the communication with Rosetta, and the supply of water was then impeded, Bonaparte caufed the canal which led from Rhamania to Alexandria, across a defert of 40 miles, to be cleaned; by which means not only this city received a larger supply of water and provifions, but the artillery was conveyed more expeditiously and conveniently by water to the general depot at Gifs, than it could have been by land. Bonaparte also drew plans for the better defence of the port of Alexandria and the city of Cairo; he also formed a great establishment for the mechanical arts; and with the concurrence of the fcientifc men who attended him formed a national academy, called the Institute. In the year 1801, Alexandria was taken by the English army, under the command of General Hutchinson, the news of which was announced fon after the preliminaries of peace between England and France were signed, by the refpective agents of the two countries; by one article of which Egypt is to be delivered up to the Sublime Ottoman Porte. Alexandria is fituated in N. lat. 31° 17' 25", E. long. 32° 16' 36". Nautical Almanac. According to Bruce (Travels, vol. i. p. 16.) N. lat. 31° 17' 32". E. long. 32° 17' 30". Anc. and Mod. Un. Hill. Rollin's Anc. Hist. Savary's Letters on Egypt, vol. i. letter 2. Sonnini's Travels through Upper and Lower Egypt. Gibbon's Decline, &c. of the Rom. Emp.

Alexandria was also a name given to several other cities; viz. a city of Arcadfa, on the river Arachthus, the Alexandropolis of Ifidore (Stephanus), and by fome thought to be the modern Cabila—another of Gedrodia, both built by order of Alexander the Great; (Pliny, H. N. lib. vi. c. 23.)—A third of Aria, near the lake Arius, according to Ptolemy; but according to Pliny (lib. vi. c. 23.) on the river Aria, built by Alexander, who settled a colony of Macedonians there. (Strabo, lib. xv. Ammianus lib. 22.)—A fourth in Bactriana, fo called, fays Pliny, (lib. vi. c. 23.) from its builder. —A fifth, an inland town of Carmania, built alfo by Alexander, and mentioned by Pliny, Ptolemy and Ammianus.—A sixth, in the country of the Dahe, in Sogdiana, (Ifidorus Claracensis.)—A seventh, in India, at the confluence of the Acenees and Indus, (Arrian, lib. v. c. 15.)—An eighth, built by Alexander the Great, between Ifus and the Straits which lead from Citica into Syria, called also Alexandria, and now Scanderoon. —A ninth, in Margiana, which was built by Alexander, and rebuilt, after it was demolished by the barbarians, by Antiochus the fon of Seleucus, and called Antiochia of Syria, and also Seleucia, watered by the river Mergus; 70 fadas in circuit, according to Pliny (lib. vi. c. 16.) who adds, that, after the defeat of Cæsuris, Orodes conveyed the captives to this place. —A tenth of the Oxiana, in Sogdiana, built by Alexander on the Oxus, near the confluence of Bactria, (Pliny lib. vi. c. 16.)—An eleventh, built by Alexander, at the foot of Mount Parapamisus, which was called Caucausus, (Pliny, lib. vi. c. 23.)—A twelfth, in Troas, called also Troas and Antigonia, ordered to be erected by Alexander, in commemoration of Troy, which had long ceased to exist. Antigonus, one of his lieutenants, laid the foundations of it, and gave his name to the city; but the name of Alex- ander was refored by Lyfmachus, who afterwards possessed, embellifhed and extended it. Having paffe under the domination of the Romans, it became, under Augustus, one of the handsomest cities of the camp. Under Adrian, Herodes Atticus conftrued a fuperb aqueduct, fome few traces of which are still to be fen. The walls of the city, of the houses, of the temples, and of other monuments, are built of a hard fide, done. The marble of Paros and that of Marmora are common here, and also feveral forks of granite. Near the rivulet to the fouth of the city are two springs of mineral waters, reforted to by the Turks and Grecians, which are recommended for disorders of the skin, the leprofy, and sphyphils. The harbour is of narrow extent, and almoft chocked up with fand. History does not mention the epoch in which this city was defroyed. It had no effidence when the Turks established themselves in this country. The environs present a fruitful soil, forming a plain, in which the cedun oak grows in abundance, and without culture. The ruins of this city are fix leagues to the fouth of Cape Sigenum. Olivier's Travels, &c. vol. ii. p. 46. —A thirteenth Alexandria, built by Alexander on the Jaxartes, bounding his victories towards Scythia.—A fifteenth in Adiabene, mentioned by Pliny, and as Hardouin fuggels, designed to perpetuate the remembrance of the defeat of Darius.—A fifteenth on the northern coaft of the Ifland of Cyprus, fouth of the promontory of Caluufa.—A feventeenth in Palestine, on the river Schan, to the fouth of Tyre, near the sea.

Alexandria, of ALEXANDRIA, farnamed Della Paglia, because the inhabitantsufe ftable for fuel instead of wood, or because the Germans contemptuoufly called it Palatina, or a fortrefs of fraw, a city of Italy, in the district of Alexandria or Alexandrino, belonging to the duchy of Milan, has a caflle, and is fituated in a marshy country, on the river Tenaro. It was built in honour of pope Alexander III. in 1179, and is faid to have 12,000 inhabitants. By this pope it was made a bifhopfip, suffragan of Milan, with feveral privileges annexed to it. The citadel is strong, but the fortifications are mean. It was ceded to the duke of Savoy in 1703; taken by prince Eugene, after three days' siege, in 1706, by the French in 1745, and retaken by the king of Sardina, to whom it belongs by the treaty of Utrecht, in 1746. It is 38 miles eaf of Turin, and 37 fourth-south-well of Milan. N. lat. 44° 48'. E. long. 8° 39'.

Alexandria, a town of New Rochell, in the government of Ekatariinofal, on the confines of Poland, 70 miles welf of Ekatariinofal, and 150 fourth-south-well of Know. N. lat. 45° 25'. E. long. 32° 54'.

Alexandria of Alexandrow, a town of Poland, in the palatinate of Volhynia, upon the river Horn, 50 miles call-north-eaft of Lucko.

Alexandria, a township in Grafton county, N. Hampshire, in America, containing 258 inhabitants; incorpofated in 1782. Alexandria, a township in Hunterdon county, New Jersey, containing 1503 inhabitants, including 40 slaves.

Alexandria, a small town in Huntingdon county, Pennsylvania, on the Franklinton branch of Juniatta river, 192 miles north-west of Philadelphia.

Alexandria, formerly called Belltown, a city of Virginia, fite in the southern bank of the Potomac river, in Fairfax county, about five miles south-west of the Federal city, and 250 from the sea; N. lat. 38° 45'. W. long. 77° 10'. Its situation is lofty and pleasant, and the streets are laid out upon the plan of Philadelphia. It contains 400 houses, well built, and 24,8 inhabitants. It bids fair, from the advantages of its situation, to be one of the most thriving commercial places on the continent.
ALEXANDRIA, Patriarch of, in Ecclesiastical History. See Patriarch.

ALEXANDRIAN, in a particular sense, is applied to all those who professed or taught the sciences in the school of Alexandria.

Thus, Clement is called Alexandrinus, or the Alexandrian, though some say he was born at Athens: the same epithet is applied to Apion, born at Oais; and to Arriarchus, by birth a Samothracian. The chief Alexandrian philosophers were Euclid, the famous geometer, the two ancient astronomers, Arithillus and Timocharis, Eratosthenes, Apollonius Pergaeus, Conon, Hipparchus, Ctesibius, Heron, Ptolemaus, Pappus, Theon, Hypatia the daughter of Theon, Ptolemy, and Philoponous and Didymus, the last mathematicians of this school. To these we may add Ammonius, Plotinus, Origen, Porphyry, Jamblichus, Sopater, Maximus and Dexamippus.

Alexandrian Copts, is a manuscript, consisting of four volumes, in a large quarto, or rather a folio size, which contains the whole Bible in Greek, including the Old and New Testament, with the Apocrypha, and some smaller pieces, but not quite complete. This manuscript is now preserved in the British Museum, where it was deposited in 1753. It was sent as a present to King Charles 1. from Cyril Lucas, a native of Crete, and patriarch of Constantinople, by Sir Thomas Rowe, ambassador from England to the Grand Seignior, in the year 1628. Cyril brought it with him from Alexandria, where, probably, it was written. In a schedule annexed to it, he gives this account: that it was written, as tradition informed them, by Thecla, a noble Egyptian lady, about thirteen hundred years ago, a little after the council of Nice. He adds, that the name of Thecla, at the end of the book, was erased; but that this was the case with other books of the Chalians, after Christianity was extinguished in Egypt by the Mahometans: and that recent tradition records the fact of the laceration and erasure of Thecla's name. The proprietor of this manuscript, before it came into the hands of Cyril Lucas, had written an Arabic transcription, expressing that this book was said to have been written with the pen of Thecla the martyr. Various disputes have arisen with regard to the place whence it was brought, and where it was written, to its antiquity, and of course to its real value. Some critics have belied upon it the highest commendation, whilst it has been equally depreciated by others. Of its most strenuous adversaries, Wetstein seems to have been the principal. The place from which it was sent to England was, without doubt, Alexandria, and hence it has been called Codex Alexandrinus. As to the place where it was written, there is a considerable difference of opinion. Matthias Muttiss, who was a contemporary, friend and deacon of Cyrilus, and who afterwards intrusted in the Greek language John Rudolph Wetstein, uncle of the celebrated editor of the Greek Testament, bears testimony, in a letter, written to Martin Bogdan, a physician in Bern, dated January 14, 1664, that it had been brought from one of the 22 monasteries in Mount Athos, which the Turks never destroyed, but allowed to continue upon the payment of tribute. Woide endeavours to weaken the evidence of Muttiss, and to render the testimony of the elder Wetstein unfidiculo: but Spohn, in his edition of the "Notitia Codicis Alexandrinii," p. 10-13, shews, that the objections of Woide are ungrounded. Allowing their reality, we cannot infer, that Cyrilus found this manuscript in Alexandria. Before he went to Alexandria he spent some time in Mount Athos, the repository and manufactory of manuscripts of the New Testament, whence a great number have been brought into the West of Europe, and a still greater number has been sent to Moscow. It is therefore probable, independently of the evidence of Muttiss, that Cyrilus procured it there either by purchase or by present, took it with him to Alexandria, and brought it thence on his return to Constantinople. But the question recurs, where was this copy written? The Arabic transcription above cited clearly proves, that it had been in Egypt, at some period or other, before it fell into the hands of Cyrilus. This transcription shews that it once belonged to an Egyptian, or that during some time it was preferred in Egypt, where Arabic has been spoken since the seventh century. Besides, it is well known that a great number of manuscripts of the Greek Bible have been written in Egypt. Woide has also pointed out a remarkable coincidence between the Cod. Alex. and the writings of the Copts. Michaelis alleges another circumstance as a probable argument of its having been written in Egypt. In Ezekiel xxvii. 18, both in the Hebrew and Greek text, the Tyrians are said to have fetched their wine from Chelba, or, according to Bochart, Chalybon. But as Chalybon, though celebrated for its wine, was unknown to the writer of this manuscript; he has altered it by a fanciful conjecture to "Cupel, or Zepho," wine from Hebron. This alteration was probably made by an Egyptian copyist, because Egypt was formerly supplied with wine from Hebron. The transcription, before mentioned, ascribes the writing of it to Thecla, an Egyptian lady of high rank, who could not have been, as Michaelis supposes, the martyr Thecla, placed in the time of St. Paul: but Woide replies, that a distinction must be made between Thecla martyr and Thecla proto-martyr.

With regard to these transcriptions we may observe, with a learned writer (Martius), that the true state of the case appears to be as follows: "Some centuries after the Codex Alexandrinus had been written, and the Greek transcriptions, and perhaps those other parts where it is more defective already lost, it fell into the hands of a Christian inhabitant of Egypt, who not finding the usual Greek transcription of the copyist, added in Arabic, his native language, the tradition either true or false, which had been preserved in the family or families to which the manuscript had belonged, "Memorant hunc codicum scriptum effe calamo Theclae martyris." In the 17th century, when oral tradition respecting this manuscript had probably ceased, it became the property of Cyrilus Lucas; but whether in Alexandria, or Mount Athos, is of no importance to the present inquiry. On examining the manuscript, he finds, that the Greek transcription is lost, but that there is a tradition recorded in Arabic by a former proprietor, which simply related that it was written by one Thecla a martyr, which is what he means by "memoria et traditione recent." Taking therefore upon trust, that one Thecla the martyr was really the copyist, he consults the annals of the church to discover in what age and country a person of this name and character existed, finds that an Egyptian lady of rank, called Thecla, suffused martyrdom between the time of the holding of the council of Nicea and the close of the fourth century; and concludes, without further ceremony, that she was the very identical copyist. Not satisfied with this discovery, he attempts to account for the loss of the Greek transcription, and ascribes it to the malice of the Saracens; being weak enough to believe that the enemies of Christianness would exert their vengeance on the name of a poor transcriber, and leave the four folio volumes themselves unharmed." The learned Woide, who has himself transcribed and published this manuscript, and must be better acquainted with it than any other person, affirms, that it was written by two different copyists; for
for he has observed a difference in the ink, and which is of greater moment, even in the strokes of the letters. The conjecture of Oudin, adopted by Wetstein, that the manuscript was written by an Acemetas, in the judgment of Michaelis, worthy of attention, (see Acemetas) and he adds, that this conjecture does not contradict the account that Thecla was the copyist, since there were not only monks but nuns of this order.

The antiquity of this manuscript has been also the subject of controversy. Grabe and Schulze think that it might have been written before the end of the fourth century, which, says Michaelis, is the very utmost period that can be allowed, because it contains the epistles of Athanasius. Oudin places it in the tenth century. Wetstein refers it to the fifth, and supposes that it was one of the manuscripts collected at Alexandria in 619, for the Syriac version. Dr. Semler refers it to the seventh century. Montfaucon (Pallaeog. Graec. i. p. 185) is of opinion, that neither the Cod. Alex. nor any Greek manuscript, can be said with great probability to be much prior to the sixth century. Michaelis apprehends, that this manuscript was written after Arabic was become the native language of the Egyptians, that is, one, or rather two centuries after Alexandria was taken by the Saracens, which happened in the year 640, because the transcriber frequently confounds M and B, which is often done in the Arabic; and he concludes, that it is not more ancient than the eighth century. Woide, after a great display of learning, with which he examines the evidence for the antiquity of the Cod. Alex. concludes, that it was written between the middle and the end of the fourth century. It cannot be allowed a greater antiquity, because it has not only the εἰρήνας Principal parts, but the εἰρήνας minora, or Ammonian sections, accompanied with the references to the canons of Eusebius. Woide's arguments have been objected to by Spoln in p. 42-109, of his edition of the "Notitia Codicis Alexandrini." Some of the principal arguments advanced by those who refer this manuscript to the fourth or fifth centuries are the following: the epistles of St. Paul are not divided into chapters like the Gospels, though this division took place so early as 396, when to each chapter was prefixed a supercription. The Cod. Alex. has the epistles of Clement of Rome; but these were forbidden to be read in the churches, by the council of Laodicea, in 364, and that of Carthage, in 419. Hence Schulze has inferred, that it was written before the year 364; and he produces a new argument for its antiquity, deduced from the last of the 14 hymns found in it after the palmas, which is supererogated εἰρήνας σωματικός, and is called the grand doxology; for this hymn has not the clause ἄνευ ἀρετῆς, ἀνατελλόμενον ἀμώματα, which was used between the years 434 and 446; and therefore the manuscript must have been written before this time. Wetstein thinks that it must have been written before the time of Jerome, because the Greek text of this manuscript was altered from the old Italic. He adds, that the transcriber was ignorant that the Arabs were called Hagarines, because he has written, 1 Chron. v. 20, ἄνευ ἁρίτης for ἄναπτος. Others allude that ἄρτης is a mere erratum; because ἄρτης occurs in the preceding verse, ἄρτης in 1 Chron. xxvii. 31, and ἄρτης in Pr. xxxii. 7. These arguments, says Michaelis, afford no certainty, because the Cod. Alex. must have been copied from a still more ancient manuscript; and if this were faithfully copied, the arguments apply rather to this than to the Alexandrian manuscript itself. It is the hand-writing alone, or the formation of the letters, with the want of accent, which can lead to any probable conclusion. The arguments alluded to prove that it is not so ancient as the fourth century, are such as these... Dr. Semler thinks, that the epistle of Athanasius, on the value and excellency of the Psalms, would hardly have been prefixed to them during his life. But it ought to be recollected, that Athanasius had many warm and fervent advocates. From this epistle Oudin has attempted to deduce an argument, that the manuscript was written in the tenth century. This epistle, he says, is spurious, and could not have been forged during the life of Athanasius, and the tenth century was fertile in spurious productions. Again, the Virgin Mary, in the superscription of the Song of the Blest Virgin, is titled εὐφροσύνη, a name which Wetstein says betrays the fifth century. Further, from the probable conjecture, that this manuscript was written by one of the order of the Acemetes, Oudin concludes against its antiquity; but Wetstein contents himself with affirming, that it could not have been written before the fifth century, because Alexander, who founded this order, lived about the year 420. From this statement, pursued more at large, Michaelis deduces a reason for paying less adoration to the Cod. Alex. than many eminent critics have done, and for the preference that is due, in many respects, to ancient versions, before any single manuscript, because the antiquity of the former, which is in general greater than that of the latter, can be determined with more precision.

As to the value of this manuscript, it has been differently appreciated by different writers. Wetstein, though he denounces it by A, the first letter of the alphabet, is no great admirer of it, nor does Michaelis estimate it highly, either on account of its internal excellence or the value of its readings. The principal charge which has been produced against the Alexandrian manuscript, and which has been strongly urged by Wetstein, is its having been altered from the Latin version. It is incredible, says Michaelis, who once agreed in opinion with Wetstein, but found occasion to alter his sentiments, that a transcriber who lived in Egypt, should have altered the Greek text from a Latin version, because Egypt belonged to the Greek diocese, and Latin was not understood there. On this subject Woide has eminently displayed his critical abilities, and ably defended the Greek manuscripts in general, and the Codex Alexandrinus in particular, from the charge of having been corrupted from the Latin. Griesbach concurs with Woide, in his "Symbola Critica," vol. i. p. 110-117; and both have contributed to confirm Michaelis in his new opinion. If this manuscript has been corrupted from a version, it is more reasonable to supplest the Coptic, the version of the country, in which it was written. Between this manuscript and both the Coptic and Syrian versions, there is a remarkable coincidence. Griesbach has observed, that this manuscript follows three different editions: the Byzantine in the Gospels, where its readings are of the least value; the Western edition in the Acts of the Apostles, and the Catholic Epistles, which form the middle division of this manuscript, and the Alexandrine in the Epistles of St. Paul. The transcriber, if this affection be true, must have copied the three parts of the Greek Testament from three different manuscripts, of three different editions. It is observable, that the readings of the Cod. Alex. coincide very frequently, not only with the Coptic and the old Syrian, but with the new Syrian and the Ethiopic; and this circumstance favours the hypothesis, that this manuscript was written in Egypt, because the new Syrian version having been collated with Egyptian manuscripts of the Greek Testament, and the Ethiopic version being taken immediately from them, have necessarily the readings of the Alexandrine edition.

This manuscript, as we have already observed, consists of four volumes: the three first of which contain the Old Testament, the fourth the New Testament, together with the
first Epistle of Clement to the Corinthians, and a fragment of the second. In the New Testament there is wanting the beginning as far as Matt. xxv. 6, &c. xvi. 17; likewise from John vi. 50, to viii. 52, and from 2 Cor. iv. 13, to xii. 7. The Psalms are preceded by the epistle of Athanasius to Marcellinus, and followed by a catalogue, containing those which are to be used in prayer for each hour, both of the day and of the night; also by 14 hymns, partly apocryphal, partly biblical, the eleventh of which is a hymn in praise of the Virgin Mary, entitled περί τιθέμενον της ημέρας; the hypotheces Eusebii are annexed to the Psalms, and his canones to the Gospels. This manuscript has neither accents nor marks of aspiration; it is written with capital, or as they are called, uncial letters; and there are no intervals between the words, but the sense of a passage is sometimes terminated by a point, and sometimes by a vacant space. Although abbreviations are not very numerous, yet this manuscript abbreviates ται, τα, τας, της, των, τωστ, των; and it has also other marks of abbreviation. Dr. Scmiller supposes, that the more ancient manuscripts from which the Cod. Alex. was copied, had a much greater number; from a false method of decapering, which marks, he explains many errors committed by the copyist of the latter. See his Note 23 to Wetstein's Prolegomena. Of these abbreviations, and the points annexed to certain letters, which before appeared unintelligible; and of the large initial letters, which are sometimes placed in a very extraordinary manner; and of other particulars, a full account may be seen in Woide's Preface, who has given a very accurate description of the manuscript in general. No manuscript has been more frequently and more accurately collated; and it was supposed, that the last extracts, made by Wetstein, would have rendered future labours of this kind superfluous; but Woide informs us, that Wetstein is chargeable with several omissions and errors, and has admitted into his collection of readings the mistakes of Mill. We are now in possession of a perfect impression of this manuscript, accompanied with so complete and so critical a collection of various readings, as is hardly to be expected from the edition of any other manuscript. Dr. Woide published it in 1786, with types cast for the purpose, line for line, without intervals between the words, as in the manuscript itself; the copy is so perfect a resemblance of the original, that it may supply its place: its title is "Novum Testamentum Graecum Codice MS. Alexandrino qui Londini in Bibliotheca Musei Britannici abbreviatum descriptum." It is a very splendid folio, and the preface of the learned editor contains an accurate description of the manuscript, with an exact list of all its various readings, that takes up no less than 89 pages, and each reading is accompanied with a remark, in which is given an account of what his predecessor, Junius, Walton, Fell, Mill, Grabe, and Wetstein, had performed or neglected. Those who are dextrae of further information concerning this manuscript, may consult the Prolegomena of Mill, Grabe, Wetstein, and Woide. See also Michaelis's Introduction to the New Testament, by Marsh, vol. ii. part i. p. 160—209, part ii. p. 648—660.

ALEXANDRIAN Library, called by Livy "Elegantiæ regum cursuque egerim opus," was first pointed out by Ptolemy Soter, for the use of the Academy, or Society of learned men, which he had founded at Alexandria. Before the books which he procured, his son Ptolemy Philadelphus added many more, and left in this library at his death a hundred thousand volumes; and the succeeding princes of this race enlarged it still more, till at length the books lodged in it amounted to the number of seven hundred thousand volumes. The method by which they are said to have collected these books was this: they seized all the books that were brought to the Greeks, or other foreigners, into Egypt, and lent them to the Academy, or Museum, where they were transcribed by persons employed for that purpose. The transcripts were then delivered to the proprietors, and the originals laid up in the library. Ptolemy Euergetes, for instance, borrowed of the Athenians the works of Sophocles, Euripides and Zeæhus, and only returned them the copies, which he caused to be transcribed in such a beautiful manner as possible; the originals he retained for his own library; presenting the Athenians with 15 talents for the exchange, that is, with three thousand pounds sterling and upwards. As the Museum was at first in the quarter of the city called Bruchion, the library was placed there; but when the number of books amounted to four hundred thousand volumes, another library, within the Serapeum, was erected by way of supplement to it, and on that account called the daughter of the former. The books lodged in this increased to the number of three hundred thousand volumes; and these two made up the number of seven hundred thousand volumes, of which the royal libraries of the Ptolemies were said to consist. In the war which Julius Caesar waged with the inhabitants of Alexandria, the library of Bruchion was accidentally, but unfortunately, burnt. But the library in the Serapeum still remained, and there Cleopatra deposited the two hundred thousand volumes of the Pergamanian library, with which she was prefeted by Marc Antony. These, and others added to them from time to time, rendered the new library of Alexandria more numerous and considerable than the former; and though it was plundered more than once during the revolutions which happened in the Roman empire, yet it was as frequently supplied with the fame number of books, and continued for many ages to be of great fame and use, till it was burnt by the Saracens in the 62d year of the Christian era. Abulpharagius, in his history of the roth dynasty, gives the following account of this catastrophe. John Philoponus, formed the Grammarian, a famous Peripatetic philosopher, being at Alexandria when the city was taken by the Saracens, was admitted to familiar intercourse with Amrou, the Arabian general, and promised to solicit a gift, ineligible in his opinion, but contemptible in that of the barbarians; and this was the royal library. Amrou was inclined to gratify his wish but his rigid integrity ferupled to alienate the least object without the content of the Caliph. He accordingly wrote to Omar, whose well known answer was dictated by the ignorance of a fanatic. "If these writings of the Greeks agree with the Koran, or book of God, they are ufeless, and need not be preferved; if they disagree, they are pernicious, and ought to be destroyed." The sentence of destruction was executed with blind obedience: the volumes of paper or parchment were distributed to the four thousand baths of the city; and such was their number, that six months were barely sufficient for the consumption of this precious fuel. Since the dynasties of Abulpharagius have been given to the world in a Latin version, this tale, as Mr. Gibbon (Hist. vol. ix. p. 440. calls it, has been repeatedly transcribed; and every scholar, with pious indignation, has deplored the irreparable wreck of the learning, the arts, and the genius of antiquity. "For my own part," says this Historian, adopting the feer of Renouard (Hist. Alex. Patriarch. p. 170.) "I am strongly tempted to deny both the fact and the consequences; the fact is indeed marvellous." "Read and wonder!" says the Historian himself; and the solitary report of a bargain who wrote at the end of six hundred years in the confines of Media, is overbalanced by the silence of two annals of a more early date, both Christians, both natives of Egypt, and the
most ancient of whom, the patriarch Eutychius, has amply
described the conquest of Alexandria. But this curious
anecdote will be vainly sought in the annals of Eutychius,
and the Saracenic history of Elmacin. The silence of Abul-
fedâ, Murtadi, and a crowd of Mollems, is less conclusive
from their ignorance of Christian literature. The rigid sen-
tence of Omar is repugnant to the sound and orthodox
precept of the Mahometan cauffals: they expressly declare, that
the religious books of the Jews and Christians, which are
acquired by the right of war, should never be committed to
the flames; and that the works of profane science, histo-
rians or poets, physicians or philosophers, may be lawfully
applied to the use of the faithful. 3 See Roland de Jure Mil-
itari Mohammedanorum, in the third volume of Differtations,
p. 37. The reason for not burning the religious books of
the Jews or Christians, is derived from the respect that is due
by the name of God. It should be considered, however, that
the positive evidence of an historian, of unquestionable credit
as Abulpharagis, cannot be set aside by an argument merely
negative. Mr. G. acknowledges, that "a mere destructive
zeal may perhaps be attributed to the first successors of Ma-
homet." His references to A. Gallius (Noctes Attice, I. vi.
c. 17.) Ammian Marcell. (l. xii. c. 16.) and Orofius (l. vi.
c. 15.), as speaking of the Alexandrian libraries in the first
tent, are foreign from the purpose; for these writers only
refer to the destruction of books at Alexandria in the time of
Julius Caesar; after which, large libraries must have been
continually accumulating, during the long period in which
the schools of philosophy flourished in that city. Brucker's
Hist. Philos. by Enfield, vol. ii. p. 228. On the subject of
this article, see Ammian Marcellin. l. xii. c. 16. p. 266.
in Apolog. c. 18. p. 18. ed. Rigalt. Enscib. in chron. Gel-
lus, l. vi. c. 17. Idibus. Orig. l. vi. c. 3. Orofius, Hist.
ALEXANDRIN, in Geography, a small district of Italy,
in the duchy of Milan, in the environs of Alexandre
alleged by, to which it owes its name.
ALEXANDRIN, or ALEXANDRIAN, in Poetry, the name of
a kind of verse, which consists of twelve, or of twelve
and thirteen syllables, alternately; the rest, or pause, being
always on the sixth syllable.
It is said to have taken its name from a poem on the
life of Alexander, entitled, the Alexandriad; written, or
at least translated into this kind of verse by some French
poets; though others will have it so denominated from one
of the translators, Alexander Paris.
This verse is thought by some very proper in the epos,
and the more sublime kinds of poetry; for which reason it
is also called Heroic Verse.
it answers in our language to the hexameters in the
Greek and Latin; though, according to some, it rather
answers to the feanur of the ancient tragic poets. Chap-
man's translation of Homer confuts wholly of Alexan-
drians.

The advantages of the Alexandrian verse, are its keep-
ing the rhymes from coming so near, and consequently hin-
dering them from being so much perceived. To this may
be added, that coming nearer to the nature of prose, it is
fitter for theatrical dialogue, and supplies the office of the
ancient rhymes better than any other verse in rhyme.
ALEXANDRINUS, JULIUS, in Biography, born at
Trent, in the early part of the 16th century, was physician
Vol. L to the emperor Charles V., and afterwards to Maximilian II.
by whom he was highly esteemed. He also acquired reputa-
tion as a poet, particularly for his Pedotrophia, a poem,
published at Zurich, 1559, 8vo.

His medical works, which are numerous, and principally
compiled from the ancients, or written in defence of the
dogma of Galen, are of little value. For their titles see
Eloy's Dictionnaire Historique de la Medicine. He died at
Trent, his native city, in the year 1590, aged 84 years,
and was honoured with the following epitaph:

Cæfaribus si quis multos inferriit annos,
Acceptus magnis principibisque fuit.
Te, Juli, vate nec poësim medicurnque fateri.
Doctnra in equis gratia tanta fuit.

ALEXANDROV, in Geography, a town of Kuban
Tartary, in the Russian government of Caucasus, 16 leagues
west north-west of Ekaterinograd.

ALEXANDROVSKAIA, a fortress of Russia in the
government of Ekaterinopol, 36 leagues north-east of
Cherfon. N. lat. 47° 35'. E. long. 35° 14'. This is also
the name of another fortress in the same government, 38
leagues north-west of Cherfon.

ALEXICACUS, composed of αλεκα, I drive away,
and κσόνος, evil, is something that preserves the body
from harm or mischief, and alexicus amounts to much the
same with alexiterial.

ALEXICACUS, in Antiquity, was an attribute of Neptune,
whom the sullen fishers used to invoke under this appel-
loration, that their nets might be preferred from the ärceo,
or sword-fish, which used to tear them, and prevent the
affluence which it was pretended the dolphins used to give
the tunnics on this occasion. It was also an epithet of
Hercules, as the defender of men.

ALEXINTA, in Geography, a town of European
Turkey in Servia, six leagues north-north-east of Nissa.

ALEXIPHARMIC, in Medicine, expresses that prop-
erty which a remedy, either simple or compound, hath to
refit or destroy every thing of a poisonous or malignant
nature. The word is derived from αλεκα, akee, I expel,
and κσόνος, poison.

The ancients had a notion, that there was poison in all
malignant diseases, and in the generality of these whose
cause was unknown. Whence alexipharmica became a deno-
mination for all remedies and antidotes against malignant
diseases, and for amulets.

The study of poisons and antidotes appeared at an early
period among the physicians of Greece and Rome, and
continued as long as the Greek physic lasted; and hence
has arisen the number of antidotes and theriaca so fre-
quently mentioned by those ancient writers. But their
compositions for the correction of poisons were equally
injudicious and unsuccessful. Modern physicians, and par-
ticularly the Galenists, adopting the ideas of the ancients,
have transferred them from the cave of poisons taken into
the body, to that of noxious powers arising from contagion,
or in any other way. The cure of the diseases proceeding
from these, they have, therefore, attempted by the correc-
tion or expulsion of the morbid matter, and they have ad-
r ministered medicines for this purpose, under the titles of
alexipharmics and alexiterials.

Alexiterial, cardiae, antidote, alexipharmic, and counter-
poison,
post, are all terms nearly of the same signification; and so are theriacs, upon the supposition of their being fitted to expel the poison of animals.

Alexipharmics are ordinarily divided into such as are general; and these are, in particular, supposed only to combat some particular disease.—But this division is founded more on speculation than experience.

Alexipharmic medicines, in general, are aromatic and pungent to the taste.—Among the redb, it is true, there are some acid plants and juices: but there are only reckoned in the number, on account of their use in malignant and colliquative fevers.

Alexipharmics chiefly act by exciting or increasing a diaphoresis, or perforation; or by supporting the vigorous motion of the heart and arteries, which is always diminished in malignant diseases unattended by inflammation. In this latter kind wine may be reckoned among the principal alexipharmics. These medicines are also employed as diuretics against malignant and pellagrinal fevers: but they are to be used with caution.

It is dangerous to administer alexipharmics to young people of phthisic habits, without previous evacuations; and Celsus advises only to promote a sweat, when the marks of one approaching are evident.

Alexipharmics are described proper correctors of opium, when it produces lassitude, nausea, &c. They are also serviceable in those diseases which proceed from external cold, and obstructed perforation; as catarrh, rheumatism, fluxes, coughs, and glandular tumours. Alexipharmics make a large class of medicines: but the principal ones are these: 1. Of the animal kingdom, hartborm, bezoars, and the bones and teeth of different animals. 2. Of the vegetable kingdom, the leaves and flowers of all the aromatic plants, especially such as are umbelliferous. 3. Of the mineral kingdom, the different preparations of antimony, the dulcified spirit of vitriol, together with alcohol in all its forms and combinations. It does not appear, says Dr. Cullen, that the medicines given under the titles of alexipharmics and alexiterials are in any respect fitted to expel morbid matter. So far as they are adapted to this purpose, they are diaphoretics or sudorifics, and should be cautiously used. The terms, therefore, he thinks, should be expunged from the writings on the Materia Medica; for, though the medicines may be useful, yet when they are given under the false idea which the terms imply, they may lead to an erroneous practice. Cullen's Med. vol. i. p. 165.

ALEXIPPUS, in Biography, one of the physicians to Alexander the Great, and in high esteem, as Phutarch informs us, with that prince.

ALEXIS, Michaelowitz, of Mikulovitch, in Biography and History, czar of Russia, succeeded his father Michael Theodorowitch in 1646, at the age of 15 years. He was immediately crowned by the direction of Morosof, who became his prime minister, and engrossed to himself the whole power of government. In order the more effectual to secure his influence with the czar, he married him to one of the daughters of a nobleman of small fortune, attached to his interest, and took the father for his own wife. Although Morosof was in some respects an useful minister, by his attention to the army, by strengthening the frontiers against Poland and Sweden, and by erecting manufactories for arms, none of these services were sufficient to compensate the oppression which the people suffered under his administration. These grievances at length, viz. in 1648, produced an insurrection at Moscow; and the people demanded justice against Morosof and his confederates.

Two of their principal opponents were put to death, and the minister escaped merely by the intercession of the czar himself. About this time appeared an impostor, the son of a linen draper of Wologda, who, under various pretences laid claim to the throne. Neither the Swedes nor the Poles, whom he endeavoured to interest in his cause, afforded him any support; and after a short course of extravagance and profligacy, he fell into the hands of the Russians, who, after in vain attempting to obtain from him a confession by torture, put him to a cruel death. When these tumults were appeased, Alexis loaded the government, and exhibited promising tokens of capacity and vigour. Having settled a difficulty between Russia and Sweden by an embassy to Queen Christina, he directed his attention to Poland, and offered to employ his army in subduing the Cossacks, on condition of their conferring upon him the vacant crown. But the interest of France prevailing in favour of Calimir, the brother of Uladislaus their late king, Alexis declared war against the Poles, and inflicted the Cossacks, succeeded in recovering Smolensk, Wilna, Kiow, and the province of Czernichow, which had been ceded to the Russians by the late peace. Poland being at this time, viz. in 1656, invaded by Gustavus, king of Sweden, with a formidable army, Alexis made a truce with that kingdom; and as the Swedes had appropriated to themselves the duchy of Lithuania, which the czar looked upon as his conquest, he marched his army into Carelia, Ingria and Lithuania. At length, however, he thought it advisable, in 1658, to conclude a three years truce with Sweden; which, in 1661, was confirmed into a peace by the treaty of Cardis. By this treaty it was agreed, that, disregarding all that had passed between the two powers, every thing should remain as it had been settled by the treaty of peace made at Stolbova in 1617. The war of Alexis with Poland terminated more honourably for Russia. An armistice for 13 years, agreed upon at Andrufllos in Lithuania was the forerunner of a complete pacification, which was effected in 1686, and which referred to the empire Smolentso, Seweria, Czernichow, and Kiow. The king of Poland likewise relinquished the supremacy he had hitherto affected over the Cossacks to the czar; and these people became now a protected relative of the Russian empire. Notwithstanding this favourable issue of the czar's contest with the Poles, a formidable domestic rebellion obstructed the operation of the plans which he was pursuing for the good of his country. This was occasioned, in 1669, by Stenko (Stephen) Radzin, whose brother had been hanged by order of Dolgoruchi, the Russian commander; and as he had thus infringed upon the liberty of the Cossacks, they made this a pretext for arming against their sovereign, though there is reason to believe that ambition was the ruling principle of Radzin. Whatever was the motive, a civil war was the consequence, which was carried on with various successes, and equal cruelty on both sides. Radzin gained possession of Archangels, and being joined by a multitude of peasants, who murdered their lords, his army at one time amounted to 200,000 men. This rebellion was not suppressed till the year 1671, when Radzin was betray ed into the hands of the czar, and executed. The affairs of Poland, and the measures which Alexis had taken for making himself protector of the Cossacks, produced a misunderstanding between the Grand Seignior and the czar, which terminated in actual hostilities. Alexis endeavoured to engage all the Christitian potentates in his dispute, and to form a league against the Turks; and with this view he sent embassadors to several of them, and one to Rome, who refused
ALEXIS, a famous satirist, mentioned by Pliny, N. H. tom. ii. p. 649.

ALEXIS, a Greek comic poet, uncle to Menander, who flourished in the time of Alexander the Great, about 363 years before the Christian Era. Fragments of this poet may be found in "Vetulissimum Graecorum Bucolica Gnomica," &c. Crispin, 1578. 16to.

ALEXIS, William, a Benedictine monk, in the abbey of Lyra, was living in 1500, and has left several pieces of poetry, which were esteemed in their time. The principal are "Four Chants-Royaux," 16to. "Le Paffé-témes de tout hommes de toutes femmes," Paris, 4to. and 8vo, translated from a work of Innocent III. and describing the miseries of man, from the cradle to the grave. "Le grand blâr des faulx amours," 16to. and 4to; a Dialogue on the evils occasioned by love. Biog. Dict.

ALEXIS, a Plémont'f, was born of a noble family, and by his early application acquired the knowledge of the Latin, Greek, Hebrew, Chaldee, Arabic, and other languages. Alexis is supposed to be a feigned name; and the real name of this author, who wrote in the beginning of the 16th century, is apprehended to be Hieronymus Ruffellius; and he is said to have died in 1565. It has been generally alleged, though it be not strictly true, that he was the first person who mentioned ULTRAMARINE. His receipt, however, has been followed since that time as the best and most certain. His work "De Secretis," furnishes materials for the technological history of inventions. It was printed for the first time at Milan, in 1557; though Beckman apprehends that the first edition must have been of an older date. A French translation was printed at Antwerp in 1557. "The Secrets of Alexis," London, 1558, is mentioned by Ames in his "Typographical Antiquities," p. 296. Wecker, a physician at Colmar, translated this book into Latin, and enlarged it with additions, under the title of "De Secretis Libri XVII." The first edition, according to Haller, was published at Bâle, in 1559, 8vo. Many editions of it have since appeared. The last, by Zwinger, was published at Bâle in 1573. Alexis, it is said, urged by a curiosity to be acquainted with the secrets of nature, collected as much as he could during his travels for 57 years, and valued himself on concealing them; but when he was 82 years of age, he gave a poor man, whose disorder proved fatal, because he had not discovered an effectual remedy, of which he was possessed; upon which his conscience troubled him, that he became a hermit; and in his solitary retirement, arranged his secrets in an order fit for publication. Gen. Dict. Beck- man's Hist. Inventions, vol. ii. p. 351.

ALEXIS, in Entomology, a species of Papilio Phebus, with eaudated brown wings, and a carmine band under the posterior; found in India.

ALEXITERIAL, in Medicine, a term of the same import with alexipharmic; but chiefly applied to the milk-water of that name, and remedies against the poisonous bites of animals.

But it is said by some authors that alexiterials differ from alexipharmics: thus, alexipharmics signify medicines against poisons taken internally; whereas alexiterials are remedies against the poisons of venomous animals inflicted externally.

ALEXUS I. COMMENUS, in Biography and History, emperor of the East, was the son of John Commenus, the brother of the emperor Isaac, and born at Constantinople, A.D. 1048. He was endowed by nature with the choice gifts both of mind and body; these were cultivated by a liberal education, and exercised in the school of obedience.
and adversity. Alexius, and Isaac, his elder brother, distin-
guished themselves in the wars against the Turks, and adhered
to the emperor Michael Ducas, till he exchanged the empire
for a monastic habit and the title of archbishop of Ephesus.
On this occasion Alexius offered his services to Nicephorus
Botoniates, the successor of Michael; and with a noble
frankness addressed him: "Prince, my duty rendered me
your enemy; the decrees of God and the people have made
me your subject. Judge of my future loyalty by my past
opposition." His fidelity and valor, as well as his humanity,
were sufficiently evinced by his victorious exploits against
the three rebels, Urfel, Brycianus and Bafiliarius, who dis-
turbed the peace of the empire. But his refusal to march
against the fourth rebel, the husband of his sister, cancelled
the merit and the memory of his past services; and the two
brothers, driven into rebellion and supported by the army,
succeeded in deposing Botoniates. Isaac, though the elder
brother, was the first to invest Alexius with the name and
censures of royalty, and being hailed emperor by the army,
he marched immediately against Constantinople, which he
took and plundered; and the fleet was induced by the in-
fluence of George Palaeologus, to declare in his favour.
Botoniates regained the empire, and Alexius, without further
contest, ascended the throne, A.D. 1081. Having com-
pensated for the plunder of the churches and monasteries at
Constantinople, by every penance compatible with the pos-
session of the empire, he prepared for refraining the con-
quists of the Turks, who had feigned on several provinces,
and threatened to subvert the empire. The Turks, however,
made overtures of peace, which were accepted by Alexius,
in consequence of the hostilities that were meditated against
him in the west by Robert Guiscard, duke of Puglia and
Calabria. Robert, having landed at Bathrotum, in Epirus,
and advancing to Dyrrachium or Durazzo, which was
defended by a garrison under the command of George Pa-
ulegus, was there met by Alexius with a large army. In
a general action, which he commenced against the advice of
his wisest captains, Oct. 18, A.D. 1081, he sustained a
defeat, which was attended with great losses, and followed by
the surrender of Durazzo, Feb. 8, A.D. 1082. Alexius
was affiduous in raising new levies, and in order to obtain
necessary supplies, he profumed, in a manner very offensive
to the ecclesiastics, to borrow the superfluous ornaments of the
churches. He also formed an alliance with Henry, em-
peror of Germany, who invaded Calabria, and whose pro-
gress demanded the haft return of Robert. Bohemund,
the son of Robert, was appointed his lieutenant in the east;
but after reducing several places in Illyricum, he was con-
tained, by a mutiny in the army, to repair to his father in
Italy. In October, A.D. 1084, Robert returned the design
of his eastern conquests, and made a second expedition into
Greece. Alexius, apprehending an attack, had obtained
a very considerable succour to his naval forces from the re-
pubHc of Venice. By the union of the Greeks and Vene-
tians, the Adriatic was covered with an hostile fleet; but
by the vigilance of Robert and the concurrence of favourab.len
circumstances, the Norman troops were safely disembarked
on the coast of Epirus. The decision of the sea was dis-
puted in three engagements, in sight of the island of Corfu;
in the two former, the skill and numbers of the allies were
superior; but in the third, the Normans obtained a final and
complete victory. On this occasion, Anna Cornenena,
the daughter of Alexius, and the writer of his life, deplores
the loss of 13,000 of his subjects or allies. But in the isle
of Cephalonia, the projects of Robert were fatally blasted by
an epidemic disease; and he himself, in the 70th year of
his age, expired in his tent; not without the suspicion of
poison, which public rumour imputed to his wife, or to the
Greek emperor, Alexius, who had trembled for his empire,
and now rejoiced in his deliverance. The Normans withdrew
their forces from Greece, and tranquillity was restored.
This war was succeeded by another with the Scythians, who
passing the Danube, laid waste a great part of Thrace, and
were guilty of many horrid cruelties. The generals of
Alexius, who were first employed in opposing them, suf-
tained several defeats; but they were at length completely
subdued, with a very general slaughter, by the emperor
himself. His next attention was engaged by the Turks, and
again by the Scythians; but Alexius, having terminated his
campaigns with both these enemies by a peace, returned to
Constantinople; where he was informed, that the Western
Christians were making great preparations for the recovery
of the Holy Land, at that time possessed by the Turks and
Saracens. At the council of Placentia, held March, A.D.
1095, the ambassadors of Alexius appeared to plead the
distress of their sovereign and the danger of Constantinople,
which was divided only by a narrow sea from the victorious
Turks, the common enemies of the Christian name; and the
relief of Constantinople was included in the larger and
more distant project of the deliverance of Jerusalem. The
emperor's ambassadors had solicited a moderate succour, per-
haps of 10,000 soldiers; but when the Crusaders arrived,
A.D. 1096, he was astonished by their number, and fluc-
tuated between hope and fear, between timidity and courage.
His conduct was irresolute and ambiguous, and he has been
charged by the Latin writers, with the base treachery.
His gifts and promises, however, insensiblyfoothed the fierce
spirit of the Western strangers; and as a Christian warrior,
he rekindled their zeal for the protection of their holy
empire, which he engaged to second with his troops and
treasures. By his skill and diligence, Alexius prevented
the union of any two confederate armies, at the fame moment,
under the walls of Constantinople; and he contended himself,
either from pride or prudence, with extorting from the
French princes an oath of honour and fidelity, and a solemn
promise, that they would either restore, or hold, their Asiatic
conquests, as the humble and loyal vassals of the Roman
empire. Nice was the first object of attack on the part of
the Crusaders, and the means of conquest were supplied by
the prudence and industry of Alexius; he guarded with
jealous vigilance this important conquest, and the city was
delivered up to his lieutenant. When the crusaders after-
wards took possession of Antioch, they elected Bohemund
prince of that metropolis, alleging that Alexius had violat-
ed his agreement, and under various pretences, declined
affording them the least alli ance. The consequence of this
appointment was a war between Bohemond and Alexius,
who fitted out a powerful fleet, which obtained a complete
victory over that of the Crusaders, near Rhodes. He also re-
took Laodicea, which Bohemond had appropriated to himself,
as prince of Antioch. Alexius, by his endeavours to stop
the progress of the Christian princes in the East, incensed
the pope and the people to such a degree, that they con-
idered him as an enemy to the Christian name, and supplied
Bohemond with large succours to oppose him. Bohemond,
thus aided, laid siege to Durazzo; but the place held out
till the war was concluded by a negotiation. Alexius, dis-
engaged from this contest, marched in person against the
Turks, who renewed their incursions as far as Nice, and de-
feated them with great slaughter. They returned, however,
the next year, and being dispirited by succefive defeats, they
fied for peace and obtained it. The remaining part of the
life of Alexius was devoted to the purpose of healing the
divisions, which at that time rent the Greek church. After
a long
ALE

a long reign of 37 years, Alexius died, A.D. 1138, and

was succeeded in the empire by his son John Comnenus.

Of the character of this emperor the Greek and Latin

writers have given a very different account. In the biography

of his daughter, the celebrated Anna Comnena, it is lost in

a vague constellation of virtues, and the perpetual train of

panegyric and apology awakens our jealousy to question the

veracity of the historian and the merit of the hero. On the

other hand, the Latin writers, who have written the history

of the holy war, represent him as a monster of perfidy. The

circumstances of the times in which he lived, whilst they

afford a dispy of his political wisdom and military valour,

furnish some apology for the dissimulation and artifice to

which he occasionally recurred. To his relations and friends

he was grateful and liberal; and to his enemies tolerant and

forbearing. At the head of his armies he was bold in action,

skillful in stratagem, patient of fatigue, ready to improve his

advantages, and capable of rifting from his defeats with in-

exhaustible vigour. The discipline of the army was revived,

and a new generation of men and soldiers was created by the

example and precepts of their leader. In his intercourse

with the Latins, he was patient and artful; and he contrived

with superior policy to balance the interests and passions of

the champions of the first Crusade. In a long reign of 37

years, he fathomed and pardoned the envy of his equals; the

laws of public and private order were reformed; the arts of

wealth and science were cultivated; the limits of the empire

in Europe and Asia were enlarged; and the Comnenian

crown was transmitted to his children of the third and

fourth generation. Yet the difficulties of the times betrayed

some defects in his character; and he exposed his memory to

some just or ungenerous reproach. His happiness was

interrupted, and his health was impaired by public cares;

the patience of Constaninople was fatigued by the length

and severity of his reign; and before he expired, he had lost

the love and reverence of his subjects. Although he had

applied the riches of the church to the service of the state,

and thus incurred the displeasure of the clergy; yet they

applauded his theological learning and ardent zeal for the

orthodox faith, which he defended with his tongue, his pen,

and his sword. His character was degraded by the super-

flition of the Greeks; and whilst he founded an hospital for

the poor and infirm, he ordered the execution of an heretic,

who was burnt alive in the square of St. Sophia. The

iniquity of his moral and religious virtues was suspected by his

intimate associates. In his last hours, when he was pressed by

his wife Irene to alter the succession, he raised his head,

and breathed a pious exclamation on the vanity of the world.

The ingrate reply of the empress, says a popular historian,

may be inscribed as an epitaph upon his tomb: "You die,

as you have lived—all hypocriss." Gibbon's Hist. vol. xvi.


p. 294. vol. xi. p. 455, &c.

ALEXII. succeeded his father Manuel, as emperor of the Ealt, in 1180, at the age of 12 years. His mother

Maria, a princess of Antioch, assumed the government during the minority of her son, and his education was

neglected, that the might retain her absolute authority. During

this period, ANDRONICUS, who had long aspired to

the empire, attempted to attain the object of his ambition. Hav-

ing, notwithstanding the profligacy of his character, gained

a considerable degree of popularity, he was declared pro-

tector of the empire during the minority of Alexius; and

when he had caused the young prince to be solemnly crowned,

he contrived to be chosen his colleague in the empire. Not-

withstanding a solemn oath, that he accepted the dignity

merely for the purpose of protecting the young emperor and

supporting his authority, he soon caused him to be mur-

dered; and dragging him with a bow-string, terminated his

life in the third year of his reign, and 15th of his age. Anc.


ALEXII. III. Angelus, obtained the empire of the Ealt, A.D. 1157, by the exclusion of his brother Isaac

Angelus, whom he threw into prison and deprived of sight.

Indolent and devoted to pleasure, he committed the conduct

of public affairs to his wife Euphrosyne, who oppressed the

people, and sold the chief offices of state to the highest bidder.

In 1202 he released his brother Isaac, and called his son

Alexius, who was then about 12 years of age, to the court,

and treated him as his child. But the young prince, sided

by his father Irene, wife to Philip, emperor of Germany,

escaped from Constantinople, and landed safe in Sicily.

Philip, by means of his ambassadors, engaged the French

and Venetians in his support. A treaty for this purpose

having been concluded between them and Alexius, the army

of these united powers embarked for Corfu, which was the

place of rendezvous; and proceeded to Constaninople.

Upon their approach the usurper escaped; and in 1203 the

young prince was associated with his father Isaac in the

crown, and crowned with extraordinary pomp and solemnity.

The usurper, who had fled to Zamora, a city of Thrace, at

the foot of mount Hymus, after various adventures, fell

into the hands of his son-in-law, Theodore Lascaris, against

whom he had instigated the Turks, who put out his eyes,

and hurled him up in a prison at Nice, in Asia, where he died


173. Gibbon's Hist. vol. i. p. 185, &c.

ALEXII. IV., the son of Isaac Angelus, was crowned

associate with his father in the empire in 1203. The price

of his rescue and advancement to the throne involved him

in difficulties that were insuperable. This was no less than

the fulfilment of the Eastern empire to the pope, the

favour of the Holy Land, and a contribution, as soon as

he was invested with the crown, of 200 thousand marks of

silver. After his accession to the throne, he prevailed on

the Marquis of Montferrat, at the price of 1600 pounds of

gold, to lead him with an army round the provinces of Eu-

rope; but upon his return, as his father was defied on

account of his impieties, he was hated as an apostate, who

had renounced the manners and religion of his country. His

secret covenant with the Latins was divulged or suspected.

The people, and especially the clergy, were devoutly at-

tached to their faith and superstition; and every convent,

and every shop, refounded with the danger of the church

and the tyranny of the pope. Whilst complaints were mut-

tered against the emperor and his government, and quarrels

were fomented between the Greeks and Latins, Constan-

tinople was visited with a calamity which might be justly imputed

to the zeal and indiscretion of the Flemish pilgrims. A

conflagration spread, during eight days and nights, above a

league in front, from the harbour to the Propontis, over the

most populous regions of the city. By this outrage the

name of the Latins became still more unpopular. Upon

the return of Alexius, his youthful mind hesitated between

gratitude and patriotism; between the fear of his subjects

and that of his allies. By his feeble and fluctuating conduct

he lost the esteem and confidence of both; and whilst he

invited the Marquis of Montferrat to occupy the palace, he

suffered the nobles to conspire, and the people to arm, for

the delivery of their country. The Latins, regarding his

critical situation, repeated and enforced their demands,

and reminded the emperor, with menace and insult, of his

own
own engagements and of their services. The threats of the
Latins concurred with the dissatisfaction of the Greeks in
exciting a tumult among the people; of which a prince of
the house of Ducas, named Mourouze, perfidiously
availed himself to cause a vacancy of the throne. Alexius,
buried by the art of this false friend into a prison, was
frowned, stripped and loaded with chains; and, after staying
some days the biterms of death, he was poisoned, or
strangled, or beaten with clubs, A. D. 1204. The emperor
Isaac Angelus soon followed his son to the grave; if, indeed,
ALEVIN V. DUCAS, a man named Mourouze, on account of
the close junction of his black and shaggy eye-brows, was,
according to Ducaugue, second cousin of young Alexius,
whom he betrayed and dethroned, and succeeded to the em-
por on his death. The people having advanced him to the
throne, he found it necessary to prepare for the defence of
the metropolis of the empire. The princes of the Crusades
renewed their claims, and paying the fate of Alexius, the
late emperor, to which, indeed, they themselves had con-
tributed, resolved to revenge his death. Accordingly they
mustered all their forces in Asia, crossed the Straits, and
closely besieged the Imperial city, both by sea and land.
Mourouze, who was a man of warlike talent and expe-
rience, made a vigorous defence; but in a nocturnal attack,
his forces were overpowered; the city was taken and plundered,
and the capture of it was attended with a dreadful slaughter.
The emperor made his escape in the night with Euphrosyne,
wife of the late usurper Alexius Angelus, and her daughter
Eudoxia, for whose sake he had abandoned his lawful wife.
This happened, A. D. 1204. Mourouze sought an asylum in the camp of his father Alexius, in
Thrace, and was at first received with smiles and honours;
but as the wicked can never love, and should rarely trust,
their fellow-criminals, he was feized in the bath, deprived of
his eyes, stripped of his troops and treasures, and turned
out to wander an object of horror and contempt to those
who with more propriety could hate, and with more justice
could punish, the afflains of the emperor Isaac and his son.
As he was privately passing over into Asia, he was feized by
the Latins of Constantinople, and condemned, after an open
trial, for the murder of young Alexius, to an ignominious
death. His judges, having debated the mode of his ex-
ecution, resolved, that he should ascend the Theodosian
column, a pillar of white marble, 147 feet high, and be cast
down headlong from its summit, and dashed in pieces on the
pavement, in the presence of a great multitude of spectators.
225, 223, &c.
ALEVIN, CHARLES, an elegant historical poet, in the
reign of King Charles 1., was educated at Sidney college,
Cambridge, and afterwards settled as usher in a grammar
school in London. In 1621 he published two poems,
titled, "The Battles of Creaffey and Poictiers, under the
fortunes and valour of king Edward 111. of that name, and
his sonne Edward, prince of Wales, named the Black." Having
left the school in which he was usher, he was domestic tutor
to the son of Sir Edward Sherburne, afterwards clerk of the
ordinance and commissary general of the artillery to king
Charles, at the battle of Edgehill. In this situation he
wrote another elaborate poem, in honour of king Henry VII,
and that important battle which gained him the crown of
England. This poem was published in 1638, and entitled,
"The historie of that wise and fortunate prince Henrie, of
that name the seventh, king of Englaand; with that famed
batt alle, fought between the said king Henrie and Richard
111., named crook-baek, upon Redmore, near Bofworth,"
He died about the year 1640; before which time he pub-
lised a translation, "The History of Euralus and Lucro-
tin," from a story found among the Latin epistles of
ALEZONNE, in Geography. See Alezonne.
ALFABUCBLLIS, in Ancient Geography, a place of
Italy, assigned by Ptolemy to the Marit.
ALFACAR, in Geography, a town of Spain, five miles
north-call of Granada.
ALFANDEGA D'FE, a small district of Portugal, in
the province of Tras-o rz Montes, containing 15 parishes.
ALFANDIGA, the name of the custom-house at
Li-bon.
ALFAQES, among the Spanish Moriscoes, were the
clergy, or those who instructed them in the Mahometan
faith. The alfaques differed from the Morabites, who au-
terd to monks, or religious, among Christians.
ALFAQES, or ALFACQS, in Geography, a sea-port
town of Spain, in the province of Catalonia, on the coast
of the Mediterranean, situate on an island of the same
name at the mouth of the Ebro, three leagues south of
Tortoli.
ALFAQES, a town of Africa, in the kingdom of
Tunis.
AL-FARABI, or ABU NASIR, in Biography, a native of
Balch Farah, a town of Afa Minor, called by the Turks
Ottar, was a celebrated philosopher of the school of Bagdad,
and flourished in the 10th century. His parents were opulent,
but he preferred the study of philosophy to the acquisition
or possession of affluence. He studied mathematics and med-
cine, but chiefly excelled in logic. Such were his talents
and learning, that great men and princes were emulous to
confer upon him honours and emoluments. But Al-Farabi
delined every offer of this kind, and preferred, either
through his love of philosophy or from a natural gloominess
of temper, solitude, and an abstemious life. During
winter, he constantly slept on straw, his countenance was
always sorrowful, and he found consolation in nothing but
philosophy. Lamenting the imperfection and vanity of
human life, and dreading intercourse with the world as de-
structive of innocence, he employed his time in study, and
devoted his whole attention to the perusal of the writings of
Aristotle. He wrote 60 distinct treatises on the Aristotelian
philosophy, which were popular and much read among the
Arabians, and also among the Jews. Many of his books
were translated from Arabic into Hebrew. The subjects
on which he principally treated were logic, metaphysics,
and physics. Among his writings on the half of these subjects
are mentioned treatises on optics and astronomy. Abulf.
230.
ALFARO, in Geography, a town of Spain, in the
province of Old Castile, on the south side of the Ebro, and
on the borders of Navarre, nine miles north-west of Tudela.
ALFAS, small islands of the Red Sea, over against the
west side of Arabia Felix. They are only inhabited occa-
sionally by the Moors, who come thither from other islands
for the sake of the pearl fisheries. N. lat. 17° 10'. E. long.
45° 44'.
ALFATERN'A, in Ancient Geography. See Necera.
ALFAYATES, in Geography, a town of Portugal, in
the province of Beira, situate on an eminence, near the confines
of Spain, is walled and guarded, but contains only one
parish.
parish, and about 500 inhabitants: distant 150 miles north-east from Lisbon. N. lat. 40° 9', W. long. 5° 42'.

ALFDOUCH, a name given by the Moors to a fort of vernicelli, which they make of flour and water, and which they are very fond of in their entertainments.

ALFECCA, or ALFETA, in Astronomy, a name given to the star commonly called Ursa Minor.

ALFILLERAO, in Geography, a town of Portugal, in Estremadura, is a small place lying on the sea, and contains about 700 inhabitants.

ALFELD, a town of Germany, in the circle of Lower Saxony, and bishopric of Hildesheim, licite on the Leine, 30 miles south of Hanover, and 15 south of Hildesheim.

ALFELD, a town of Germany, in the circle of the Lower Rhine, four miles north of Nidendam.

ALFELDHA, a mountain of Peria, in the province of Kirman, 12 leagues south of Sirjan.

ALFENUS, VAKUS, in Biography, a Roman Civilian, was a native of Cremona, and a disciple of Servius Sulpitius. He flourished about the year of Rome, 754, or the first of the Christian era. Horace mentions him as a person who had been brought up in the mechanical occupation of a shoemaker, or, as others say, a barber; and who had quitted this humble station for a profession in which he had acquired reputation.

"Alfenus vafer, omni
Ab ejusri instrumento artis, claufaque taberna,
Sutor erat; lapios operis fic optimus omnis
Ett opifer, fic rex folliis." SAT. lib. i. fat. iii. v. 130.

"Shuffling Alfen, though he left his awl,
And threw away his lathe, and that his hall,
And broke his threads, yet was a clobber still:
Thus every tradesman, if he hath but skill,
Is wife, and therefore only king." CEECH.

Ammianus Marcellinus refers to Alfenus, (lib. xxx. c. 4. p. 458 ed. Grorov.) as a person whose authority was held in high estimation in matters of law. Aulus Gelius also, citing his works, (lib. vi. c. 5.) speaks of the author as a diligent inquirer into antiquities; "Rerum Antiquarum non incerius." He wrote 40 books ofDigests, which are mentioned in the index of the Pandects, and several books of Collections. Paulus, the Civilian, made an abridgment of his works. Some say that he was a confidant, and an old scholar on Horace's staff, that he was buried at the public expense. If this be the case, Alfenus, without enriching himself by his profession, had acquired an honest reputation, and exhibits an encouraging example to those who possess talents, for rifting from a lower sphere of life to eminence by professional merit. Gen. Dict.

ALFEE, in Geography, a town of Arabia, 24 leagues south of Medina.

ALFET, in Ancient Gauls, signified a large caldron, which contained boiling water, in which a person accosted plunged his hand and arm as far as the elbow, by way of trial or purgation.

ALFIDENA, in Geography, a town of Naples, in the province of Abruzzo Citera, 15 miles south-south-east of Sulmona; famous in the war of the Samnites.

ALFONSUS, in Biography. See ALPHONSUS.

ALFORD, Michael, an English Jesuit, was born in London, in 1587, and entered into the Society in 1607. Having studied theology and philosophy in Spain, and at Louvain, and having resided some years at Rome, he returned to England, where he was arrested, but afterwards released.

From that time he remained in England for 30 years as a missionary from the society. He died at St. Omer's, in 1652, and left two treatises in ecclesiastical history, viz. "Britannia illustrata," printed at Antwerp, 1641, in 400; and "Annalen Ecclesiasticorum Britannorum," printed also at Antwerp. Gen. Dict.

ALFORD, in Geography, a town of England, in the county of Lincoln, about six miles from the sea, 23 miles north of Bolton, and 142 miles north of London. It has a market on Tuesday, and two fairs on Whitsunday and Nov. 6, for cattle and sheep. It has a spring, which contains a purging fluid, and has been recommended in the fevers, jaundice, and other glandular obstructions, and also in disorders of the kidneys and bladder. N. lat. 53° 30'. E. long. 8° 15'.

ALFORD, a township of America, in Berkshire county, in the Massachusetts, containing 577 inhabitants, 145 miles west from Bolton.

ALFORDSTOWN, a small town in Moar county, North Carolina.

ALFRAKAN, Ahmed Een Kotheer Al Fargani, or, as others calls him, Mohammed Een Kithir Al For- gani, in Biography, a celebrated Arabian astronomer, was born at Fargan, in Sogdiana, now Samarinda, and flourished in the beginning of the ninth century, under the Caliphate of Al-Mamun. His work in Arabic, entitled, "The Elements of Astronomy," consists of 30 chapters or sections, and is formed upon the principles of Protony, whom the author often cites. Of this work we have a Latin translation by Johannes Hifpalensis, in the 12th century, printed at Ferrara, in 1453; and at Nuremberg, in 1537, with a preface by Melanchthon; another by James Chirchman, from the Hebrew version of James Antohi, at Frankfort, in 1590, to which the editor added an ample commentary; in which he compares the calendars of the Romans, Egyptians, Persians, Syrians, and Hebrews, and shews the correspondence of their years; and a third, which is the best, by Golus, with the Arabic text and valuable notes on the first nine chapters, printed in 1669, at Amsterdam, in 4to., after the death of the editor, which he did not live to finish. Mod. Un. Hist. vol. ii. p. 202. Hutton's Mat. Dict. vol. i. p. 63.

ALFRED, or ALFRED THE GREAT, in Biography, the glory of our Saxon monarchs, was the youngest son of Ethelwolf, king of the West Saxons, and was born at Wantage, in Berkshire, in the year 849. Ethelwolf, being a man of great piety, sent Alfred to Rome, when but five years of age, to receive confirmation, some say regal union, from the hand of pope Leo the Tenth; who, on performing the sacred rite, hailed him his son, and foretold, it is said, his future greatness.

His three elder brothers, Ethelbald, Ethelbert, and Ethelred, having regularly succeeded to the throne, and died after short reigns, Alfred assumed the sovereignty, and was crowned at Winchester, in 871. He had given early and manifold proofs of courage and ability; though his inclinations are known to have rather dispelled him to the calm pleasures of literature, than the tumult of war. But scarcely had he time to attend to his brother to the grave, ere he found occasion to fight for the crown to which he had succeeded; for the Danes had poured innumerable multitudes into the island; and in that very year eight battles were fought between them and the Saxons. The strength of the latter was almost equal, while that of the former was confidingly renewed, after every loss, by fresh hordes of their countrymen. At length a bloody engagement took place at Wilton, in Wiltshire; where, though the king was defeated with some
left, yet so great was the dread in which the Danes stood of Alfred's military fame, that they made a treaty with him, and retired from his dominions into those of the king of Mercia. Soon after, however, they broke their faith; for, meeting on the road to Mercia a body of English horse, advancing in an unprepared manner, as they relied on the late treaty of peace, they slew the greater number of them, and took possession of Exeter. The king presently marched against them with what forces he could collect, and beleaguered them there. At this juncture Alfred's fleet engaged a numerous one of the enemy, sunk many, and dispersed the rest; which, attempting to gain some of the English ports, were driven on the coasts and wholly lost. The Danes now again found for peace, and gave hostages; but in 877, having obtained new reinforcements, they entered Wiltshire in such numbers, and so weared out the Saxons, that the latter could no longer be persuaded to make head against them. Some retreated into Wales; others submitted to the usurpers; and Alfred himself found it necessary to be governed by circumstances. He, therefore, assumed a disguise, the most likely to conceal him; not giving up either his hopes or his courage; but waiting for a proper opportunity to recover his throne, and restore to their liberties his sorely oppressed people.

Having properly disposed of his family, and settled a mode of communication with his tried and faithful friends, he engaged himself in the service of his own near-herd, to take the care of his cows. Affer and another ancient writers relate, as a proof how completely Alfred was disguised, that one day the good woman of the house let a cake before the fire to bake, where the king was busily employed in trimming his bow and arrows; on coming back, and finding it burnt, through neglect of turning it in her absence, she supposed how she could have done, she chid him very severely for his inattention; and told him, that though he could not turn the cake, he knew he was ready enough to eat it. We find, however, that Alfred soon left this relation; and with his wife and some of his most valued friends, found a safe retreat in the isle of Athelney (Malden), in Somersetshire, which was secured by vall morasses around it, and accessible only by one very obscure passage. The following story, which we receive from William of Malmsbury, has been cited to shew the extremities to which this most illustrious monarch was now reduced. A pilgrim came to his castle and requelled alms. The queen informed Alfred, that they had only one small loaf remaining, which was insufficient for themselves and their friends, who were gone abroad in quest of fish and other food, though with small hopes of success. "Give the poor man one half of the loaf," said the king; "that he could feed 5000 men with five leaves and two fishes can certainly make that half of the loaf suffice for more than our necessities." The man was relieved accordingly; and the king's benevolence was recommended by the early arrival of his people with an unexpectedly ample store of fresh provisions. [A beautiful painting from this subject, by Mr. Well, was presented by the venerable Alderman Boydell some years since to the stationers company; in the court-room of whose hall it still remains an honourable specimen of the artist's talents, and a lasting memento, among many others, of the liberality of the donor.]

When the king had been about a year in this retreat, being informed that some of his subjects, under the brave Odun, Earl of Devonshire, had routed a great army of the Danes, killed their chiefs, and taken their magical standard, he issued letters, giving notice where he was, and inviting his nobility to come and consult with him. Before they came to a final determination, however, Alfred, disguised as an itinerant Harper, frollicked into the enemy's camp; where, without sulpiuation, he was admitted not only to the tents of the common soldiers, but even into those of the chief Danish commanders. Having examined every thing with great accuracy, he retired again to Athelney, and summoned with all privacy his faithful subjects to meet him in arms at Exeter, in the forest of Selwood, in Wiltshire. They obeyed the summons; and, fired with the hopes of liberty, fell upon the Danes with incredible alacrity, at a moment when the latter had not the least suspicion of a foe, and imagined Alfred to be a mere fugitive from them.

The attack was made at Athelney, now Eddington. Those of the enemy who escaped from this battle policed themselves of a neighbouring castle, or fort, almost ruined, which they fortified immediately, and in which they were quickly beleaguered by the victorious Saxons; but, after a long and close siege, the Danes were forced to surrender at discretion. Alfred, however, treated them like a merciful prince, giving up to such of them as should embrace the Christian religion, the whole kingdom of the East Angles, on condition that they should oblige the rest of their countrymen to quit the island, and prevent, as far as they were able, the landing of any more foreigners. For the performance of these articles he took hostages; and when, in pursuance of the treaty, Guthrum, the Danish chief, came, with thirty of his chief officers, to Alfred, to be baptized, the king anointed for him at the font, gave him the name of Ethelstan, and adopted him for a son. His friends and himself were nobly entertained for twelve days, and then dismissed with royal presents.

One advantage the Saxons derived from these Danish turning Christians; which was, that now they kept their oaths, and removed into the country which had been assigned to them, where they quietly settled themselves.

In 884 a new swarm of Danes landed in Kent, and laid siege to Rochester; but the inhabitants boldly defended the place till the king, reaching them with an army, compelled the enemy to raise the siege, and return once more to France. Alfred, having now some leisure, resolved to repair, refortify, and repopulate the ancient city of London, which he had lately recovered from the Danes; and meant to keep as a frontier. Accordingly, he placed a garrison in it, and made Eadeldan governor thereof, whom he had created Earl of Mercia, and to whom he gave his daughter Ethelfleda in marriage.

After some years of rest, however, Alfred was again called into the field; for the Danes, being foundly beaten in the west of France, in 893, came with a fleet of 250 sail on the east coast of Kent, and, landing, fixed themselves at Appledore. Shortly after came another fleet up the Thames, consisting of 80 vessels, and, having landed the soldiers, built a fort at Middleton, now Milton. Alfred drew together a considerable army; but, before he marched toward the enemy, compelled the Danes settled in Eex and Northumberland, to give him hostages for their good behaviour. He then moved toward the invaders, and prudently pitched his camp on a spot between the enemy's two armies, thereby preventing their junction. A great body, however, moved into Eex, and thence, crossing the river, came into Surry, at Farnham. Alfred drew together a considerable army; but, before he marched toward the enemy, compelled the Danes settled in Eex and Northumberland, to give him hostages for their good behaviour. He then moved toward the invaders, and prudently pitched his camp on a spot between the enemy's two armies, thereby preventing their junction. A great body, however, moved into Eex, and thence, crossing the river, came into Surry, at Farnham.
against Haftings (Hastings), and the other Danes, he marched suddenly to the Well; and, falling on the rebels before they were aware, pursued them to their ships with great slaughter. The enemy, falling next to Sussex, began to plunder the country near Chichester; but the order which Alfred had everywhere established suffered here, without his presence, for the defence of the place; and the rebels, meeting with a new repulse, in which many of them were killed, and some of their ships taken, were obliged again to put to sea. They now failed to join Haftings, the Danish chief, at Beamnecot, in Essex, who, thus strengthened, and encouraged by the absence of the king, ravaged all the lands belonging to Alfred in Mercia. The troops which the king had left in London for the security of that place, now, in turn, took their advantage of the absence of the Danish chief on his incursions in the Mercian district, suddenly attacked Beamnecot, and carried the place by storm, in which they found Haftings' wife and his two sons, who had been lately baptized. Thlese they made prisoners, and sent to Alfred; who, with greatness of soul unparalleled in these times, returned them to Haftings, with this message, "I make no war upon women and christian women." Haftings, returning from his pillaging expedition, gave up all for lost, and once more faced for peace; which Alfred, with his usual clemency, granted, on his giving fresh hostages for his fidelity in time to come.

Before Alfred had time to recruit himself, another Danish leader, whose name was Laf, came with a great army out of Northumberland, and destroyed all before him. Having invaded North Wales, plundering or destroying everything, this army divided itself, one body returning to Northumberland, the other marching into Essex, and taking possession of a small island called Melreseg (Mersea). Here, however, they did not long remain; for, having parted, some sailed up the river Thames, and others up the Lea-Road; where, drawing up their ships, they built a fort not far from London, which proved a great reliance upon the citizens, who went in a body and attacked it, but were repulsed with great loss. This obliged the king, when harvest-time came, to encamp with a body of troops in the neighbourhood of the city, in order to cover the reapers from the incursions of the Danes. Riding one day by the side of the river Lea, a thought struck him, that by narrowing the channel and cutting some trenches, and thus turning the course of the stream, he might render the Danish ships unable, by leaving them on dry ground. This was promptly executed; the pagans, struck with astonishment and dismay, quitted their ships and camp, and fled to Quatford, where they were finally broken and subdue. Such of the Danish ships as could be got off, the Londoners carried into their own road; the rest they burnt and destroyed.

The Danes, ever unquiet, in a short time began again to invade the territories of the Weal Saxons, both by land and sea; but their chief enterprises were in the way of piracy, under the command of Sigefert, a Northumbrian, who, well acquainted with Alfred's naval preparations, had framed vessels of a new construction, larger, longer, and swifter than the English; but the king, improving on his invention, caused a number of galleys to be built with all possible expedition, of still greater bulk, swifter in sailing, and loftier than those of the Danes, some of them carrying 60 rowers. With these, falling upon the enemy while they were exercising their ravages in the Weal, he took twenty of their ships; and, having tried all the prisoners at Winchester, he gave judgment that they should be hanged as piratical mur-
To probability, he is and certain and obvious and legible. He is not to be found in the records of his people; for in them the records are not to be found for every minute offence; a particular well worthy of notice and imitation.

"So strange and sudden a change (says Sir John Spelman) did Alfred's institutions produce in the kingdom, that whereas before there was no travelling without arms, there was soon not only safe passage, but all places became so secure, that when the king (for experiment's sake) caused golden bracelets to be hung up in the cross-ways, they seemed to deride the passerby, for no man durst by his hands on them. Virgins might safely travel anywhere alone. Nay, faith Ingulphus, if one left his money all night in the highway, he might come the next morning, and be sure to find it whole and untouched."

This glorious monarch seemed designed by providence for the period in which he lived, whether we view him in a military or a civil capacity, to rescue from total ruin a nation on the brink of destruction, averted from without by powerful enemies, and within by sloth, ignorance, and the want of almost every virtue. He was not deficient in any qualification that might render him beloved by his subjects, and dreaded by his enemies. Though of a weak bodily constitution, his mind was active, vigorous, and enterprising, and fitted to animate every branch of good government. He it was who first taught us to defend ourselves by a naval force, now the glory of our country and the terror of the world! His public virtues (sage Sir John) were worthy of the imitation of princes, and his private life was not stained with any vice: he was a tender husband and parent, the friend and companion of men of letters, learned himself, affable, generous, and, to conclude the whole, eminently pious. He erected public schools in different parts of the kingdom; founded, or at least repaired, the university of Oxford, gave preferment to none but such as had made some proficiency in knowledge; and having thus reigned upwards of 28 years, the delight of his own subjects, and the admiration of all Europe; he died the 25th October, A.D. 900, as some historians flate; but the variations are many between this and the following year.

That so great and good a prince should not have had his actions recorded by any one among the learned of his own subjects must appear surprising. This task, however, was left to be performed by a stranger (Alfr.) taken as it were from among his enemies, a people whose hatred to the Saxon name was notorious; for such at that time were the Welsh. This historian has not, perhaps, written with the elegance of more modern times; yet his life of Alfred is certainly far above what could be expected from the rudeness of the age in which he lived. His descriptions are nervous and spirited; and he conveys to us an image of the most perfect and accomplished monarch that ever graced the English throne.

It has been observed of Alfred, that, had he not been a king, he would have been eminently distinguised as a grammarian, a rhetorician, a philosopher, an historian, a musician, and architect. Of his original writings and translations the following account has been collected:


Historicus quondam fecit me Beda latinum, Alfred rex Saxo translatuli ille prius.

20. "Ætopi fakulae. Ætopi's fables," which he is said to have translated from the Greek both into Latin and Saxon.—21. "Pfallerin Davidicum, lib. i. David's Psalter, in one book." This was the last work that the king attempted, though surprising him before he had finished it; it was however completed by another hand, and published at London in 1640, in quarto, by Sir John Spelman.


The foregoing article has been chiefly compiled from Biog. Brit.—Hume.—Blackstone.—Spelman.—And Wife's Annales Alfredi Magni.

Alfred, an English bishop, was a monk of Malmebury, of the order of St. Bennet, and preferred to the see of Exeter. He flourished in the 11th century, and was one of the most learned men of his time. He wrote a treatise, "De Naturis Rerum," "The Life of

Alfred, of Beverley, an ancient historian, wrote his "Annales," published by Hearne, between the years 1148 and 1150, and borrowed his account of the British kings from Geoffrey of Monmouth. Biog. Dict.

ALFRETON, in Geography, a small market town of England, in the county of Derby, is said to have been founded by king Alfred. It has a considerable corn market on Friday. It is 15 miles north of Derby, and 142 north of London.

ALFTER, a borough, citadel and seignory in the electorate of Cologne and prefécture of Bonn, belonging to the counts of Salm-Reifferscheid.

ALGA, in Natural History, a species of millepora, with thin semicircular lamina, forming horizontal leaves; the millepora lichenoides of Solander and Ellis, found, of a red, purple, yellow and white colour, on the shores of Cornwall.

ALGÆ, in Botany, an order or division of the cryptogamia clafs of plants. — It is one of the seven families of natural tribes into which the vegetable kingdom is distributed in the Philosophia Botanica of Linnaeus; the 57th order of his fragments of a natural method; and the second genus of the fection marine aut fluviales in the clafs algen vulgo habite of Tournefort.

The plants belonging to this order are described as having their root, leaf, and stem, entire, or all one. The whole of the sea weeds and various other aquatic plants are comprehended under this division.

From their admitting of little distinction of root, leaf, or stem, and the parts of their flowers being equally incapable of description, the genera are distinguished by the situation of what is supposed to be the flowers or seeds, or by the resemblance which the whole plant bears to some other substance.

The parts of fructification are either found in fauces or tubercles, as in lichen; in hollow bladders, as in the fuci; or differed through the whole substance of the plants, as in the ulva. The substance of the plants has much variety; it is flesh-like or leather-like, membranaceous or fibrous, jelly-like or horn-like, or it has the resemblance of a calcareous earthy matter.

Mr. Valley has lately shewn that some of the plants that belong to this order possess a high degree of irritability.—Withering's Arrangement of British Plants, vol. i. p. 369.

Lamarck distributes the algæ into three fections; the first comprehends all those plants, whose fructification is not apparent or seems doubtful. Those commonly live in water, or upon moist bodies, and are membranous, gelatinous, or filamentous. To this fection he refers the byfü, conferva, ulva, tremella and varce. The plants of the second fection are distinguished by their apparent fructification, although it be little known, and they are formed of parts which have no particular and fenible opening or explosion at any determined period; their substance is ordinarily crustaceous or coriaceous. They include the taffella, ceratoferna and lichen. The third fection comprehends plants which have their fructification very apparent, and distinguished by characteristic parts which open at a certain period of maturity for the escape of the fecundating dust or seeds. These plants are more herbaceous, as to both their substance and their colour, than those of the other two fections, and are more nearly related to the mosses from which they do not essentially differ. Their flowers are often contained in articulated and very callictic filaments. To this fection are referred the riccia, bläna, anthococcs, targiona, hepatica, and jungermannia. In the Linnaean system the algæ are divided into two clæses, e. c. the terræfera and aquatica. The former include the anthococcs, bläna, riccia, lichen, and byfüs; and the latter are the alva, focus, and conserva. The fructification of the algæ, and particularly of those called aquaticæ, is denominated by a judicious botanist, the opperibium estra-terium. See observations on this order of plants by Dr. Goodenough and Mr. Woodward in the Linnaean Transatl., vol. iii. p. 84, &c.

ALGA, in Ancient Geography, an inland city of the island of Euboea, called by Strabo, the Euboic Algae, and also Æges, to distinguish it from two other cities of that name, one in Achaea, near the river Cratis, the other in Æolis. He conjectures, that from this place, in which was a temple of Neptune, the ÆGean Sea derived its name. See Ægæ.

ALGA, a port of Italy, which Antonine places three miles from Centumcellae.

ALGAGIOLA, a sea-port town of Corsica, defended by a caille, situated upon a rock, was almost destroyed by the mal-contentes in 1731, but soon afterwards rebuilt. N. lat. 42° 20'. E. long. 9° 45'.

ALGAIIRA, or ALIARA, in Geography, a river of Spain, joins the Cabriel, before its confluence with the Xucar.

ALGALA, or ALGALIE, in Surgery, the Arabian name of a hollow curved instrument employed for drawing off the urine, or searching for a stone, by introducing it into the bladder. The more common appellation of this tube is Catheter of Sound, which fee.

ALGARDI, ALESSANDRO, in Biography, an eminent artist, both as a sculptor and architect, was born at Bologna in 1598, and became a disciple of Julius Caesar Conventi, under whose instruction he acquired a reputation in sculpture little inferior to that of Michael Angelo Buonarroti. He also frequented the school of the Caracci, where he probably learned the art of engraving; his style, resembling that of Angolino Caracci, being bright and free, and his execution with the graver bold and open. Having studied at Mantua and Venice, he visited Rome in 1625, and became acquainted with Domenichino, by whom he was recommended to the statue work of the chapel Bandini, which he was painting. For some years he was chiefly employed in repairing antiques and modelling for goldsmiths; but his talents and reputation procured him superior work. Among his performances may be recounted a statue of St. Philip de Neri, in the facrcil of the fathers of the oratory at Rome; his group of the decollation of St. Paul for the Barnabite church at Bologna, and the tomb of Leo XI. at St. Peter's. One of his capital performances was a bas-relief in this cathedral, representing the story of Attila, 32 feet by 18, which was the labour of four years, and which gained him universal applause, with the honour of knighthood and the golden cres. His bronze figure of Innocent XI. is reckoned the fineft of the statues of the popes in Rome. A crucifix likewise, called, by way of distinction, Alard's crucifix, has been much celebrated, and often copied by many of the principal artistes. He was affiduous and quick in execution, but becoming corpulent and infirm, he was under a necessity of recurring to the assistance of his pupils, of whom he formed an eminent school. He died in 1654, at the age of 52 years. His disposition was lively, his conversation pleasant, and his manners irreproachable. He lived in celibacy, and left his property to his sifter. His works, which are held in high estimation, though the air of his heads...
is thought to be artificial and studied, and he is somewhat of a mannerist in the folds of his draperies, are chiefly at Rome and the neighbouring villas. Two plates, supposed to be his, are "Christ upon the Cross," a large upright print, and "the Deliverance of the Souls from Purgatory," a small oval. Strutt. Gen. Biog.

ALGAROTTI, Domenico, in Chemistry, is a white oxide of antimony, procured by adding pure water to the butter or oxymurate of antimony, whereby the metallic oxide is precipitated. This, when thoroughly calcinated and dried, forms the powder of algaroth, and is a very perfect oxide of antimony. It was first applied, as an internal medicine, by Algarotti, an Italian physician. It is not now to be found in the later pharmacopoeias of the London college, but if it were of any advantage to increase the number of antimonial medicines, it might deserve notice from the cafe with which it is prepared, and the apparent uniformity of its composition. It is retained by the Edinburgh pharmacopoeia, and in several parts of the continent as the basis of the chemic tartrate, or tartarized antimony. See Antimony, moriate, and tartrate of.

ALGAROTTI, Francis, in Biography, was born at Padua in 1712, and finished his studies in the university of Bologna. He commenced his travels at an early period, and, in his visit to England acquired a predilection for the Newtonian philosophy, which led him to write his "Newtonianismo par le Dames;" or, "Newtonianism for the Ladies," dated at Paris in 1736. This popular work is formed upon the model of Fontenelle's "Phantastique;" and is equally instructive and amusing. At Berlin Algarotti was kindly received by Frederick, king of Prussia, who conferred upon him the knighthood of the order of Merit, the title of count, and the post of chamberlain. By Stanislaus, king of Poland, who admitted him into his court, he was appointed a privy-counselor. His character was that of a man of letters, a philosopher, and one of the first connoisseurs in Europe in the arts of music, painting, sculpture, and architecture. He contributed much to the improvement of the Italian opera, and wrote verses in his own language replete with sentiment and imagery. An associate at Berlin represents him, somehow in the style of satire, "as full of wit, affectation, and self-love; a Frenchman in genius, an Italian in character, disagreeable in society, often exposed to royal whimsies, and receiving them as tokens of favour." After his return to Italy he died at Pisa, May 24, 1764. The monument which he erected for himself indicates both his taste and his vanity. The epitaph for his tomb was written by himself; "Hic jacet Algarottis, sed non omnia," A collection of his works, in Italian, was published at Leghorn in 1765, in four volumes, 8vo. They consist of his dialogues on the philosophy of Newton, of essays on the fine arts and on commerce, of dissertations on subjects of language, of historical disquisitions, and of miscellaneous, literary and philosophical. An edition of them, in French, was published at Berlin in 1772, in eight vols. 8vo.; and they have been also translated into English and other languages. They display genius and profound reflection, but are thought by competent judges deficient with respect to nature and simplicity. He designed and engraved, for his amusements, several plates of heads in groups, one of which, containing 15, in the antique style, is dated Feb. 15, 1744. Nouv. Dicr. Hall. Strutt.

ALGARVA, in Geography, the most southern province, ancienly a kingdom of Portugal, is bounded on the south and west by the ocean, and hence formerly called Canusus or wedge, on the east by Andalusia, from which it is separated by the Guadiana, and on the north by a ridge of hills, called Serra de Algarve and Serra de Monchique, which divides it from Alentejo. The greatest length of this province is about 90 miles, and its greatest breadth is about 28. The city of Lagos is properly the chief town of Algarve, though Tavira is now the residence of the governor, and Faro pos sesses the greatest part of its trade. According to the last enumeration in 1780, this small kingdom contained 93,472 inhabitants, of whom 6,521 were inhabitants, and 5,573 labourers. It lies close to the sea, and is well cultivated; but this cultivation does not extend more than two leagues inland, beyond which are desert hills. Corn is not grown in sufficient quantity for the consumption; the oil that is produced here is reckoned the best in Portugal, and exported. The wine is white, and good. Figs constitute the principal produce of Algarva, and it also abounds with almonds, particularly about Tavira, which are exported. This is the only province of Portugal from which dried figs are exported. Oranges are also cultivated, especially in the vicinity of Monchique and Faro; and these, together with oranges and Spanish reeds, are exported from Faro to England. Algarva is the first of the only country, Greece excepted, where Caprisification is practised; for there are some varieties of figs, which are very excellent, that fall to the ground immature, unless they are punctured by the ants. The common people live principally on fish, and are very poor, because the province, though capable of great cultivation, is shamefully neglected. A quantity of tunny-fish is taken on the coasts, and particularly in the neighbourhood of Lagos and Cape St. Vincent, and salted in May and June; the colour of it resembles that of smoked beef; and a storehouse for it is opened at Lisbon, where it is found to supply the place of cod. The inhabitants, in general, are leis reined and polite than the other Portuguese, but they are celebrated through the country for their wit and warmness. They are also considered as the best mariners in Portugal; and on this account many of them emigrate, and most of the boatmen at Lisbon come from this province. The mountains that separate this province from Alentejo, rise in height as they approach the north, and consist of argillaceous slate and sandstone. They are arid and barren, and only bear the cactus ladaniferus, with two other kinds of cactus. The province is for the most part surrounded by lime-stands, which exhibit few, if any, traces of cultivation. Olive-trees and fig-trees, and also the cere-trees (ceratonia silatica) grow abundantly in the corn-fields, and afford a plentiful shade. The fan palm (chamaerops calabria or Linnaeus) is very plentiful throughout the whole of this province; and its fan-shaped leaves are used for making the baskets in which figs are packed. Link's Travels through Portugal, p. 432, &c.

ALGAS, a river of Spain, which runs into the Mata rana, near Nonaspes, in Aragon.

ALGATRANE, a fort of pitch found in the bay formed by the point of the Cape of St. Helena, on the south of the Isle of Panta.

ALGAU. See Algow.

ALGAVAREIA, the language anciently spoken by the Moors of Spain, which was a fort of Arabic, and was contradistinguished from the Algamaia.

ALGAZEL, in Geography, a learned Arabian, about the beginning of the 12th century, was a native of Tos, or Tus, in Asia, and celebrated among the Mahometan theologians for his numerous tracts in defence of the Mahometan religion, against the Jews and Christian; particularly for his "Demonstration of Islamism," and his "Treatise on the Unity.
ALGEBRA, a general method of resolving mathematical problems, by means of equations: or, it is a method of computation by symbols, which have been invented for expressing the quantities that are the objects of this science, and also their mutual relation and dependence. These quantities might probably, in the infancy of the science, be denoted by their names at full length; these, being found inconvenient, were succeeded by abbreviations, or by their mere initials. And, at length, certain letters of the alphabet were adopted as general representations of all quantities; other symbols or signs were introduced to prevent circumlocution, and to facilitate the comparison of various quantities with one another; and, in consequence of the use of letters or species, and other general symbols, or indeterminate quantities, algebra obtained the appellation of species, literal, and universal arithmetic.

The term, algebra, is of Arabic original; but its etymology has been variously assigned by different writers. Among the Arabians, from whom it was immediately transmitted to us, this science was denominated al-gibra almucabalah; and as gibara signifies to restore, and kabala to compare or to oppose, the names formed from these words, with the prefix al, denote the science of restitution and comparison, or resolution and equation; and thus understood, they express its nature with sufficient precision. Accordingly, Lucas de Burgo, the first European author on algebra, calls it the rule of restoration and opposition. Others, however, have derived it from Geber, either the name of a celebrated mathematician, to whom they ascribe the invention of the science; or from the word gaber, which forms, with the particle al, the appellation algebra, signifying, according to Golins, in his Arabic lexicon, a reduction of broken numbers or fractions to integers. Herbelot says, that gaber or giber is never used by the Arabs for algebra, without adding the word mokabalah; but Dr. Russell (Hist. Aleppo. v. i. 167) observes, that, at Aleppo, and also in books, al-Gibr is used sometimes alone, as well as in conjunction with mokabalah. This science has been distinguished by other names, besides algebra. Lucas de Burgo calls it parte maggiore, or the greater art, by way of contradistinction to common arithmetic, which is denominated parte minore, or the lesser art. The Italians called it regola de la cosa, or rei; cosa with them signifying rei, or things, and being used in the same sense with ratios, or root; whence proceeded the terms rule of cofs, and coffic numbers, denoting the root, square, cube, and other powers. Other Italian and Latin writers have called algebra regular rei et census, or the rule of the root and square; census being used for improvement, or the square. By a corruption of censae were formed xensus, for the square, and the term zenzic applied to the square root. Hence also the characters $x$, $z$, $\chi$, deduced from the letters $x$, $z$, $\chi$, became the symbols of rei, xensus, and census; or, in our mode of expression, the root, square, and cube; just as $R$ and $s'$, formed from $R$, $s$, are used with us as the signs of radicals. Wallis's Algebra, c. i. p. 3.

Some authors have defined algebra, as the art of resolving mathematical problems; but this is rather the idea of analysis, or the analytic art in general, than of algebra, which is only a particular branch of it. Algebra, duly considered, consists of two parts: viz. the method of calculating magnitudes or quantities, represented by letters or other characters, and the mode of applying these calculations to the solution of problems. When algebra is applied to the solution of problems, all the quantities that are involved in the problem are expressed by letters, and all the conditions that serve to denote their mutual relation, and by which they are compared with one another, are signified by their appropriate characters, and they are thus thrown into one or more equations, as the case requires; these is called synthetic, or composition. When this has been done, the unknown quantity is discharged by a variety of analytical operations from those that are known, and brought to stand alone on one side of the equation, whilst the known quantities are on the other side; and thus its value is investigated and obtained. This process is called analysis or resolution; and hence algebra is a species of the analytic art, and is called the modern analysis, in contradistinction to the ancient analysis, which chiefly regarded geometry and its application.

The origin of algebra, like that of other sciences of ancient date and gradual progress, is not easily ascertained. The most ancient treatise on that part of analysis, which is properly called algebra, now extant, is that of Diophantus, a Greek author of Alexandria, who flourished about the year of our Lord 350, and who wrote 13 books, though only five, "Arithmeticon," of them are preserved, which were printed together with a single imperfect book on multangular numbers, in a Latin translation by Xylander, in 1575, and afterwards in Greek and Latin, with a Comment, in 1621 and 1670, by Gaspar Bachet, and M. Fermat. Toloze, fol. These books do not contain a treatise on the elementary parts of algebra, but merely collections of some difficult questions relating to square and cube numbers, and other curious properties of numbers, with their solutions. In his prefatory remarks, addressed to one Dionysius, for whose use Diophantus probably wrote, he recites the names and generation of the powers, the square, cube, 4th, 5th, 6th, &c., which he calls dynamis, cubus, dynamodinamis, dynamocubus, cubicubus, according to the sum of the indices of the powers, and he marks those powers with the Greek initials; and he expresses the unknown quantity by $x$, $y$, or the number, simply marking it in the solutions by the final $x$, and denoting the monads, or indefinite unit, by $y$. In his researches on the multiplication and division of simple species, he shews what powers they produce, and observes that minus (−) multiplied by minus, produces plus (+); and that minus multiplied by plus produces minus: the mark which he uses for minus is $\pi$ or the $\pi$ inverted and curtalled: but he has no mark for plus, expressing it by a word or conjunctive copulatives. Supposing his reader acquainted with the common operations, viz. addition, subtraction, multiplication and division of compound species, he proceeds to remark on the preparation of the equations that are deduced from the questions, which we call reduction of equations, by collecting like quantities together, adding quantities that are minus, and subtracting those that are plus, called by the modern treatment,
transposition, so as to bring the equation to simple terms, and then depressing it to a lower degree by equal division, when the powers of the unknown quantity are in every term: which preparation or reduction of the complex equation, being made, or reduced to what we call a final equation, this author proceeds no further, but merely says, what the root, or re. ignita, is, without giving any rules for finding it, or for the resolution of equations; thus intimating, that rules for this purpose were to be found in some other work, either of his own or of some other person. The chief excellence of Diophantus's collection of questions, which seems to be a series of exercises for rules which had been elsewhere given, is the neat mode of abridgment or notation, which being once made, the reduction to the final equation is easy and obvious. This work indicates much accurate knowledge of the science of algebra, in some of its most abstract parts. But as the author reduces all his notations to a simple equation, or a simple quadratic, it does not appear how far his knowledge extended to the resolution of compound or affected equations.

Algebra, however, seems not to have been wholly unknown to the ancient mathematicians, long before the age of Diophantus. We observe the traces and effects of it in many places, though it seems as if they had intentionally concealed it. Something of it appears in Euclid, or at least in Theon upon Euclid, who observes that Plato had begun to teach it. And there are other instances of it in Pappus, and more in Archimedes and Apollonius. But it should be observed, that the analysis used by these authors is rather geometrical than algebraical; this appears from the examples of it that occur in their works; and therefore, Diophantus is the first and only author among the Greeks, who has treated professedly of algebra. Our knowledge of the science was derived, not from Diophantus, but from the Moors or Arabs; but whether the Greeks or Arabsians were the inventors of it has been a subject of dispute. It is probable, however, that it was much more ancient than Diophantus, because his treatise seems to refer to works similar and prior to his own. Abulfaragius, an Arabic historian, in one place attributes the invention, or rather the arrangement of the principles and rules of the science, to Diophantus; and from him we learn that the arithmetic of Diophantus was translated into Arabic by Mahomet Ben-Yahya Baziani; but in another place he seems to ascribe it to Mahomet Ben Mufa, who is said to have lived about the year 850 or 900, and who was the first of the Arabs by whom this science was cultivated. Cardan attributes the invention of it to this Arabian, and apprehends that he obtained the appellation of Geber from this art. See Bib. Arab. et Hisp. tom. i. p. 370, cited by Ruffell in his Hist. of Aleppo, vol. ii. p. 409. Stevinus is of opinion that this science, and other parts of mathematics, were much more ancient among the Orientalists, than any learning they derived from the Greeks. Dr. Wallis adopts the sentiments of those who think that the Arabs derived this science, as well as the knowledge of numeral figures, from the Persians, and originally by their means from the Indians; and he alludes, as a presumptuous evidence of their not having derived it from the Greeks, that the name they give it, viz. al-giaib wa-al-makala, seems to have no affinity with any Greek name. We may here add, that some vestiges of algebraical calculation have been discovered among the Brahmins; particularly rules for the solution of certain arithmetical questions, with which it would seem that nothing but algebra could have furnished them. Asiatic Researches, vol. ii. p. 468, note 487, 495. But wherever algebra was invented or first cultivated, the science, and also the name of it, were transmitted to Europe, and particularly to Spain, by the Arabsians or Saracens, about the year 1100, or somewhat sooner. It seems to have taken the lead in the cultivation of this science, after its introduction into Europe: and Lucas Pacioli, or Lucas de Burgo, a minorite Franciscan friar, was the first author on the subject, who wrote several treatises in the years 1476, 1481, 1478, 1487, and 1509; but his principal work, entitled, "Summa Arithmetice et Geometricz, Proportionumque et Proportionaliatum," was published in Italian at Venice, in 1494, and again in 1523. In this work he mentions several writers, and particularly Leonardo Pifanos, placed by Volthus about the year 1400, or a little sooner, and laid to the first of the moderns who wrote of algebra, from whom he derived his knowledge of those sciences; and from the treatise of Leonard, not now extant, the contents of that of Lucas were chiefly collected. The age of Leonard of Pisa has been usually fixed to the end of the 13th century. But it now appears by a manuscript of this algebraist, discovered in a library of Italy, by M. Targioni Tozetti, and communicated to M. Coffelli, a canon regular of Parma, that he lived two centuries before this period, or at the commencement of the 13th century: and of course that Italy is indebted to him for its first knowledge of algebra. His proper name was Bonacci, and he was a merchant, who traded in the sea ports of Africa, and the Levant. Being ambitious of obtaining an acquaintance with the sciences that flourished amongst the Arabs, and particularly that of algebra, he travelled into their country. Accordingly his arithmetic was published in 1222, and a new enlarged edition of it appeared in 1228. At this time, however, algebra was not a part of arithmetic, but was distinguished from it by the title of "Ars Magna," or "Arte Maggiore." From the manuscript above-mentioned it appears, according to Coffelli's account of it, that Leonard had penetrated deeply into the secrets of the algebraic analysis; that he was particularly acquainted with the analysis of problems similar in kind to those of Diophantus, and with the resolution of equations of the second degree; and that he had written a treatise, entitled "De Numeri Quadrati," which is not extant, but which Coffelli has restored from some fragments of Lucas del Burgo. This Leonard, therefore, must not be confounded with another called Camillus Leonardus of Pefaro, author, as it is said, of a book entitled, "Liber deitteratus canonum aequatorii motuum coelestium calcule, &c." Pifaur. 1496, 410. Montucla Hist. Math. tom. ii. p. 716. This Leonard of Pisa made long voyages into Arabia and other eastern countries, in order to gain the knowledge of the mathematics. Montucla (tom. i. p. 536) mentions two other persons who previously to this discovery were thought to have preceded Leonard in this department of science, viz. Paul dell'Abaco, who lived towards the end of the 14th century, and who is supposed by Ximenes, to have been the first person in Italy who used algebraic equations; and also Prodocimo Belmando, or Beldomando, of Padua, who was supposed to have shared with Leonard the honour of introducing into Italy the knowledge of algebra. His book, entitled, "Dell Algorismus," was printed in 1483, but dated at the beginning of the 15th century. Lucas informs us, that algebra came originally from the Arabs, and never mentions Diophantus; from which circumstance it has been inferred that this Greek author was not then known in Europe. From the book of Lucas de Burgo, we learn, that the knowledge of the Europeans in his time, or about the year 1500, extended no further than to quadratic equations, of which they used only the positive roots; that they admitted only one unknown quantity; that they had no marks or signs for either
either quantities or operations, excepting some few abbreviations of the words or names; and that the art was merely employed in resolving certain numerical problems. If the science had been carried further in Africa than quadratic equations, which was probably the case, as we may infer from an Arabic manuscript, said to be on cubic equations, deposited in the library of the university of Leyden, by Warner, the Europeans had at this period obtained only an imperfect knowledge of it. The publication of the works of Lucas de Burgo promoted the study, and extended the knowledge of algebra; so that about the year 1505, Scipio Ferreus, professor of mathematics at Bononius, in Italy, discovered the first rule for solving one case of a compound cubic equation. The next Italian, who distinguished himself by the cultivation and improvement of algebra, was Hieronymus Cardanus, of Bononius, who published nine books of his arithmetical writings, in 1550, in Latin, at Milan, where he practiced his profession, and read lectures on mathematics; and in 1545, a tenth book, containing the whole doctrine of cubic equations. Cardan denominates algebra, after Lucas de Burgo and others, "Ars Magna quam vulgaris Coffian vorunt," or "Regula Algebraivaracce," and attributes the invention of it, on the authority of Leonard of Pisa, to Mahomet, the son of Moses, an Arabian. He adds, that this supposed inventor left four rules or cases, which perhaps only included quadratic equations; that afterwards three derivatives were added by an unknown author, supposed by some to have been Lucas Paciolius, and afterwards three other derivatives for the cubic and sixth power, by another unknown author; all which were resolved like quadratics; that then Scipio Ferreus, about 1505, found out the rule for the case "cubum et ternum numerorum equalium," or, as it is now written, \(x^3 + bx = c\), which he represents as a thing admirable; that the same discovery was made in 1535, by Tartalea, who, after a train of intricate dispositions, deduced it to him (Cardan); and that he and his former pupil, Lewis Ferrari, much augmented and extended the cases; and that all the demonstrations of the rules are his own, except three of Mahomet for quadratics, and two of Ferrari for cubics.

To Cardan's treatise on cubic equations is annexed, "Libellus de Aliza Regula," or the Algebraic Logigues, in which he treats of some of the more abstruse parts of arithmetic and algebra, especially cubic equations, with many additional attempts for the solution of the irreducible cases, \(x^3 = bx + c\).

From a minute and accurate detail of the contents of Cardan's treatise, given by Dr. Hutton, it appears, that the improvements in algebra, communicated by this author, are as follow. To the rules furnished by Tartalea for resolving these three cases of cubic equations, viz. \(x^3 + bx = c\), \(x^3 = bx + c\), and \(x^3 + c = bx\); he has added rules for all forms and varieties of cubic equations, demonstrating these rules geometrically, and fully discussing almost all sorts of transformations of equations in a manner before unknown. Cardan also appears to have been well acquainted with all the real roots of equations, both positive and negative, or, as he calls them, true and fictitious, both of which he occasionally used. He has also shewn that the even roots of positive quantities are either positive or negative; that the odd roots of negative quantities are real and negative; but that the even roots of them are impossible, or nothing as to common use. He also well knew the number and nature of the roots of an equation, partly from the signs of the terms, and partly from the magnitude and relation of the co-efficients. He also knew that the number of positive roots is equal to the number of changes of the signs of the terms; that the co-efficient of the 2d term of the equation is the difference between the positive and negative roots; that when the second term is wanting, the sum of the negative roots is equal to the sum of the positive roots; how to compose equations that shall have given roots; that changing the signs of the even terms changes the signs of all the roots; that the number of roots failed in pairs; that the impossible roots, as they are 10 called, were always in pairs; to change the equation from one form to another, by taking away any term from it; and to increase or diminish the roots by a given quantity. It appears also, that Cardan had a rule for extracting the cube root of such binomials as admit of extraction; that he often used the literal notation \(a, b, c, d, \&c.\); that he gave a rule for biquadratic equations, fusing all their cases; and that, in the investigation of that rule, he made use of an assumed indeterminate quantity, and afterwards found its value by the arbitrary assumption of a relation between the terms; that he applied algebra to the resolution of geometrical problems; and that he was well acquainted with the difficulty of the irreducible cases, and that he devoted much time and attention to the solution of it; and that, though he did not completely succeed, he laid down rules for many particular forms of it, and shewed how to approximate very nearly to the root in all cases whatever.

Tartalea, or Tartaglia, of Brescia, was a contemporary of Cardan, and published his book of algebra, entitled, "Quatuor Invenzioni diversi," in 1546, at Venice, where he resided as public lecturer in mathematics. This work was dedicated to Henry VIII. of England, and consists of nine books, the last of which contains all those questions that relate to arithmetic and algebra. These questions comprehend exercises of simple and quadratic equations, with complex calculations of radical quantities, evincing the skill of the author in the science of algebra. He retained the notation of forms of expression used by Lucas de Burgo, calling the 1st power of the unknown quantity "cosa," the 2d power "cena," the third "cubi," \&c.; and he expressed the names of all the operations in words, without any contractions, except the initial R for root, or radicality. What is most remarkable in this collection of questions is the discovery of the rules for cubic equations, together with the various circumstances that attended it. The first two of these were discovered by Tartalea in 1530, viz. those for \(x^3 + ax = c\), and \(x^3 = ax + c\); and the rules for the other two cases, viz. \(x^3 + bx = c\), and \(x^3 = bx + c\), were discovered, in 1535, at Venice. Under question 31, we have an account of the correspondence between Tartalea and Cardan on the subject of cubic equations, and on the manner in which Cardan drew from him his discoveries relating to them; for a more particular account of which, see the biographical article Cardan. Tartalea published at Venice, in 1556, &c. a very large work, in folio, on arithmetic, geometry, and algebra; the latter of which is imperfect, and extended no farther than quadratic equations, his death having prevented his completion of it.

The contemporaries of Tartalea and Cardan were Michael Stifelius and Scheubelius. The "Arithmetica integra" of Stifelius was printed at Norimberg in 1544, and is, says Dr. Hutton, an excellent treatise on arithmetic and algebra. The invention of the science is ascribed by this author to Geber, an Arabian alchemist. The improvements of Stifelius and other Germans beyond those of the Italians, recited in Cardan's book of 1539, were as follow. He introduced the characters \(+, -\), \(\sqrt{\cdot}\), for plus, minus, and root, or radix; and the initials \(\sqrt{2}, \sqrt{3}, \sqrt[3]{5}, \sqrt[5]{5}, \sqrt[5]{\sqrt[3]{5}}, \&c.\) for the powers 1, 2,
G and buf 2, Chrillopher J 1552, in the for but, in; and and Nunez, the Among cxpo.ieiits and q, numeral appears, or p - Such the 1567, 2 • but for Poituguefe. The following, verfalis," He is reduced a fundamental of particulars, and he denominates "radix collecti" but when they may be reduced to common furd, he unites them into one number. He proceeds in a similar manner with cubic furs and 4th roots. He remarks the different kinds of binomial and residual furs, correponding to the feveral irrational lines in the 10th book of Euclid's Elements; and gives the following general rule for extracting the root of any binomial or residual \( a \pm b \), in which one or both parts are furs, and \( a \) the greater quantity, viz. that the square root of it is 

\[
\sqrt{\frac{a + \sqrt{a^2 + b^2}}{2}} \pm \sqrt{\frac{a - \sqrt{a^2 - b^2}}{2}},
\]

which he illustrates by examples. As he takes no notice of cubic equations, it is probable that though they were known in Italy he had not heard of them in Germany.

Robert Recorde, in England, published the first part of his arithmetic in 1552, and the second part in 1557, under the title of "The Whetstone of Witte, which is the second parte of Arithmetike; containing the Extraction of Roots, the Coflike Practife, with the Rule of Equation ; and the Works of Surde Numbers." What is principally new in this work comprehends the extraction of the roots of compound algebraic quantities, the use of the terms binomial and residual, and the use of \( = \), as the sign of equality.

The Algebra of Poletarius was printed at Paris in 4to. in 1553, under this title, "Jacobi Peletarii Cenomani, de Oculta Parte Numerorum, quam Algebra vocant. Lib. duo." This work, containing an account of rational and irrational or furd quantities, is an ingenious treatise on those parts of the science that were then known, cubic equations excepted; and the discoveries or improvements of the author are the following, viz. that the root of an equation is one of the divisors of the absolute term; that trinomials may be reduced to simple terms by multiplying them by compound factors; and that a feries both of square and cube numbers may be constructed by addition only, that is, by adding successively their several orders of differences.

Peter Ramus wrote his Arithmetic and Algebra about the year 1566. He expresses the powers by \( l, g, r, b \) \& \( q \), the initials of latus, quadratus, cubus, and biquadra-
Recognitions, et Emendatione;" and were not published till the year 1615, by Alexander Anderson, an Ingenious Scot, with various corrections and additions. Vieta's improvements comprehend the following particulars: He first introduced the general use of the letters of the alphabet to denote indefinite given quantities. Accordingly he expresses unknown quantities by the vowels A, E, I, O, U, and the known ones by the consonants B, C, D, &c. He also invented many terms and forms of expression which are in present use; as co-efficient, affirmative and negative, pure and affected or affected, uncertain, homogeneum adjectives, homogeneous comparations, and the line or vinculum over compound quantities, thus $A + B$: And his method of arrangement is to place the homogeneously comparing, or absolutely known term on the right-hand side alone, and all the terms that contain the unknown quantity, with their proper signs, on the other side. He somewhat improved the rules and modes of reduction for cubic and other equations; he showed how to change the root of an equation in a given proportion: he deduced the cubic and biquadratic, &c. equations from quadratics, not in Harriot's way by composition, but by squaring and otherwise multiplying certain parts of the quadratic; and as some quadratic equations have two roots, the cubic and other equations raised from them will also have two roots and no more. In this way Vieta perceived the relation which the two roots bear to the co-efficients of the two lowest terms of cubic and other equations, when they have only three terms, namely, by comparing them with similar equations thus raised from quadratics; and, vice versâ, what the roots are in terms of such co-efficients. He also made some observations on the limits of the two roots of certain equations; he stated the general relation between the roots of certain equations and the co-efficients of the terms, when the terms are alternately plus and minus, and none of them are wanting, or the roots all positive. He extracted the roots of affected equations by a method of approximation similar to that for pure powers; and moreover, he gave the construction of certain equations, and exhibited their roots by means of angular sections.

In the History of Algebra, Albert Girard, an ingenious Dutch or Flemish mathematician, already mentioned, as the editor of Stevinus's arithmetic, who died about the year 1629, devotes particular notice, on account of his work, entitled, "Invention Nouvelle l'Algeeber, tant pour la Solution des Equations, que pour reconnoître le nombre des Solutions qu'elles reçoivent, avec plusieurs choses qui sont nécessaires à la perfection de cette divine Science," printed at Amsterdam in 1629, 4to. From an analysis of this work, it appears that Girard was the first person who understood the general doctrine of the formation of the co-efficients of the powers from the sums of the roots, and their products, &c. He was also the first who understood the use of negative roots in the solution of geometrical problems; who spoke of the imaginary roots, and understood that every equation might have as many roots real and imaginary, and no more, as there are units in the index of the highest power, and who applied the denomination of quantities left than nothing to the negative; and he was the first person who discovered the rules for summing the powers of the roots of any equation.

The next person who claims particular notice in the history of this science is Thomas Harriot, who died at the age of 60 years in 1621, and whose Algebra was published by his friend Walter Warner, in 1631. The book is a folio volume, and entitled, "Artis Analyticae Praxis, ad Equationes Algebraicas nova, expedita, et generali methodo, solvendas," a work, says Dr. Hutton, in all parts of it, shewing marks of great genius and originality, and the first instance of the modern form of algebra in which it has ever since appeared. On the foundation laid by Harriot, says Dr. Wallis (Algebra, p. 126), Des Cartes, without naming him, hath built the greatest part, if not the whole, of his algebra or geometry; without which, as he adds, "that whole superstructure of Des Cartes (I doubt) had never been." A summary of Harriot's improvements is as follows: He introduced the uniform use of the small letters $a, b, c, d, &c.$ expressing the unknown quantities by the vowels $a, e, i, o, u,$ and the known ones by the consonants $b, c, d, &c.$ and joining them together in the form of a word to represent the product of any number of these literal quantities; and prefixing the numeral co-efficient, separated from the quantity connected with it by a point, thus $a \cdot b$ for a root, he placed the index of the root after the radical mark $\sqrt{a}$, as $\sqrt{a^2}$, for the cube root. He also introduced the characters 7 and 2 for greater and less; and in the reduction of equations, he arranged the operations in separate files or lines, setting the explanations in the margin on the left hand, for each line. In these respects he introduced and established the form of algebra as it now exists. He also shewed the universal generation of all the compound or affected equations, by the continual multiplication of so many simple ones, or binomial roots; thus plainly exhibiting to the eye all the circumstances of the nature, mystery and number of the roots of equations, with the composition and relations of the co-efficients of the terms; from which many of the most important properties have been since deduced. He also improved the numeral exegesis, or extraction of the roots of all equations, by clear and explicit rules and methods, drawn from the foregoing generation or composition of affected equations of all degrees.

Oughtred, contemporary with Harriot, was born about the year 1573, and died in 1660. His "Clavis" was published in 1631. In this work he chiefly follows Vieta, in the notation by the capitals A, B, C, D, &c. and in the designation of products, powers and roots, with some few variations. To him we owe the separation of decimals from the integers after this manner, 21.56, and having the decimals annexed without a denominator. In algebraical multiplication Oughtred either joins the letters in a word, or connects them by the sign $\times$, introducing for the first time this character of multiplication; thus, $A \times A$, or $A^2$, but he omits the vinculum of Vieta. He also introduces many useful contractions in the multiplication and division of decimals, such as that of inverting the multiplier for reducing the number of decimals, and abbreviating the work, that of omitting one figure at a time, of the divisor, and that of dividing by the factors of a number instead of the number itself, and many others. He states proportion thus, 7.9 : 28.36: and denotes continued proportion by $\ldots$ With respect to the genesis and analysis of powers he follows Vieta; and he furnishes a table of the powers of the binomial $A + E$ as far as the 10th power, with all their terms and co-efficients, or unless, an expression which he adopts from Vieta. He gives particular directions for the reduction of equations, corresponding to their various forms; he uses the letter $u$ after $\sqrt{a}$, for universal, instead of the vinculum of Vieta; and he observes, that the signs of all the terms of the powers of $A + E$ are positive, and those of $A - E$ alternately positive and negative. He subjoins many properties of triangles and other geometrical figures, and the first instance of applying algebra to geometry, so as to investigate new geometrical properties; and after the algebraical solution of each problem, he commonly deduces and gives a geometrical construction adapted to it. He gives also a good
tact on angular sections; and concludes the work with the
numeral resolution of affected equations, in the manner of
Vieta, but more explicit.

In 1637 Des Cartes first published his geometry, which
may be considered as an application of algebra to geometry,
and not as a separate treatise on either of these sciences. As
Dr. Wallis has manifested too great a degree of partiality to
our countryman Harriot, and ascribed to him discoveries
which had been made by Vieta and others; and as Bombelli and
M. d. Gua, in the Memoirs of the Academy of Sciences for
1745, cited in the last edition of the Encyclopaedia, have
devoted far into the other extreme, in madly extolling the
discoveries of Vieta, and those of Des Cartes, to the prejudice
of Harriot, we shall avail ourselves of the analysis of Dr.
Hutton in giving a particular account of the improvements
and inventions of Des Cartes, that our readers may be able to
form their own judgment in this controversy. Montucla
indeed seems to have accorded an impartial account of the
discoveries both of Harriot and Des Cartes, intermingled
with reflections, which some may think less candid than
they ought to have been, on our illustrious countryman Dr.
Walls. Hist. des Mathem, tom. ii. p. 106—116. This excellent
historian of the mathematical sciences acknowledges, that Des Cartes might possibly have been in
debted to Harriot, though he thinks it very probable that the
principal discoveries of his geometry were anterior to the
date of the work of the English analyst. It ought however
to be recollected, that the work of Harriot was posthumous,
that he lived to the age of 68, and that his discoveries, at a
period when the spirit of enquiry was excited, might have
been communicated to men of science, between whom an
interest must have subsisted, long before he died. Montucla,
by a way of balancing the account between Des Cartes and Harriot,
or rather between Wallis and the partial advocates of Des
Cartes, intimates, that if Des Cartes was indebted to Harriot,
the latter was under no less important obligations to Vieta,
whose works were published before the year 1600. To
strengthen the presumption that this might have been the
cafe, he alleges, on the authority of Sherburn, the transla-
tor of Manilius, that Vieta had for some time employed an
English secretary, or amanuensis, whose name was Nathaniel
Torporky: and as this Torporky was frequently in familiar
intercourse with Harriot at the table of the Duke of North-
tumberland, he suggests the probability of his having com-
municated the ideas and manuscripts of Vieta, of which he
was the depositary to Harriot.

The geometry of Des Cartes (Apud Opera. tom. iii.
Francof. ad Moenum, 1695. 4to.) consists of three books.
The first is entitled, “De Problematibus, quse contruii
poufunt, adhibendo tantum rectas lineas et circulos.” In this
book the author shews how to accommodate arithmetical
computation to geometrical operations. For this purpose
he affirms a line to represent unity, and then, by means of
proportionals, teaches the method of multiplying, dividing,
and extracting of roots by lines. He proceeds to explain his
mode of notation, which is not different from that of other
authors. Affixing a and b for two quantities, their sum is
expressed by a + b, their difference by a — b, their product
by ab, their quotient by \( \frac{a}{b} \), the square of a by \( aa \) or \( a^2 \), its
cube by \( a^3 \), &c. the square root of \( a^2 + b^2 \) by \( \sqrt{a^2 + b^2} \),
and the cube root by \( \sqrt[3]{a^3 + b^3} \). He then
shews, as Stifelius had done, that there must be as many equa-
tions as there are unknown lines or quantities, and that all
of them must be reduced to one final equation, by extremi-
nating all the unknown letters except one; so that the final
equation will appear in the following forms, the character 20
being substituted for \( a = 0 \) equality, and the highest term or
power being on one side of the equation, and the other terms
with their proper signs on the other side:

\[ 20 \times b, \text{ or,} \]
\[ 20^2 - ac + b^2, \text{ or,} \]
\[ 20^2 + ac^2 + b^2 = c^2, \text{ or,} \]
\[ 20^2 + ac^2 + b^2 - c^2 + d^2, \text{ &c.} \]

Having defined plane problems, or such as can be re-
solved by right lines and circles, described on a plane
superficies, and having in the final equation only the 2d power of
the unknown quantity, he constructs such equations or quan-
dratics by means of the circle, and thus geometrically inves-
tigates the positive root or roots. But if the lines, by which
the roots are determined, neither cut nor touch, he observes
that the equation in this case has no possible root, or that the
problem is impossible. This book closes with the algebraical
solution of the celebrated problem, confounded by the
ancients, which is that of finding a point, or the locus of all
the points, from which a line may be drawn to meet any
number of given lines in given angles, the product of the
segments of some of them shall have a given ratio to that of
the red.

The second book is entitled, “De Natura Linearum Cur-
varam.” This is the first treatise of the kind on curve lines
produced by the moderns. The nature of the curve is here
expressed by an equation, containing two unknown or
variable lines, and others that are known or constant, as
\[ y^2 = cy + \frac{cxy}{b} + ay - ac. \] See Curve. We have in this
book a discovery of importance, as it is the first step towards
the arithmetic of infinites; and that is the method of tan-
gents, or of drawing a line perpendicular to a curve at any
point, which is an ingenious application of the general form
of an equation, generated in the method of Harriot, that has
two equal roots, to the equation of the curve. See Tan-
gent.

The third book, entitled, “De Constructione Problematum
Solidorum, et Solidae excedentiam,” commences with remarks
on the nature and roots of equations; and the author ob-
nerves, that they have as many roots as dimensions; and he
shews, after Harriot, that they may be obtained by multi-
plying a certain number of simple binomial equations to-
gether, as \( x - 2 \times 0, x - 3 \times 0, \) and \( x = 4 \times 0, \) which pro-
duce \( x^2 - 9x + 26x - 24 = 0, \) in which equation \( x \) has
three dimensions, and also three values, viz. 2, 3, and 4. He
here remarks, that some equations have their roots falsc, or,
as he expresses it, less than nothing, called by us negative,
and these he contradistinguishes to those that are true or
positive, which Cardan had before done. E. G. Let \( x + 5 = 0 \)
be multiplied by \( x^2 - 9x + 26 = 0, \) and we shall
have \( x^2 - 8x + 26 + 9x + 16x - 100 = \) 0, in which equa-
tion three roots, viz. 2, 3, and 4, are true, and one, viz. 5,
false. From the generation or composition of equations by
multiplication Des Cartes naturally deduces their resolu-
tion, depression, or composition, by dividing them by the
binomial factors which composed them; and hence he ob-
nerves, that this divisor is one of the binomial roots, and that
there can be no more roots than dimensions, or than such as
form with the unknown quantity \( x \) binomials that will ex-
cactly divide the equation, as Harriot had before shewn. Our
author adverts to other properties, most of which had been
noticed before; e.g. that equations may have as many true roots
as the terms have changes of the signs + and — , and as many
false
false ones as succedences of the same signs: which had before been partly shewn by Cardan and Vieta from the relation of the co-efficients and their signs, and more fully by Harriot. Hence Des Cartes was led to adopt Cardan's method of changing the true roots to false, and the false to true, by merely changing the signs of the even terms. He then directs his attention to other reductions or transmutations taught by Cardan, Vieta, and Harriot: such as increasing or diminishing the roots by any quantity, taking away the second term, and altering the roots in any proportion, and thus extracting the equation from fractions and radicals. Having observed (p. 76.) that the roots of equations, both true and false, may be either real or imaginary, which imaginary roots were first noticed by Albert Girard, as in the equation 

\[ x^2 - 6xx + 13x - 10 = 0, \]

that has only one real root, viz. 2; he proceeds to the depression of a cubic equation to a quadratic or plane problem, &c. that it may be constructed by the circle, by dividing it by one of the binomial factors, which, in Harriot's method, compose the equation. As Petarians had shewn that the simple root is one of the divisors of the known term of the equation, and Harriot had observed that this term is the continual product of all the roots; Des Cartes tried all the simple divisors of that term, till he finds one of them, which connected with the unknown quantity \( x \) by \( \pm \) or \( - \), will exactly divide the equation: and the same process serves for higher powers than the cubic. But when a divisor cannot be found in this way, in order to depress a biquadratic equation into a cubic one, he gives a new rule for dividing it into two quadratics, by means of a cubic equation, in the following manner (p. 79, &c.): Let

\[ x^4 - 2xx + 3yy \cdot \frac{9}{2} \rightarrow \infty, \]

and suppose it composed of these two

\[ + xx - yy + \frac{1}{2}yy \cdot \frac{7}{2} \rightarrow \infty. \]

Then find the root \( \frac{xy}{2} \) of the following cubic equation, viz. \( y^6 - 2yy^2 + \frac{pp}{4}y - yy \cdot qq \rightarrow \infty \), in which the sign of \( 2p \) is the same with that of \( p \) in the given biquadratic, but the sign of \( 4p \) contrary to that of \( r \) in the same equation; and the value of \( y \), deduced hence, and substituted for it in the two quadratics, and their two pairs of roots being taken, thefe are the four roots of the proposed biquadratic. E. C. Let the biquadratic be \( x^4 - 4xx + 8x + 35 \rightarrow \infty \), for which must be substituted \( y^4 - 8y^2 + 124yy - 64 \rightarrow \infty \); because the quantity called \( p \) being in this case \( -4 \), \( -8x \) must be substituted for \( 2y^2 \), and \( r \) being \( +35 \), \( \frac{16}{-140} \) \( yy \), or \( +124yy \), are the co-efficients of the terms of the two quadratic equations, and after multiplying the two together, determining their values by comparing the resulting terms with those of the proposed biquadratic equation. Des Cartes, after these reductions, in order to simplify and depress the equations as much as possible, proceeds to give the construction of solid and other higher problems, or of cubic and higher equations by means of parabolas and circles; observing, that the false roots are denoted by the ordinates to the parabola lying on the contrary side of the axis to the true roots: and he closes the book with illustrating these conftuctions by various problems concerning the trisection of an angle, and the investigation of two or four mean proportional.

Of the improvements contained in this work, it is observed by Dr. Hutton, that Des Cartes, with a view to the more easy application of equations to the construction of problems, mentions many particulars concerning the nature and reduction of equations, and states them in his own language and manner, which is usually more clear and explicit than that of others, and frequently accompanied with his own improvements. Here he chiefly followed Cardan, Vieta, and Harriot, especially the last; explaining some of their rules and discoveries more distinctly, and with some little variation in the notation, in which he puts the first letters of the alphabet for known, and the latter letters for unknown quantities, \( a \) for \( a a a \), &c. and \( \infty \) for \( = \). But Herigone had two years before used the same numeral exponents. Des Cartes explained or improved most parts of the reduction of equations, in their various transmutations, the number and nature of their roots, true and false, real and imaginary, as he calls them, or as they are denominated by Girard, involved; and also the depression of equations to lower degrees. His inventions and discoveries comprehend the application of algebra to the geometry of curve lines; the construction of equations of the higher orders, and a rule for resolving biquadratic equations by means of a cubic and two quadratics.

Fermat, who published Diophantus's arithmetic with valuable notes, was a contemporary of Des Cartes, and also a competitor for some of his most valuable discoveries. This ingenious mathematician, before the publication of Des Cartes's geometry, had applied algebra to curve lines, expressed them by an algebraic equation, and by the construction of equations of the 3d and 4th orders; and he had also discovered a method of tangents, and a method de maximis et minimis, approaching very nearly to the method of fluxions or increments, in the manner of treating the problems as well as in the algebraic notation and process. Fermat was also distinguished by his knowledge of the Diophantine problems.

At the period to which we have now referred, algebra had acquired a regular and permanent form; and from this time the writers on the whole, or detached parts of this science, became so numerous, that the limits of this article will scarce admit our quoting their names and publications, and much less doing justice to the improvements which this branch of mathematical science derived from their performances. In the course of our biographical articles, and on other occasions, we shall endeavour to supply the defects of the present cursory notice.

The geometry of Des Cartes engaged the attention of several mathematicians in Holland, where it was published; and also in France and England. Francis Schooten, professor of mathematics at Leyden, was one of the first cultivators of the new geometry; and in 1649 he published a translation of Des Cartes's geometry, from the French into Latin, with his own commentary and notes by M. de Beaune. In 1659, appeared an enlarged edition in two volumes, with several additional pieces by De Beaune, Hudde, Van Heurnet, De Witt, with some tracts by Schooten the editor. Rabel, a jefuit, published an elaborate commentary on the same
work; which was enriched with notes by James Bernoulli, and printed at Baill. Huygens also directed his attention to the algebraic analysis, and his inventions are cited by Schouten, who was his pupil. Sluusius, canon of Liege, published in 1659, "Mofolabunm, seu duo maxime proportionales per Circulum et Ellipsis, vel Hyperbolam, infinitis et rationibus," a new edition of which appeared in 1668, containing much valuable matter relating both to algebra and geometry.

But before the time of Des Cartes, as well as after the publication of his geometry, algebra engaged the attention of mathematicians. In 1619 several pieces of Van Collen, or Caten, were translated from Dutch into Latin, and published at Leyden, by W. Snell; one of which is a particular treatise on Surds. In 1621, Bachet published an edition of Diophantus with notes, and Fermat's edition, with additions, appeared in 1670. The same author published, in 1624, a treatise of mathematical recreations under the title of "Problèmes plaisans et délectables." Herigone, in 1634, published at Paris the first course of mathematics, in 5 vol. 8vo; containing a treatise on algebra, and bearing, says Hutton, evident marks of originality and ingenuity, in which he uses the notation by small letters, introduced three years before, by Harriot; he also expresses $x^2 + y^2$ by $a + b$, $x\cdot y$ by $a\cdot b$, and $x + y$ for equality, with other abbreviations. In his notation of powers and roots, he annexes to the letter the numerical exponents. Cavalierius, in 1635, published his "Indivisibles," and introduced a new era in analytical science and new modes of computation. He was followed in 1640 by Roberval, whose improvements in analytics were published in the early volumes of the memoirs of the Academy of Sciences, by De Billy, who published in 1643, "Nova Geometrica clavis Algebraa," and in 1670, "Diophantus redivivus;" and by Renaldine, who, in 1665, published in 4to, "Opus Mathematicum," both ancient and modern, with mathematical resolution and composition, enlarged and republished in folio, in 1665, 1667, and 1682, under the title of "Ars analytica Mathematica, in tres partes distributa," &c. This author uses the parentheses $(a + b)$ as a vinculum. In 1655, Dr. Wallis published his "Arithmetica Infinitorum," which greatly improved the indivisibles of Cavalierius, and led the way to infinite series, the binomial theorem, and the method of fluxions. The "Arithmetica Rhonii, or Rahni" Germanicae," was published in 1659, and translated into English in 1668, by Mr. Thomas Branker, with alterations and additions, by Dr. John Pell, who used a peculiar method of registering the steps of an algebraic process by means of marks and abbreviations in the margin, explaining each line or step, as Harriot had before done in words at length. Henschel was also the author of a German work, relating to equations, published in 1684. Mr. Kinckhuyzen, in 1661, published a treatise of algebra in Dutch, which Sir Isaac Newton, when professor of mathematics at Cambridge, used and improved, and which he designed to republish, with his method of fluxions and infinite series, but was prevented by the accidental burning of some of his papers. In 1667 Jacob Fergusun published his "Labyrinthus Algebrae," in 4to, Dutch; and in 1679, De Graaf gave a course of mathematics, in the same language and size. In 1665, or 1666, Sir Isaac Newton made several of his most valuable discoveries, though they were not published till a later period; such as the binomial theorem, the method of fluxions and infinite series, the quadrature, rectification, &c. of curves, the investigation of the roots of all sorts of equations, both numerical and literal, in infinite converging series, the reversion of series, &c.
the Philosophical Transactions the construction of cubic and
biquadratic equations, by a parabola and circle, with
improvements of the methods of Des Cartes, Baker, &c.; and
also a memoir on the number of the roots of equations,
with their limits and signs. M. Rolle, in 1699, published
in 4to, "Traité d’Algebre;" in 1699, "Une methode
pour resoudre les questions indeterminées;" and in 1704,
"Memoires fur l'inverse des Tangentes," and some other
pieces. Joseph Raphson, in 1690, published his "Ana-
lysis Equationum Universalis," which is a general
method of approximating to the roots of equations in
numbers. His "History of Fluxions" was published in
English and Latin in 1715. D. Halley published his "Currius
About the year 1691, &c. De Lagny published many
pieces on the resolution of equations in numbers; and in
1693 appeared a little volume, entitled, "Synopsis Alge-
braicae, opus posthumum Johannis Alexandri." An
ingenious tract on the numerical extraction of all roots, without
any previous reduction, was communicated in the Philo-
osophical Transactions, by Dr. Halley in 1691. This tract is
annexed to some editions of Newton's Universal Arith-
etic. Craig published, in 1694, in 4to, his treatise, "De
fig. curvel. quadraturis et locis geometricis," in which he
proposed a new formule for the construction of equations;
and this method was improved by Herman in 1737, in
Mem. of Peterburgh. Mr. John Ward of Cheteter, pub-
lished in 1695, "A Compendium of Algebra;" and in
1706, the first edition of "The Young Mathematician's
Guide," which has been much used. In 1696 the "Ana-
lyse des Infiniment Petits," of the Marquis de l'Hôpital,
was published, and a pothumous treatise by the same
author, entitled, "Traité Analytique des Sections Coniques,
et le Construction des lieux Geometriques," was pub-
lished in 1707. Mr. Ab. Dernouyr, in 1697, and succeeding
years, furnished the Philosophical Transactions with various
papers, containing improvements in algebra: in 1697, a
method of raising an infinite multinomial to any power,
or extracting any root of the same; in 1698, the extracti-
on of the root of an infinite equation; in 1707, an analys-
tical solution of certain equations of the 3d, 5th, 7th, &c.
degrees; in 1722, of algebraic fractions, and recurring fi-
eries; in 1738, the reduction of radicals into more simple
forms; and in 1730 he published "Miscellanea Analytica de Seci-
bus et Quadraturas," containing great improvements in
series, &c. Mr. Richard Sault published, in 4to, "A New
Treatise of Algebra, applied to numeral questions, and
geometry; with a converging series for all manner of ad-
jected equations," which series is Raphson's method of
approximation, which had been lately published. In 1698
Hugo d'Omer published his "Analyse Geometrique, &c;" in
which, by combining the algebraic analysis of the moder-
ners with that of the ancients, he resolved in an elegant
and simple manner many curious problems. In 1699 Hyac.
Christoph published at Naples, in 4to, a tract, entitled, "De
Constructione Equationum." Ozanum's algebra, contain-
ing the Diophantine analysis, was published in 1702, his
mathematical dictionary in 1691, and his course of maths-
tics, in 5 vols. 8vo, in 1693. In 1705, Dr. Harris, the
author of the "Lexicon Technicum," published a small
piece on algebra and fluxions. M. Guiniec published, in
1705, his "Application de l'Algebre a la Geometrie," in
4to. In 1706, Mr. Jones published his "Synopsis Pal-
nariorum Matheficos," which is a useful compendium of
the mathematical sciences; and in 1711, he published in
4to, a collection of Sir Isaac Newton's papers, entitled,
"Analysis per quantitatum fieries, fluxiones, ac differen-
tias; cum enumeratione linearum tertii ordinis." The first
edition of Newton's "Arithmetica Universalis, five de
Compositione et Resolutione Arithmetica liber," was pub-
lished by Whiston in 1707, and many editions have been
published since. It is of course included in Horsey's
edition of Newton's works. This tract was the text
book of the author at Cambridge; and though not de-
digned for publication, it contains many very consider-
able improvements in analytics; particularly in the nature
and transmutation of equations; the limits of their roots; the
number of impossible roots; the invention of divisors, both
fard and rational; the resolution of problems, arithmetical
and geometrical; the linear construction of equations; the
approximation to the roots of all equations, &c.
Commentaries have been published on this work for the
affin-
ities of beginners, by S'Gravafande, Caffilhon, Wilder, &c.
The "Analytique Demonbtre" of Reynen, was published
in 4to, in 1708, and in 1714, "La Science du Calcul;" and
reprinted with additions in 1736, under the title of
"Ufage de l'Analyse," &c. In 1709 an English transla-
tion of Alexander's algebra was published, with an appen-
dix, by Humphry Dilton. In 1715, Dr. Brooke Taylor
published his valuable work, entitled, "Methodus Incre-
mentorum;" and in the Philosophical Transactions for 1718,
an improvement of the method of approximating to the
roots of equations in numbers. M. Nicole, in 1717, com-
municated, in the Memoirs of the Academy of Sciences, a
tract on the calculation of finite differences, and in fol-
lowing years various other tracts on the same subject, and
also on the resolution of equations of the third degree, and
on the irreducible case in cubic equations. Ronayne, in 1717,
published a treatise on algebra; and in the same year Mr.
James Stirling published a work of improvement on analy-
tics, entitled, "Lineae tertii Ordinis;" and in 1730, "Me-
thodus Differentialis; five tractatus de summatione et
integratione serierum infinitarum;" with great improvements
on infinite series. Maclaurin, in 1726 and 1729, gave, in
the Philosophical Transactions, tracts on the imaginary
roots of equations, and afterwards his "Algebra," was pub-
lished from his pothumous papers, with its application to
curves. S'Gravafande's algebra, with a commentary on
Newton's "Arithm. appeared in 1727; and in 1728
Mr. Campbell communicated, in the Philosophical Tran-
s, an ingenious paper on the number of impossible roots of
equations, and the papers of Maclaurin and Campbell were
annexed to Gravafande's edition of the "Arithm. Univ." at
Leyden in 1732. Lecchi, a Jesuit, published the "Arithm.
Un." with an imperfect commentary, in 3 vols. 8vo, in
1752. Wolffius's algebra was published in 1732, in his
"Elementa Mathematicae Universae," in 5 vols. 4to. Mr.
John Kirkby's arithmetic and algebra were published in
1735, and in 1748 his doctrine of ultimats. Several
improvements in series, and other parts of algebra, are con-
tained in Mr. Thomas Simpson's "Essays," published in
1746, in his "Differentials;" and in his tracts, 1757,
and also in his "Algebra," first printed in 1745, and in his
"Select Exercises," in 1732. In 1740, Saunderson's
"Elements of Algebra," were published in 2 vols. 4to.
M. de la Caille, published in 1741, "Lecons de Mathema-
tiques; ou Elemla d'Algebra et Geometrie" and in the
same year M. de Gua, in the Memoirs of the Academy of
Sciences, communicated two articles on the number of po-
itive, negative, and imaginary roots of equations, with an
historical account of the improvements in algebra, in which
he severely censures Wallis for his partiality, whilst he
himself is, at least, equally faulty. M. Clairaut published
his "Elements d'Algebra," in 1746, in which he has many
improvements.
improvements, particularly with reference to the irreducible
roots in cubic equations. A fifth edition of this valuable trea-
tise, with notes and additions, was published at Paris in 1797,
in 2 vols. 8vo. He has also several papers on analytics, in
the Memoirs of the Academy of Sciences. In 1747, M.
Fontaine gave, in the same memoirs, a paper on the resolu-
tion of equations, and other papers in subsequent memoirs.
In 1748, Mademoiselle M. G. Agnelli, published at Milan
in Italian, "Analytical Institutions, in 2 vols. 4to. M.
Catton, in 1761, published in 2 vols. 4to, Newton’s Uni-
versal Arithmetic, with an ample commentary. In 1763,
Mr. Emerson published his "Increments," and in 1764 his
"Algebra." Mr. Landen published his "Reial Analysis," in 1764,
his "Mathematical Lucubrations," in 1765, and his "Mathematical Memoirs," in 1780. M.
Euler published his "Elements of Algebra," in the Ger-
man language in 1770, and in 1774, a French translation
was published, by J. Bernoulli, with the analysis of indeter-
dinate problems, by M. de la Grange. An English transla-
tion was published in 1797, in 2 vols. The memoirs of
Berlin and Petersburg abound, with various improvements
on series and other branches of analysis by this celebrated
mathematician.

Dr. Waring, late of Cambridge, has com-
 municated several valuable papers to the Philosophical Tran-
actions, and many of his improvements, are contained in his
separate publications, particularly the "Meditations Al-
gebraicae," published in 1770; the "Proprietates Alge-
braicarum Curvarum," in 1772; and the "Meditations Analyticae," in 1776. The first of these publications de-
 fines particular notice. The first chapter treats of the
transformation of algebraical equations into others, of which
the roots have given algebraical relation to the roots of the
given equations. The limits and number of impossible and
affirmative and negative roots of algebraical equations are the
subjects of the second chapter. The third chapter com-
prehends the investigation of the roots of equations or irrational
quantities, which have given relations to one another, the
resolution of equations, &c. &c. The fourth chapter is
principally conversant concerning more algebraical equations
and their reduction to one; and the fifth chapter treats of
rational and integral values of the unknown quantities of given
equations. Francis Maieres, Esq. claims honourable mention,
not only as an original writer, who has contributed to the ex-
planation and improvement of some of the most abstruse and
yet most interesting branches of algebra and analysis, but on
account of the labour and expense which he has bestowed
on the publication of the "Scriptores Logarithemici," in
three vols. 4to, 1791, 1796, containing many curious and
useful tracts, which are thus preserved from being lost, and
many valuable papers of his own on the binomial theorem,
series, &c. After this detail, for which we are in a con-
siderable degree indebted to the refection of Montuc and
Dr. Hutton, many authors who have, in separate treatises
or in occasional essays, contributed to the improvement of
algebra in general, or some particular branches of it, or who
have published treatises on the science, still remain unno-
 ticed; and we must content ourselves with merely mentioning
Franciscus Caligarius, Rudolphus, Adam Gigas or Rifie.,
Budde, R. Wentworth, Ant. Maria Floridus, Lazarus
Schonauer, Bernard Salignac, Leonard, Digges, and Ro-
bert Norman, in the 16th century, Christophorus Clavis, in
1668, Georgius Henefuchius, in 1609, Sebastian Kurz,
Coignet, Lalonde, Degrave, Mecher, the Bernoullis,
Malbranche, Wells, Dodson, Manfried, Regnault, Roin-
ing, Hammond, Lorgna, Hellins, de Grange, de la
Place, Bertrand, Kuhnus, Hales, Maclaylyn, Vince, Wood,
Manning, Froud, Bonnycastle, &c. &c. &c.

Algebra is a peculiar kind of Arithmetic, which takes
the quantity sought, whether it be a number, or a line, or
any other quantity as if it were granted; and by means of
one or more quantities given, proceeds by a train of de-
duction, till the quantity at first only supposed to be known,
or at least some power of it, is found to be equal to some
quantity or quantities which are known, and consequently
itself is known.

Algebra is of two kinds, numeral and literal.

Algebra, numeral, or vulgar, is that which is chiefly con-
cerned in the resolution of arithmetical questions. In this,
the quantity sought is represented by some letter or character;
but all the given quantities are expressed by numbers. Such
is the algebra of the more ancient authors, as Diophantus,
Pacioli, Stifelius, &c. This is thought by some to have
been an introduction to the art of keeping merchants’ ac-
counts by double entry.

Algebra specific, or literal, or the new algebra, is that in
which all the quantities, known and unknown, are expressed
or represented by their species, or letters of the alphabet.

There are inferences of this method from Cardan and others
at his time; but it was more generally introduced and
used by Vieta. Dr. Wallis (Algebra, p. 66.) apprehends,
that the name of specific arithmetic applied to algebra is given
to it with a reference to the sense in which the Civilians use
the word species. Thus, they use the names Titius, Ser-
promius, Caius, and the like, to represent indefinitely any
person in such circumstances; and cafes so proposed, they
call species. Vieta, accustomed to the language of the
civil law, gave, as Wallis supposes, the name of species to
the letters A, B, C, &c. which he used to represent inde-
finitely any number or quantity, so circumstanced as the
occasion required.

This mode of expression frees the memory and imagina-
tion from that labours or effort, which is required to keep
several matters, necessary for the discovery of the truth in-
volved, present to the mind; for which reason this art
may be properly denominated metaphysical geometry. Spe-
cious algebra is not like the numeral, confined to certain
kinds of problems; but serves universally for the investiga-
tion or invention of theorems, as well as the solution and dem-
oration of all kinds of problems, both arithmetical and
geometrical. The letters used in algebra do each of them
separately represent either lines or numbers, as the problem
is either arithmetical or geometrical; and together, they
represent planes, solids, and powers more or less high, as
the letters are in a greater or less number. For instance, if
there be two letters, a, b, they represent a rectangle, whose
sides are expressed, one by the letter a, and the other
by b; so that by their mutual multiplication they produce
the plane a b. Where the same letter is repeated twice,
as a a, they denote a square. Three letters a b c, re-
represent a solid or a rectangular parallelepiped, whose
three dimensions are expressed by the three letters a b c;
the length by a, the breadth by b, and the depth by c; so that
by their mutual multiplication, they produce the solid
a b c.

As the multiplication of dimensions is expressed by the mul-
tiplication of letters, and as the number of these may be so
great as to become incommodious, the method is only to write
down the root, and on the right hand to write the index of the
tower, that is, the number of letters of which the quantity
is expressed, or the number of which letters are multiply
ed four times into itself; and so of the rest. But as it is nec-
cessary, before any progress can be made in the science of algebra, to understand the
method of notation, we shall here give a general view of it.

In
In algebra, as we have already stated, every quantity, whether it be known or given, or unknown or required, is usually represented by some letter of the alphabet; and the given quantities are commonly denoted by the initial letters, \(a, b, c, d, \&c.\) and the unknown ones by the final letters, \(x, y, z, \&c.\) These quantities are connected together by certain signs or symbols, which serve to show their mutual relation, and at the same time to simplify the science and to reduce its operations into a less complex form. Accordingly the sign \(+\) or \(-\), signifies that the quantity, to which it is prefixed, is to be added to, and it is called a positive or affirmative quantity. Thus, \(a + b\) expresses the sum of the two quantities \(a\) and \(b\), so that if \(a = 5\), and \(b = 3\), \(a + b = 8\). If a quantity have no sign, \(+\) or \(-\), it is understood, and the quantity is affirmative or positive. The sign \(-\), minus or less, denotes that the quantity which it precedes is to be subtracted from, and it is called a negative quantity. Thus \(a - b\) expresses the difference of \(a\) and \(b\); so that if \(a\) being \(5\), and \(b = 3\), \(a - b = 2\). If more quantities than two were connected by these signs, the sum of those with the sign \(+\) must be subtracted from the sum of those with the sign \(-\). Thus, \(a + b + c - d\) represents the quantity which would remain, when \(c\) and \(d\) are taken from \(a + b\). So that if \(a = 7\), \(b = 6\), \(c = 5\), and \(d = 3\), \(a + b - c - d = 6\). If \(a = 7\), \(b = 6\), \(c = 5\), and \(d = 3\), \(a + b - c - d = 5\). If two quantities are connected by the sign \(\times\), as \(a \times b\), this mode of expression represents the difference of \(a\) and \(b\), when it is not known which of them is the greater.

The sign \(\times\) signifies that the quantities between which it stands are to be multiplied together, or it represents their product. Thus, \(a \times b\) expresses the product of \(a\) and \(b\); \(a \times b \times c\) denotes the product of \(a\), \(b\), and \(c\); \(a + b \times c\) denotes the product of the compound quantity \(a + b\) by the simple quantity \(c\); and \((a + b + c) \times (a - b + c) \times (a + b)\) represents the product of the three compound quantities, multiplied continuously one after another. Thus, if \(a = 5\), \(b = 4\), and \(c = 3\), then \(a + b + c \times a - b + c \times a + b = 12 \times 4 \times 8\). The line connecting the simple quantities and forming a compound one, placed over them, is called a vinculum. Quantities that are joined together without any intermediate sign form a product; thus \(a \times b\) is the same with \(a \times b\). When a quantity is multiplied into itself, or raised to any power, the usual mode of expression is to draw a line over the quantity and to place the number denoting the power at the end of it, which number is called the index or exponent.

Thus, \(a + b\)^2 denotes the same as \(a + b \times a + b\) or the second power, or square, of \(a + b\); and \(a + b\)^3 denotes the same as \(a + b \times a + b \times a + b\) or the third power, or cube, of \(a + b\). In expressing the powers of quantities represented by single letters, the line over the top is usually omitted; thus, \(a^2\) is the same as \(a \times a\), and \(b^3\) as \(b \times b \times b\). In the case of \(a + b\), the notation \((a + b)^n\) is used instead of \(a \times a \times \cdots \times a\), the sign of multiplication. Thus, \(a + b \times a + c\), and \(a + b \times a + c\), signify the same thing as \(a + b \times a + c\), or the product of \(a + b\) by \(a + c\).

The sign \(\div\) is the sign of division, as it denotes that the quantity preceding it is to be divided by the succeeding quantity. Thus, \(c \div b\) signifies that \(c\) is to be divided by \(b\); and \((a + b) \div a + c\), that \(a + b\) is to be divided by \(a + c\). The mark ) is sometimes used as a note of division; thus, \(a + c) \div b\) denotes that \(a + c\) is to be divided by \(b\). But the division of algebraic quantities is most commonly expressed by placing the divisor under the dividend with a line between them, like a vulgar fraction. Thus, \(\frac{a}{b}\) represents the quantity arising by dividing \(a\) by \(b\), or the quotient, and \(\frac{a + b}{a + c}\) represents the quotient of \(a + b\) divided by \(a + c\). Quantities thus expressed are called algebraic fractions. See Fraction.

The sign \(\sqrt{\ }\) expresses the square root of any quantity to which it is prefixed; thus \(\sqrt{25}\) signifies the square root of 25, because \(5 \times 5 = 25\); and \(\sqrt{a}\) denotes the square root of \(a\); and \(\sqrt{\frac{a + b}{b}}\) denotes the square root of \(\frac{a + b}{b}\), or of the quantity arising from the division of \(a + b\) by \(b\); but \(\sqrt{a + b + c}\), which has the separating line drawn under \(\sqrt{\ }\), signifies that the square root of \(a + b + c\) is to be first taken, and afterwards divided by \(d\); so that if \(a = 2, b = 3, c = 4,\) and \(d = 9\), then \(\sqrt{a + b + c}\) would be \(\sqrt{\frac{2 + 3 + 4}{9}}\) or \(\frac{9}{3}\), but \(\sqrt{\frac{a + b}{b}}\) would be \(\sqrt{\frac{2 + 3}{3}} = \frac{9}{3}\) or \(\sqrt{\frac{9}{3}}\), which is 3.

The sign \(\sqrt[3]{\ }\) with a figure over it is used to express the cubic or biquadratic root, &c., of any quantity; thus \(\sqrt[3]{a}\) denotes the cube root of \(a\); thus \(\sqrt[4]{a}\) denotes the cube root of \(4\); because \(4 \times 4 \times 4 = 4\); and \(\sqrt[4]{a + b + c}\) denotes the cube root of \(a + b + c\). In like manner \(\sqrt[4]{16}\) denotes the biquadratic root of 16, or \(\sqrt[4]{16}\); because \(2 \times 2 \times 2 \times 2 = 16\), or \(\sqrt[4]{a + b + c}\) denotes the biquadratic root of \(a + b + c\) and so of others. Quantities thus expressed are called radical quantities, or Surds; of which those, consisting of one term only, as \(\sqrt{a}\) and \(\sqrt[3]{a} \), are called simple Surds; and those consisting of several terms, or numbers, as \(\sqrt{a^2 - b}\) and \(\sqrt{a^2 - b + c}\), are denominated compound Surds. Another commodious method of expressing radical quantities is that which denotes the root by a vulgar fraction, placed at the end of a line drawn over the quantity given. In this notation, the square root is expressed by \(\frac{1}{2}\), the cube root by \(\frac{1}{3}\), the biquadratic root by \(\frac{1}{4}\), &c. Thus \(\sqrt{a}\) expresses the same quantity with \(\sqrt{a}\); i.e., the square root of \(a\), and \(\sqrt[n]{a}\) the same as \(\sqrt[n]{a + b}\); i.e., the cube root of \(a + b\); and \(\sqrt[3]{a}\) is the cube root of the square of \(a\) or the square of the cube root of \(a\); and \(a + z\) the seventh power of the biquadratic root of \(a + e\); and so of others; \(a + 1\) is \(a\), and \(a\) is \(a\). When the root of a quantity represented by a simple letter is to be expressed, the line over it may be omitted; so that \(\sqrt[n]{a}\) signifies the same as \(a^n\), and \(b\) the same as \(b^n\). Quantities that have no radical sign (\(\sqrt{\ }\)) or index annexed to them, are called rational quantities.

The sign \(=\), called the sign of equality, signifies that the
the quantities between which it occurs are equal. Thus
\[ 2 + 3 = 5, \]
shows that 2 more 3 is equal to 5; and
\[ x = a - b \]
does that \( x \) is equal to the difference of \( a \) and \( b \).

The mark \( \pm \) signifies that the quantities between which
it stands are proportional. As \( a : b :: c : d \) denotes that \( a \)
is in the same proportion to \( b \), as \( c \) is to \( d \); or that if \( a \) be
two, three, or four times, &c., as great as \( b \), \( c \) will be twice,
three, or four times, &c., as great as \( d \).

When any quantity is to be taken more than once, the number
which shows how many times it is to be taken must be pre-
fixed; thus \( 2a \) denotes that the quantity is to be taken 2
times, and \( 3bc \) or \( 3 \cdot b \cdot c \) denotes that \( 3 \cdot b \cdot c \) is to be taken 3
times, &c. The numbers thus prefixed are called co-efficients; and if a
quantity have no co-efficient, it is understood, and it is to
be taken only once.

Similar or like quantities are those that are expressed by
the same letters under the same powers, or which differ only in
their co-efficients; thus, \( 3b, 5b^2, \) and \( 8b^3 \), are like
quantities, and so are the radicals \( \frac{2\sqrt{b} + c}{a} \) and \( \frac{7\sqrt{b} + c}{a} \).

But unlike quantities are those which are expressed by
different letters, or by the same letters with different powers,
as \( 2ab, 5ab^2, \) and \( 3a^2b \).

When a quantity is expressed by a single letter, or by se-
veral single letters multiplied together, without any inter-
vening sign, as \( a, a^2, \) and \( ab \), it is called a simple
quantity. But the quantity which consists of two or more such simple
quantities, connected by the signs + or −, is called a com-
-pound quantity; thus, \( a - 2ab + 5abc \) is a compound
quantity; and the simple quantities \( a, 2ab, 5abc \), are
called its terms or members. If a compound quantity consists
of two terms, it is called a binomial; of 3 terms a trinomial,
or 4 terms, a quadirominal, &c. of many terms, a multino-
minal. If one of the terms of a binomial be negative, the
quantity is called a reducible quantity. The reciproca of any
quantity is that quantity inverted, or unity divided by it;
thus \( \frac{a}{b} \) is the reciprocal of \( \frac{b}{a} \), and \( \frac{1}{a} \) is the reciprocal of
\( a, \)

The letters by which any simple quantity is expressed
may be ranged at pleasure, and yet retain the same signifi-
cation; thus \( a \) and \( b \) are the same quantity, the product
of \( a \) and \( b \) being the same with that of \( b \) by \( a \). The several
terms of which any compound quantity consists may be dis-
persed in any order at pleasure, provided they retain their
proper signs. Thus, \( a - 2ab + 5abc \) may be written
\( a + 5abc - 2ab \) or \( -2ab + a + 5abc \), for all these
represent the same thing or the quantity which remains, when
from the sum of \( a \) and \( 3a^2b \) the quantity \( 2ab \) is deducted.

For the method of performing the several operations in
algebra, see Addition, Subtraction, Multiplica-
tion, Division, Fraction, Involution, Evolution,
Equation, Series and Surd. See also Application
of Algebra to Geometry, Binomial Theorem, Construc-
tion of Equations, and Reduction of Equations.

Algebra has been also applied to the consideration and
calculation of infinites; and from this application of it a new
and extensive branch of science has arisen, called the
discipline of Fluxions, or Analysis of Infinites, or the
Calculus Differentials. For an account of the rise and
proceeds of Algebra, as well as other branches of mathemat-
ics, see the last and most improved edition of Montucla's

ALGEBRAICAL, something that relates to algebra.

Thus we say, algebraical characters, or symbols, curves,
solutions, &c. An algebraical curve, is a curve, wherein
the relation of the abscissae to the ordinates may be de-

fixed by an algebraical equation. These are also called geo-
métrical lines, or curves, in contradistinction to mechanical
or transcendental ones. See Curve.

ALGEBRAIST, a person skilled in algebra.

ALGEBUS, in Surgery, from a hump, a suppresse gonorrhoea,
attended with pain in the genital and urinary organs. This
name field occurs, except in obsolete, See Gonorrhoea.

ALGEBUS, in Geography, is the name of a con-
siderable chain of mountains in Independent Tartary, which
extends from the river Yark and Ural, towards the Atalan
range.

ALGEMISI, or ALGIMEN, a small town of
Valencia, in Spain, not far from the river Xucar, near
which grows quantities of Pita, as it is called, or Am-
erican oboes,alyze, of which the people make cordage,
and the Catalans spin it of a sufficient fineness for making
lace; it is six leagues south of Valencia, and five north-
west of Gandia.

ALGENEB, or ALGENIS, in Alphabet, a fixed
part of the second magnitude, on the right side of PERSEUS.

ALGEO, or CARBON, in Geography, a river of European
Turkey, which runs into the sea, eight miles west-south-west
of Olimpia, a town in the Morea.

ALGERANCA, fland, one of the Cantaries, in the
North Atlantic Ocean. N. lat. 29° 23', W. long. 15° 58'.

ALGERI, or ALGHER, a small peopled city of Sar-
dinna, situated on a bay on the Western coast. It is a
bishop's see, and has a coral-cliffery. It is 79 miles north-
west of Cagliari. The bay of Algiers is spacious and affords
good anchorage; it is formed by the point of Cape
de Bana on the north, and by a point of land on the
south. N. lat. 40° 37', E. long. 6° 30'.

ALGECIRA, or ALGERRA, a sea-port town of Spain,
in the province of Andalutia, on the Straits of Gibraltar,
and 5 miles west from it. The Moors entered Spain by this town
in 715, and were dispossessed of it in 1344. It is said to have
been the first town in which cannon were used. The word
Algiers in Arabic signifies an island, and as the harbour
is formed by two islands, it has been called in the plural number
Algeiras. It was also called Old Gibraltar. The
harbour is now decayed, and the town lies in ruins.
N. lat. 36° 5', W. long. 5° 20'.

ALGEZIRA, or ALZORA, is also a town of Spain,
in the province of Valencia, situated on a small island on the river
Xucar, 20 miles south of Valencia. Though the town is
small, its timber trade has been extensive.

ALGECUR, a small town of Portugal, in the province
of Algarve, at the mouth of a small river near the Atlantic
Ocean, 17 miles north-west of Lagos. It contains about
800 inhabitants.

ALGHEMI, a country of Africa, on the Slave coast.

ALGHESI, THOMAS, in Biography. The father of
this writer, who was a furgon de eminence, at Florence,
took care to imbue his mind early with the principles of his
art. His instructor in anatomy was the celebrated Laurentius
Bellinus. At a proper age he was made furgon to the
hospital at Florence, where applying himself particularly
to the operation of lithotomy, which he performed with
singular facility and success, he acquired considerable reputation.
In 1703, he was made doctor in medicine at Padua. In
1707, he published a treatise on lithotomy, in 4to., written
in Italian, which contains, Haller says, Bib. Chim. vol. i.
p. 582, several original observations, the fruits of his own
experience. Exfalt etiam, he adds, hujus Authoris, De Manna
Egyptia involuita perpulchrum epistolam ad Valis-
nerium. He died September 1713, being only 44 years
of age, in consequence of the amputation of his left hand,
which had been wounded by the bursting of a suffl.
ALGIABARII, a Mahometan sect of predestination,
who attribute all the actions of men, good or evil, to
the agency or influence of God.
The Algiabarit stand opposed to the Alkadarii.

ALGIBARROTA, or ALJABARROTA, in Geography,
a small town of Portugal, in Estremadura, containing two
parishes and 1600 inhabitants. King John I. obtained in
this place a victory over the CaBilians in 1385.

ALGIDUM, in Ancient Geography, a town of Latium
or Italy, between Princes to the north-east, and Alba to
the south-west, near the mountains. It belonged to
the Equi, according to Dionysius Hal. (lib. xi. tom. i. p. 673.
d. Oxon.,) and Livy, (lib. iii. c. 58. tom. i. p. 693. ed.
Burman,) and had a temple of Diana on the top of a high
mountain, called by the same name. This temple was in
Greek denominated Artemisia, and hence the mountain was
called by the same name. It has been supposed that Algidi-
urn or Algibus was derived from gelidus, cold or freezing,
on account of the quality of its air. Horace refers to this
mountain, (lib. i. od. 21.) "Quercusque aut gelido prominit
Algido," and (lib. iii. od. 23.) "-Que nivali pacificatur
Algido," &c.

ALGiers, in Geography, a kingdom of Africa,
comprehends part of the ancient Mauritania, particularly
that which was called Mauritania Cæsariensis, and the an-
cient Numidia, and forms one of the most considerable dis-
tricts of that part of Africa which lies on the northern
coast, and which in later ages has been denominated Barba-
ary. The country derives its name from its metropolis, called
by the Turks Algæzâr, Al Jezâr, or Al Jezâria, in Arabic,
figurizing the Algæ, because there was an island before the
city, to which it hath been since joined by a mole. The
extent of this kingdom has been variously assigned by dif-
ferent writers. Saifon, who marks its boundaries by the
rivers Mullooa or Malva, and the Zaine, gives it a length
from east to west of 900 miles, De La Croix, 720. Latits,
reckoning 45 miles for one degree of longitude, 630; but if
with Dr. Shaw, we make the boundary of Algiers to the
west the Trara mountains, which separate it from the do-
minions of the emperor of Morocco, or Twun, which lies
40 miles to the eastward of the Mullooa, and that to the
city the river Zaine, formerly called Taûta, it will be found
to extend 450 miles, or from 6° 10'. W. long. to 9° 16'. E.
longitude. The breadth of Algiers is very unequal in dif-
dierent parts; for near Tlemcan it is not more than 40 miles,
from the Sahara to the sea-coast; near the sources of the
rivers Sigg and Shelif, it is about 65 miles, and this, in the
western part, may be taken at a medium for the extent of
what the Arabs call Tell, or land proper for tillage. But to the
call of Algiers, its breadth is much more considerable; par-
ticularly in the meridians of Boujiah or Buggia, and Bora,
where it extends above 100 miles, especially under that of
Algiers or Algéri, in lat. 36° 55' to Liulaljâ, situate among
the mountains of Atlas, in lat. 44° 50'. The Algerine do-
minions beyond the Tell, or more advanced parts of Atlas,
are very precarios and not easily defined, so that the nor-
thern skirts of the Sahara, or Desert, seem to be the proper
boundaries on that side. Accordingly, Algiers may be con-
sidered, in general, as bounded on the north by the Medi-
terranean, on the east by the river Zaine, which divides it
from Tunisia, on the west by the Mullooa, or by Twun,
and the mountains of Trara, which separate it from Mo-
rocco, and on the south by the Sahara, or Numidian desert.
If we take the medium difference of latitude to be 2° 30',
and the difference of longitude to be 6° 30', the superficial
extent of the whole kingdom would amount to about 4218,
or according to a more accurate astronomical calculation
of M. Von Zech, 4262 geographical square miles.

This kingdom has been divided by geographers into
many provinces, according to the several royalties into which
it was cantoned, at different periods, before and after the
time of the Turkish conquests. At present it contains,
according to Shaw, three principal divisions, viz. the province
of Tlemcan to the west, called by others Tremeen, and
Mascara; that of Teti or Titterie to the south; and
that of Constantina to the east; to which some have added,
as a distinct province, the territory of the city of
Algiers. The western province comprehends the towns of
Oran, Mustygannie, Tlemcan or Tremeen, Mascara, Shersheul, Ternis, besides several other more
inconsiderable places. In this province, coaling from the
Trara mountains, we meet with Twun, Cape Hone,
Tuckumbret, at the mouth of the river Tafa, the island
of Acra or Harligooma, &c. The principal rivers are the
Mala, Salt-river, Tafa, Sigg, Hibrâh, Maffran, and She-
lif. The mountains are Atlas and Trara. See Mascara. The
southern province has no towns along the coast; but in the
interior of the country the two chief towns are Belida and
Medca; the mountains are branches of the Atlas, the Boe-
jereh, the Anwall mountains on the river Yiffer, and that
of Jurjura and Felizia; and the rivers are the Haratet,
Ha-mmâ, Regya, Budowoe, Carec, Merdaa, and the Yiffer,
of which the last is the most considerable. See Tetteri.
The eastern province, called the Levantine government,
is the largest and richest. See Constantina.

The territory of Algiers is principally distinguished by
its capital, the metropolis of the kingdom. Within about half
a mile to the north-east of the city commences the plain of
Mettijiah, called by Abulfidh Bleded Kibech, i.e. a 700
country, which stretches 50 English miles in length and 20
in breadth, as far as the branch of the Atlas, at the foot
of which lies the town of Belida. This plain is better cul-
tivated than the other districts of the kingdom. It is wa-
tered by several springs and rivulets; particularly by the
Maffran, which, at its entrance into the sea, is a very con-
derable river, and little inferior to the Shelif, the Shiffa,
and the Haratet. The country fears and Maharcas, as
they call the farms of the principal inhabitants of Algiers,
are found in these plains; and it is chiefly from them that
the metropolis is supplied with provisions. Flax, alhena,
roots, potash, rice, fruit, and grain of all kinds, are pro-
duced here to such perfection, that the Mettiçiah may be
justly reckoned the garden of the whole kingdom. For the
nature of the soil, productions, inhabitants, population,
government, commerce, &c. of the kingdom in general, we
refer to the sequel of this article.

After the expulsion of the Greeks from Africa by the
Saracens, towards the close of the seventh century, (see
Africa,) the country was divided into a number of small
kingdoms and states, under chiefs of their own nation and
choice. This government continued till the year 1051, when
they were expelled by Abubeker ben Omar, or as the Spa-
nards call him, Abul Texchen, an Arab of the Zihflan
tribe, with the assistance of some powerful Marabouts; the
conqueror assumed the title of Amen al Minim, or chief of
the faithful, and his subjects were denominated Morabîtes,
and corruptly Almoravides. Texchen, having succeeded
in driving the Arab tyrants out of Numidia and Libya, and all
the western ports, reduced under his dominion the whole
province of Tingitania. He was succeeded by his son Josep,
who laid the foundation of the city of Morocco, which he
intended for the capital of his empire; but whilst he was
building
building this city, he deported an emissary to the Zeneti who inhabited Trencenec, under a pretense of reclaiming them to the true faith; but the Zeneti assembled in hostile array at Amal or Amfas, their capital, and invaded the dominions of Joseph with an army of 50,000 men. The Zeneti, assisted by the inhabitants of Fez, whose faction they expected, were overpowered by Joseph, so that about a million of persons are reckoned to have lost their lives in this contest, and their country was depopulated; but afterwards repopulated by a colony from Fez, who settled there under the protection of their reigning kings. Joseph directed his next attack against the inhabitants of Fez, whom he subdued and made tributary, and extended his conquests along the Mediterranean. He also pursued some Arabian chieftains, who had not submitted to him, into their retreats, in the deserts of Libya, and totally subdued them. The empire of the Moabites, which was thus established, and which promised permanence, was nevertheless of no long duration. This race was again expelled in the 12th century by Mohavedin, or Al Mohed, a Marabout, who dethronedbrahim Ali, the last emperor of the Zinghalian dynasty. This usurper and his successor, denominated Mohavedins, and they were afterwards called Moharades, Mohades; and Almoherides. However, they were extirpated by Abdurah, governor of Fez; and he was again stripped of his new conquests by the sheriffs of Haacen, the descendants of the Arabian princes of the 10th century. With a view of securing his new dominions, he divided Barbary into several small kingdoms or provinces, assigning to each a separate chief. On this occasion Algiers was divided between four of their native princes; one of whom had Trencene, and the other three had Tenez, Algers proper, and Bujeyas, and thus these four cities became the capitals of four distinct kingdoms. For some centuries these monarchs continued in mutual peace and amity; but disputes arose among them; and Abul-fariz, prince of Tenez, declared war against the king of Trencene. In a little while he became master of both Trencene and Bujeya. At his death he divided his kingdom between his three sons; one of whom had Tenez, another Jigari, and the third, whose name was Abdalain, had Bujeya. This last attacked the king of Trencenec, and having succeeded against him, the Algerines, who had been his tributaries, transferred their subjection and tribute to the conqueror, by which means he became so powerful, that if the Spaniards had not interfered, he would have made himself master of the whole of Barbary. Their interposition, however, checked his progress, and produced a signal change in the aspect of his affairs. In 1505 cardinal Ximenes, prime minister of Ferdinand V., king of Aragon, sent thither the count of Navarre with a powerful army and fleet, principally with a view of restraining the depredations of the Moors, who had been banished from Spain about 12 years before; and such was his success that he soon became master of Oran, Bujeyas, and other considerable places. The Algerines were alarmed; and fought the succour of Sehim Eutemia, a warlike Arabian prince, who fortified the fertile territory of Mettijiah. He marched to their assistance; but his co-operation was ineffectual; and the Spaniards, having landed a considerable number of forces near Algiers, reduced this capital to subjection, and compelled it to become tributary to Spain. They also erected a strong fort on the small island opposite to the city, and thus prevented the Algerine Corsairs from falling into or out of that harbour. On the death of Ferdinand in 1516, the Algerines made an effort for recovering their liberty; and they invited Barbarossa, who was then on a cruise with a squadron of galleys, to assist them in throwing off the Spanish yoke, promising him a gratuity corresponding to a service so important. The bold and adventurous Cor-
A young Arabian prince, the son of Eutemis, was at this time under the protection of the Marquis de Gomez at Oran. Eager to revenge the wrongs which his family had suffered, he proposed to the Marquis a very practicable plan for putting the city of Algiers into the possession of the Spanish monarch, and this scheme was laid before Cardinal Ximenes. The Cardinal approved it, and sent a fleet, with 10,000 forces, to drive Barbarossa and the Turks out of Algiers, and to restore young Selim Eutemis. But the fleet was dispersed by a storm; many of the Spaniards were drowned; and those who escaped to shore, were either killed by the Turks or made slaves. The Algerines, in concurrence with the Aragonians and Moors, made their next application to Hamidel Abbidas, king of Tenez, and requested his aid against Barbarossa and his adherents. This prince condescended, on condition that the kingdom of Algiers should be settled upon him and his descendants. When he entered the Algerine dominions at the head of 10,000 Moors, he was joined by the Spaniards of the whole country. Barbarossa, however, with 1000 Turkish musqueteers and 500 Grandes Moors, defeated this numerous army; pursued Hamidel to the gates of his capital, took the place, and obliged the inhabitants to acknowledge him as their sovereign. Barbarossa, having taken possession of Tenez, received an embassy from the inhabitants of Tremecen; who, dissatisfied with the reigning prince, because he had dethroned his nephew, requested his assistance to depose the usurper, and offered him the sovereignty. The invitation was readily accepted. Barbarossa obliged the king of Tremecen, after a severe engagement, to retire to his capital, where he was instantly beheaded by his subjects, and the conqueror received a fresh invitation to take possession of the kingdom. When Barbarossa, thus invested with new power, began to tyrannize over his subjects, the Tremecenians exasperated; and repenting of their having invited such a tyrant to their assistance, they deliberated on the best means for expelling him, and restoring their lawful prince. Their design, however, was discovered, and many of the conspirators were cruelly massacred. The prince had fortunately made his escape to Oran, and put himself under the protection of the Marquis of Gomez, who sent immediate advice of his situation to Charles V., lately arrived in Spain with a powerful fleet and army. This politic monarch foreseeing the advantage that was likely to redound to him from placing the prince of Tremecen on the throne, ordered for him a succour of 10,000 men, under the command of Gomez or Comares, the governor of Oran. This army, in its march, was joined by prince Selim, and a great number of Arabs and Moors from the adjacent countries. Their first enterprise was the attack of Calau, an important fortress situated between Tremecen and Algiers. This place, after vigorous defence, was compelled to surrender, and after a severe plunder, delivered into the hands of the king of Tremecen. Barbarossa, fearing a revolt on the part of his own subjects, and disappointed in his expectations of assistance from the king of Fez, kept close in his capital. But upon the approach of the enemy he marched out of Tremecen, and determined to force his way through the hostile army which was preparing to lay siege to the city, to the field. He was advised, however, by his council to return and to fortify himself in the city; but the inhabitants refused him entrance, and he was therefore under a necessity of retiring into the citadel, and of there waiting for an opportunity to escape. Here he defended himself valiantly, and made several successful sallies during a long siege; but apprehensive of famine from the failure of his provisions, he took the advantage of a subterranean passage, through which he privately conveyed himself and his treasure. His flight was discovered and he was pursued; but ordering a considerable quantity of his money, jewels, and plate to be scattered in the way, he hoped by this stratagem to divert the attention of his pursuers. The artifice failed; for the Spaniards general obliged the army to march on, till at length they overtook the fugitive on the banks of the river Haekka, about eight leagues from Tremecen. A bloody engagement ensued; but the Turks were overpowered by numbers; they were all massacred by the Spaniards, and Barbarossa, among the rest, in the 44th year of his age. This defeat occasioned great consternation at Algiers. The Turks to whom the defence of the city was committed were much alarmed; and they soon agreed, as the best measure for preventing a revolt, to cauce Hayradin, the brother of Barbarossa, to be proclaimed king of Algiers, and high admiral of the sea. In order to secure himself from an interruption, which his tyrannical and oppressive conduct had given him reason to apprehend, he dispatched an ambassador with magnanimous presents to Selim I., then emperor of Constantinople, to notify the death of his brother, and to make him an offer of submitting the kingdom to his protection, and to pay him an annual tribute in return for his assistance. The Sultan was pleased with this proposal; received Hayradin, called also Barbarossa, under his protection, and appointed him his bashaw or viceroy over the kingdom of Algiers. Thus powerfully protected and aided with troops, he prepared for executing two grand projects which he had for some time in contemplation. The first was the destruction of the Spanish fort, which was a great nuisance to his metropolis; and the other was to render Algiers a commodious harbour by building a mole from thence to the island, in order to shelter them from the weather and the north sea, as well as from the guns of the Spanish fort, to avoid which the ships were obliged to lie about a mile west of the town, where the anchorage was unsafe. Having succeeded in taking the Spanish fort, he employed no less than 10,000 Christian slaves in the accomplishment of his second project, so that his strong mole for the accommodation and security of his ships was completed in less than three years. The execution of these two important projects added so much strength and wealth not only to the city but to the kingdom, that Hayradin became an object of terror, not only to the Moors and Aragonians, but to the maritime Christian powers, more particularly to the Spaniards. The Sultan, either grateful for the services performed by Hayradin, or jealous of his power, advanced him to the dignity of captain bashaw of the empire, and appointed Hafian, or Haleen Aga, a Sardeian renegade, to succeed him as bashaw of Algiers. The depredations of Hafian on the coasts of Italy and of Spain roused the resentment of pope Paul III. and of the emperor Charles V. The pope published a bull, with a plenary abjuration of all sins, and the promise of the crown of martyrdom, to all who should fall in battle against the infidels of Barbary; and the emperor equipped a powerful fleet, which he determined to command in person, in order to subdue them. Accordingly Charles, with a fleet of 120 ships and 20 galiotes, and 30,000 chosen troops, accompanied by a great number of noblemen and gentlemen, who served at their own expense as volunteers, from motives of religion and glory, set sail towards the end of Summer in 1541, and after a tedious and perilous voyage from Majorca to Africa, appeared on the coast of Algiers. The fleet anchored at cape
cape Metafuz: about two small leagues to the east of Algiers, and the army landed without opposition. Haffan's force, which garnished the city, amounted only to about 800 Turks and five or 6000 Moors, without fire arms, poorly disciplined and accoutred. As Charles's army drew near the city, the inhabitants were much alarmed; but when Haffan was summoned to surrender, he returned, at some say, an ambiguous, and according to others, a fierce and haughty answer. On the second day, however, after the emperor's landing, the clouds began to gather, and the heavens presented a very threatening aspect. In the evening the rain fell, and the storm raged with violence through the whole night, so that the soldiers who had neither tents nor shelter, were much incommoded. The ground also became so wet, and the camp was so much overflowed with water, that they could neither lie down, nor stand withoutlinking to the ankles in the mud. Their matches also were extinguished, and their powder so moistened, that their muskets were useless. Haffan perceived their distress and availing himself of it, fell out with his soldiers to attack them. In this situation the whole army, with the emperor himself in person, was obliged to advance to support the dispirited and retreating troops, who were first engaged, before the enemy could be repulsed; and they at length, after spreading general confusion, and killing a great number of men, retired in good order. The hurricane, however, which still continued, produced a more dreadful disaster. The emperor's ships, on which depended the safety and subsistence of his whole army, were driven from their anchors; some of them dashed against each other, some were cast to pieces upon the rocks, many were forced ashore, and not a few were sunk in the waves. In less than an hour, 15 ships of war and 140 transports with 8000 men perished; and such of the unhappy crews as escaped the fury of the sea, were murdered without mercy by the Arabs, as soon as they reached the land. The emperor found in silent anguish and aloneness, beholding this fatal event, which at once blasted all his hopes of success, and buried in the deep the vast hopes which he had provided, both for annoying the enemy and for subduing his own troops. At last the storm abated, and afforded some hopes that the ships, which had escaped, might save the army from perishing by famine, and transport them back to Europe. The approach of evening, however, disappointed these expectations; the sea was covered with darkness; and it was impossible for the officers aboard the ships that had outlived the storm to send any intelligence to their companions who were ashore; thus they remained during the night in all the anguish of suspense and uncertainty. Next day, a boat dispatched by Doria, the admiral, against whose advice this expedition had been undertaken, reached land, with information, that having weathered out the storm, to which, during 50 years' knowledge of the sea, he had never seen any equal in fiercenes and horror, he had found it necessary to bear away with his shattered ships to cape Metafuz. He advised the emperor, as the face of the sky was still lowering and tempestuous, to march with all speed to that place, where the troops could reenrich with greater ease. Metafuz was three days' march from the emperor's camp; his provisions were consumed; and his followers, exhausted with fatigue, and dispirited with a succession of hardships, were in no condition to encounter new toils. But no alternative remained; they were ordered instantly to march; some of them could scarcely sustain the weight of their arms; others, spent with the toil of forcing their way through deep and almost impassable roads, sunk down and died; many perished by famine, as the whole army subsisted chiefly on roots and berries, or the flesh of horses, killed by the emperor's order and distributed among the several battalions; many were drowned in brooks, twain by the excessive rain, which, in paling them, they were obliged to wade up to the chin; and not a few were killed by the enemy, who, during the greatest part of their retreat, alarmed, harassed, and annoyed them night and day. At last they arrived at Metafuz and here they were supplied with plenty of provifion, and cheered with the prospect of safety. When the forces were embarked, a new storm arose, which by its fury scattered the fleet, and obliged them, separately, to make towards such ports in Spain or Italy as they could first reach. The emperor himself, after escaping great danger, and being forced into the port of Bugia, in Africa, where he was obliaged by contrary winds to remain several weeks, arrived at last in Spain in a very distressed condition.

Haffan, the baiehaw of Algiers, after this signal deliverance, undertook an expedition against Muley Hammed, king of Tremecen, who had submitted to Charles V., in order to be relorded to his kingdom; but this prince purchased peace for a large sum of money, and became his tributary. Soon after this expedition Haffan died in the 59th year of his age, and was succeeded by Haji, who was compelled to surrender his dignity, much respected, as he was by the Algerines to Haffan; the son of Tekelli, the brother of Barbofes, whom Sultan Solymann had been prevailed upon to appoint baiehaw of Algiers. Haffan was engaged in various enterprises against Tremecen, which was at length taken and plundered by him, and the head of Abdallah, the youngest son of the Sheriff, who had been killed in a previous engagement, was put into an iron cage, and placed on the principal gate of the city, called Bah Azonn, where it continued till the year 1573. During an interval of peace, Haffan erected some public edifices at Algiers, and performed other useful acts both at Algiers and in his acedepend of Tenez, which rendered his government popular, and his death an occasion of regret. His successor was Salha Rais, the fifth baiehaw of Algiers, and the first of Arabian extract, that ever governed the Algerines. Of this baiehaw, who was much respected, and who died in the 70th year of his age, it is said, that he was steady in all his resolutions and successful in all his enterprises. From Metafuz, where he died, his body was removed to Algiers and buried among the baiehaways, his predecessors, in a sepulchre near the sea-side, over which his unfortunate successor, Haffan Corfo, caufed a handsome dome to be erected. Corfo, who was advanced to the dignity of baiehaw by the interest of the Janizaries, was displaced in four months by Tekelli, a principal Turk of the grand Signior's court. He was at first opposed by the Algerines, but at last they were under a necessity of submitting to him. One of the first acts of his government was to condemn Corfo, who welcomed him on his arrival, and peaceably surrendered his dignity, to the chinnun, or hook; a dreadful punishment, on which he hung by the ribs three whole days, and expired in the most exquisite torture. Alifard, governor of Bugia, who was reckoned immensely rich, also fell a sacrifice to the inexorable Tekelli, who, after inflicting the cruel tortures of baffa-ding, burning and scarifying him, in order to obtain a discovery of his wealth, ordered him to be impaled alive. This act of cruelty and the ignominious punishment of Corfo, raised a general remembrance among the Janizaries. Yufef, governor of Tremecen, determined likewise to revenge his death; and at a time when the plague raged furiously at Algiers, and Tekelli had removed to an old demoliished town near the sea, about five miles westward, he secretly and speedily
sleefully marched to the place of his retirement, before Tekkelli had any apprehension of his design. Tekkelli fled, and was closely pursued by Yafeb, who at length overtook him and pierced him several times with his javelin, till he expired. This action was highly applauded by all the Janizaries; and upon Yafeb's entering into Algiers, he was received with universal acclamation, as their deliverer from the tyranny of Tekkelli, who fell a just sacrifice to his avance and cruelty, in the 50th year of his age and third month of his vice-royship. Yafeb was unanimously chosen baishaw of Algiers, and soon died, to the great grief of the Algerines, by whom he was buried in the same grave with the unfortunate Haffan Corfo.

The new viceroy appointed by the Porte was Haffan, the son of Hayradin, who had been displaced by Selim Kais, at the instigation of Raisan, and who had now the good fortune to be restored to his Algerine government. His first enterprise was directed against Tunis, in which he was defeated with great loss. The next year proved more glorious to the Algerines, who encountered the Spaniards in their expedition against Mollagan, under the command of the brave count d'Alcandela. "The cause of this defeat was the count's excess of valor, or rather his precipitance, in engaging the enemy before he received the supply of troops that were destined to this service; and the consequence was the loss of his own life, the total rout of his army, and the captivity of above 12,000 Spaniards, among whom was the son of the count, and many other noblemen and gentlemen.

Haffan, after this victory, returned to Algiers, laden with laurels and spoils. His next expedition was directed against Abdalaziz, prince of the Beni Abbas, who inhabited the mountains, and who had discontinued to pay the usual tribute to the Algerine state. Having for this purpose collected a large army, he commenced the war, which was soon terminated by the death of Abdalaziz, in consequence of a musket-ball, which penetrated his breast. About this time the Marfilian merchants began, with the permission of Haffan, to build a fort on the coast, at a small distance from Calle, where the French have since settled; but the fort was in a few years demolished by the Algerine forces, under pretense that the French had bought all the corn, and caused a famine in their kingdom.

Haffan, having married the king of Cuco's daughter, permitted the subjects of this prince to purchase ammunition at Algiers; and this traffic gave such offence, that the Janizaries made an insurrection, seized on the baishaw and some other officers, and sent them in iron to Constantineople, accusing Haffan to the Porte of having a design to make himself king of Algiers. Upon their arrival, they vindicated their conduct to the satisfaction of the Porte, and were set at liberty; but a new viceroy was sent to Algiers. The name of this baishaw was Ahamed, or Achmet: he was a favourite of the Sultan, and inaffably avaricious; and had bought his dignity with a view to the emoluments that were likely to accrue from it. He enjoyed it, however, only four months; and Haffan was restored. Such was the joy of the Algerines on his return, that even the women appeared on the terraces and balconies to welcome him. Having collected a very numerous and powerful army and fleet, he set out on his expedition against Marfa al Quibbir; intending, after the reduction of this place, to attempt that of Auran or Oran. This city was commanded by the count d'Alcandela, who succeeded his father; and the former by his brother Don Martin de Cordova, who had obtained his liberty, at an immense sum, and now made a most gallant defence against the Turks. Haffan, after having made several vigorous attacks both by sea and land, and suffering several repulses, very fatal to his troops, was obliged to retreat precipitately from the siege by the approach of the Genoese admiral Doria, who was advancing with a powerful succor from Genoa, Naples and Sicily. This Christian armada having raised its aim of intercepting the Algerine galleys, bore away for Pannon de Veiz, hoping to drive them out of that harbour, but it was shamefully repulsed by a few Turks that were then in garrison and compelled to fall away with not small loss and ignominy. The loss of this place in the course of the next year was much regretted by the Algerines and their baishaw, and also by Sultan Solymar. Haffan was displaced by Mahamed baishaw, the son of Selim Kais; and departed for Constantinople, where, three years after, viz. in 1570, he died in the 50th year of his age. Mahamed, upon his first arrival, performed several public-spirited acts, which attached to him the love of all the Algerines. Whilke he was consulting how to advance the Algerine power and wealth, a Spanish adventurer, named Gafcon, was meditating a design against him. This nothing less than to surplice the whole piratical navy in the bay, and to set all the ships on fire in the dead of the night. For this purpose he obtained the permission of king Philip II., and a supply of all necessary vessels and materials. Having advanced to the Mole-gate, and dispersed his men with their fire-works, the garrison, during the delay of the execution of his plot, was alarmed, and Gafcon was under a necessity of securing himself by flight; but being pursued and overtaken, he was brought back to Algiers; and the baishaw ordered a gibbet of considerable height to be erected on the spot where he landed, on which he was hoisted, and hung by the feet, that he might die in the most exquisite torture; and as an insult on his master, the king's commission was fastened to his toes. Soon after he was hanged, a strong representation was made in his favour, and in a little while the baishaw ordered him to be taken down. This lenity of the baishaw occasioned great murmurs among the people; and the unhappy Gafcon was ordered to be hanged by a pulley to the top of the execution wall and let down again upon the chimney or hook, which occasioned his instant death; and his body was hung up in terrorem. This unsuccessful project of Gafcon has procured for him a place among the Spanish martyrs. Mahamed, after enjoying his government for about 14 months, was removed in order to make way for the accession of the Cordial Halil Fartaz, or Scald-head, commonly known by the name of Ochali, who was appointed his successor by the Ottoman court. Ochali arrived at Algiers in 1586, when the war against the revolted Morefoes in Granada was at its height. Being solicited to affit them against the Spaniards, he contented that some few persons should go to this service as volunteers, but he declined taking any offensive and active part in it. In the first year of his government, he laid the foundation of the fortress called Bebel-wel-yed Castle. Next year he totally reduced the kingdom of Tunis, which was then under the protection of Spain, to the obedience of the Ottoman empire. Having continued a whole year at Tunis, he left the place, and assigned the office of his viceroy to a Sardinian renegade, named Ramadan Sardo, who became afterwards baishaw of Algiers. This person raised himself from the condition of a slave to this dignity, by his superior understanding and good conduct. He became master of the Arabic and Turkish language; read and wrote well; and having followed traffic for some time, he was adopted, on account of his good qualities, by Halil baishaw, who appointed him his deputy governor in the city of Fez; and in conference of the application
plection of the Algerines in his favour to the Sultan, he
was appointed bashaw of Algiers. In 1575, after governing
Algiers little more than three years, he was forced to resign
his office to Hafian Venedic bashaw, a Venetian renegade.
During the whole government of Ramadan, it was conducted
with so much justice and equity, that a single complaint was
not uttered against it. The conduct of his successor was
very different; his administration was so oppressive, that
complaints being preferred against him to the Porte, he was
recalled, after being in office three years and a quarter; and
a new bashaw, Jaffer Agra, an Hungarian renegade, ap-
pointed in his room, A.D. 1580. At the commencement
of his government, Algiers was reduced to the greatest mi-
nery by a famine, so that Seco Arabsians and Moors are said
to have died in the streets for want in six weeks, chiefly
through the avarice of Jaffer's predecessor, who quitted his
administration with immense wealth amidst the executions
of the people. Jaffer was of a generous disposition, and did
every thing in his power to relieve and mitigate the dif-
rts of the country; he also exercised strict justice against tho-
ese who abused the power with which they were entrusted.
A plot, however, was formed against him; but the execution
of it was prevented by some of the principal officers of the
Janizaries to whom it was proposed; who declared, that
they would prefer being cut in pieces to the ignominy of
priving treasons to the Sultan, and his worthy Jaffer Agra.
By the inconstancy of the Ottoman court Jaffer was dis-
placed, and the infamous Hafian restored to the dignity of
bashaw. He cluded his life at Constantinople by poison,
administered to him by the renegade Cigala, who succeeded
him in the poll of captain bashaw. The new bashaw of
Algiers was Memmi Armao, an Albanian. This officer
exhibited signal proofs of his great capacity and strict justice;
and gave much satisfaction, not only to the Algerines, but
to the Christian merchants who traded with them. During
his administration, A.D. 1585, Morat Rais ventured to fall
through the Straits of Gibraltar into the Atlantic, and
thence to the Canaries, and he was the first of the Barba-
ry Corsairs who engaged in an expedition of this kind. After
a government of two years, Memmi was succeeded in 1586
by the rapacious Arshad, who purchased the vice-royship
of Algiers for a large sum, and exercised his government by
violent extortions. His successor Hidir gained the office by
the same means, and conducted it in a manner so haughty
and tyrannical, that the Algerines were made very happy by
his recall in 1592; but such was his interest with the Porte,
that after a short interval he was nominated bashaw a second
time, to the great concern and mortification of the Algerines.
Muftapha succeeded in displacing this arbitrary and rapacious
tyrant, and secured the affectionate attachment of the people
by his courteous and generous treatment; though nothing remark-
able happened, during his administration, excepting that he
repaired the mole, fortifications, and other public buildings.
At the beginning of the 17th century the Algerines
complained to the Porte in very strong terms of remonstrance
of the oppressive conduct of the Turkish viceroys, and in
consequence of this remonstrance obtained leave to chuse
their own Deys. They engaged, that the usual tribute
should be faithfully transmitted to the Porte; to acknow-
ledge the grand Signior for their sovereign; to be ready
on all occasions to assist him with their forces and ship-
ping; to pay a due respect to his bashaws; and to
maintain them in a manner suitable to their dignity;
provided that the government of Algiers should be wholly
committed to the direction of the Dey and his douwan. The
great douwan proceeded to the election of a Dey from their
own body, and to enact a variety of laws and regulations
for the better maintenance of this new form of government.
This century, however, opened with a fresh attempt of the
Spaniards on the capital of this kingdom, under the conduct
of the famous John Andrew Doris, but the event of it, in
consequence of adverse winds, was unsuccessful. The Al-
gerines, in order to counteract these renewed attempts, de-
termined to direct their attention to the improvement of
their navy; and in 1616 they had so far succeeded, that it
confisted of 40 sail of ships, of between 200 and 400 tons,
divided into two squadrons; one of 18 sail lay before the
port of Malta, and the other, without the Straits, at the
cape of Santa Maria, between Lisfon and Seville, where they
attacked all Christian ships, without distinction, that came
in their way, and rendered themselves formidable to all the
maritime states of Christendom. The French were the first
who dared to resent this contemptuous breach of treaty;
and M. Beaulieu was sent with a fleet of 50 sail of men
of war and galleys against the Algerines; but upon his departure,
they returned to their accustomed depredations on the Spa-
nish coasts, which, being felt by the expelled Mo-
roes, were exposed to all the barbarity and resentment of
these exasperated infidels. In 1620, in consequence of the
carnal solicitations of the Spanish court, by means of Gou-
demar, an English squadron was sent into the Mediterranean,
under the conduct of Admiral Sir Robert Manufel. He di-
rected his course to the bay of Algiers, and attempted to
set fire to the shipping in the harbour, but returned without
doing much damage. As soon as he retired, the Algerine
Corsairs put to sea, and made prize of about 40 good ships
belonging to the subjects of the English sovereign. With
all the European powers, except the Dutch, the Algerines
were at open defence; but to them they lent a proposal,
A.D. 1625, addressed to the prince of Orange, that if they
would fit out 20 sail of ships to be employed in the next
year against the Spaniards, they would join them with 60
sail; but the proposal was not accepted. In the next year
the Cologics, or Crousics, i.e. the children of such Turks
as had been permitted to marry at Algiers, formed a con-
spiracy, and seized on the citadel of Algiers, and had very
nearly made themselves masters of that place. The plot was
discovered, and the insurgents were defeated with great
glaughter. About two years after this conspiracy, the Al-
gerine fleet underwent a memorable change, by which they
became soon after able to shake off the Ottoman yoke, and
to become an independent state under their own Deys.
The occasion of this revolution was a truce for 25 years,
which Amurath IV. had concluded with the emperor Fer-
dinand II. This truce was universally disapprob'd by the
Barbary Corsairs; and by none more than the Algerines,
who were become haughty and opulent in consequence of
their gainful depredations on the Christians for the last three
years. They and their neighbours unanimously resolved,
not to let up for three independent states, and to consider them-
selves as wholly unconnected in any treaties which were
made by the Porte with any Christian power. Having
adopted this resolution, the Algerines began to make prizes
of several ships belonging to powers at peace with the Otto-
man Porte, and even purloined some of them to the port of
Rhodes and carried them off. They did the same at Salamis,
in the isle of Cyprus, and at Alexandretta, they not only
feized a Dutch ship and a polacre, but ventured on shore,
plundered the magazines and warehous'd, and then set them
on fire. They also drove the French away from a new fort,
called the bastion of France, which Louis XIII. depending
on his league with the Turks, had erected on their coasts,
instead of that which had been formerly constructed by the
Marfillaes. The Porte considered these depredations as open
instances
invasions of defiance to his authority; but as he was much occupied by the Perian war and other disturbances in the East, his grand vizir and courtiers were allowed to compound with these pirates, by securing them. Having, for form sake, reprimanded and threatened them, they returned an insinuous reply, declaring that they were the only bulwark against the Spaniards, who were the sworn enemies of the Moslem name, and that if they paid a punctilious regard to every circumstance that could procure peace or liberty to trade with the Ottoman empire, they must do fire to all their shipping, and become more camel-drivers in order to obtain a subsistence. Accordingly the Algerines pursued their piratical excursions at sea for many years with impunity. Amongst other enterprises in which they engaged, they surprised the bateau of France upon their own coast, containing about 600 inhabitants, whom, with all their effects and ships, they carried off to Algiers. In the course of the following year they fitted out a fleet, with which they ranged the seas and seized all the Christian shipping that fell in their way; and they even meditated an attack upon Loretto, which would have proved a great prize. But in this object they were prevented from succeeding by contrary winds; however they made a descent on Puglia, in the kingdom of Naples, where they made captives of both sexes, and fleeing towards Dubatini, they ferried the Adriatic, and loading themselves with immense plunder, left those coasts in the utmost consternation. The Venetians, alarmed at their depredations, equipped a powerful fleet of 28 sail, under the command of Admiral Capello, who had orders to burn, sink, and take all the Barbary corsairs, wherever he found them. The Algerine admiral was overtaken by this fleet; and an obstinate conflict ensued, which terminated in the defeat of the Algerine; but Capello was recalled, and the republic were under a necessity of purchasing peace with the Porte, at the expense of 500,000 ducats. The news of this defeat and loss, which were owing to the aversion of the Algerine admiral, filled Algiers with exasperable grief and consternation; and the whole city was preparing for a general insurrection; but it was prevented by a proclamation of the baflaw and douwan, who expressly prohibited all complaints under the severest penalties. Application was made to the Porte for an order, that the Venetians, settled in the Levant, should indemnify them for the loss they had sustained. Their request was rejected, and they were under a necessity of repairing their losses at their own expense. One of their corsairs loaned a freight of 600 slaves of both sexes, which he had brought from the coast of Iceland. In two years after this disaster, the Algerines appeared at sea with a stronger and more numerous fleet than they had ever equipped before. This fleet, consisting of 65 sail, besides other galleys and inferior vessels, performed many exploits in different parts of the Mediterranean, which our limits will not allow us to recount. It is sufficient to observe, that the Algerines became quickly more powerful and more formidable than ever to the European powers, and plundered the subjects of England, France and Holland. As for Spain, Portugal and Italy, they determined never to make any peace with them, as they were sworn enemies to the Mahometan religion. In this height of power and grandeur, which the Algerine state had attained, the English, French and Dutch were glad to secure peace with it at any rate. About the latter end of the reign of Charles II, the British nation obtained from the Algerines that peace, which, with some renewals, additions, and alterations, hath subsisted to this day. The outrages committed by them on the coasts of Provence and Languedoc, induced Louis XIV. to equip a considerable fleet, and the command of it was assigned to the marquis Du Poque, vice-admiral of France. Sailing to their capital, he bombarded and cannonaded it with such fury, that in a little time the whole town was in flames, and the terrified inhabitants were preparing to leave the place; but the wind suddenly changing, he was obliged to return for Toulon. When the storm abated, the douwan assembled and ordered a fleet of galleys and galley ships to sail immediately for the coasts of Provence, where they committed dreadful ravages. The French apprised of this outrage, fitted out a new armament at Toulon and Marseilles; and the Algerines repaired their walls and fortified the town, in order to be ready for their expected attack. In May 1683, the French squadron cast anchor before Algiers, as it was determined to bomb bomb the town, and the execution of this purpose was attended with dreadful havoc. Upon this the whole government of the town fixed for peace; but some delay having taken place with regard to the surrender of the Algerines, hostilities were renewed; and the greater part of the city was reduced to ashes, and the fire burnt with such vehemence, that the sea was enlightened by it to the distance of two above leagues. The Algerine commander, in the midst of this scene, caused all the French who were in the town to be cruelly butchered, and ordered their consuls to be taken alive to the mouth of a mortar, and shot against their navy instead of a bomb. The French admiral, exasperated by this unheard of instance of inhumanity, did not leave Algiers, till he had utterly destroyed all their shipping, fortifications, buildings, and, indeed, almost all the lower part, and above two-thirds of the upper part of the city. After his departure the Algerines seriously thought of procuring a peace with France; and for this purpose they deputed an ambassador to supplicate pardon for the murder of the consul, which they attributed to the populace, and to sue for peace. The speech of their envoy on this occasion was a masterly address. The result of their submission was a ratification of the peace at Paris in the course of the following year: upon which the Dey and douwan proceeded to repair the dreadful dilapidations which the metropolis had suffered. In 1686, the Algerines concluded a treaty of peace with England, which was renewed in the second year of James II. and in the second year of King William's reign, and again in the reign of George II., when all former treaties with the Algerine Republic were ratified. The only remedy to which recourse has been had for the occasional violations of this treaty has been that of making reprisals, instances of which have frequently occurred. But it was not till after the capture of Gibraltar and Port Mahon, by Sir George Rooke, that Great Britain could have a sufficient check upon them to oblige them to the observance of treaties; and since this period they have been accustomed to pay a greater deference to the English than to any other European power. In the year 1728 the Algerines retook from the Spaniards the city of Oran, and were at great pains to strengthen it with new fortifications; but notwithstanding the precautions, it was retaken in 1737. The year 1710 was principally propitious to Algiers, upon several accounts; as, firstly, the afflication of their worthies Dey Ibrahim, furnamed the Madman; and, secondly, the election of the brave Hali to the throne; and, thirdly, the expulsion of the Turkish bashaw, the abolishment of that dignity by the courage and address of the new Dey, and the union of that office with that of the Dey. This introduced that form of government which still subsists in Algiers. Mod. Un. Hist. vol. xv. p. 1-93. Robertson's Hist. of Ch. V. p. 98-102. p. 239—258.
The Government of the Algerines consists of the Dey, who may be compared to the former Dutch Statesholders, and of a deewan, or Common Council. The Dey is chosen out of the army; each order, even the most inferior, having an equal right and title to that dignity with the highest. Every bold and aspiring soldier, however obscure his origin, may be considered as the heir apparent to the throne; nor does he wait for the accession till he himself shall have removed the present ruler, provided that he can protect himself by the same feyector which he plagues into the breach of his predecessor. Accordingly the succession at Algiers has been usually very rapid; and Dr. Shaw observes, that nectarly one in ten has had the good fortune to die in his bed, and those who have enjoyed their power for a longer period, have secured it, not so much by the attachment and good will of the people, as by their own fagacity in preserving the first tendency of an insurrection; and by their ability to check it by the death of the conspirators before they have had an opportunity of accomplishing their designs.

This fainthearted and discontented government has, however, in some degree subsided, and the power of the Dey is more permanent than it used to be, though he is still liable to be deprived of it by unforeseen revolution, arising from trivial circumstances, and unavoidable afflication. The whole body of the militia is concerned in the election of a new Dey, and every person, however low his rank, claims a right of voting. Every election is of course generally attended with tumult, and sometimes with serious contests and bloodshed. When the choice is determined, the person elected is crowned with words which signify, "God bless, or prosper you!" and he is then invested with the kaftan, or insignia of sovereignty, whilst the Cadi, or Chief Judge, addresses him with a congratulatory speech, and an exhortation to govern with equity, and to maintain the liberty, and promote the welfare of his subjects. The deewan, or divan, at first consisted of about 800 military officers, without whose counsel and consent the Dey could not act; and on extraordinary occasions, all the officers that resided at Algiers, amounting to above 1500, were summoned to assist. But since the Dey's have become more powerful and independent, the deewan is principally composed of thirty yiah-bahaws, with the mufti and cadi, upon some emergencies; and upon the election of a new Dey, the whole soldiery, as we have observed, are allowed to give their votes. Of late the deewan is little regarded; it is, indeed, formally convened, for the purpose of functioning measures previously concerted between the Dey and his friends; so that, in effect, the whole power is lodged in one person. The next officer in dignity and power to the Dey is the Aqsa, a general of the Janizaries, who is one of the oldest officers of the army, and enjoys his post for two months, and is succeeded by the chiah, or next senior officer, or eldest yiah-bahaw. During these two months, the keys of the metropolis are in his custody; all military orders are signed in his name, and the sentence of the Dey upon any soldier that has offended, is executed in the court of his palace. When he is disabled, he is considered as muzoul, or superannuated, and receives his pay, and is occasionally summoned to assist with his advice, but not with his vote, at the grand council. The next officer to the aqsa is the secretary of state, who registers all public acts; and next to him are 24 or 30 chiah-bahaws, or chief colonels, from whom are commonly chosen ambassadors to foreign courts, or messengers, to incite the orders of the Dey throughout the empire. Next to these are the boolok-bahaws, or eldest captains; after them the old-dah-bahaws, or lieutenants, 400 in number; and other military officers are vakhurs, or purveyors of the army, paymasters and feudal. The officers now enumerated, compose the douwan. The strength of this kingdom consists of its land and sea forces. Its strong cities are few, and it has fewer garrisons, which are weakly fortified and guarded. Dr. Shaw, in 1732, computed the whole force of Algerians to be 6500 military Turks and Colouisles, 2000 of whom were excused from duty, 1000 employed in revenue garrisons, and the rest divided among their cruizing vessels, or forming the three flying camps, which, every summer, entertain the provincial viceroys. To the Turkish troops may be added about 2000 zouaves, as the Moorish horde and foot are called. The deficiency of their army is supplied by recruits collected by their cruizing vessels once in five or six years, in the Levant; and thence are commonly shepherds, outlaws, and perfons of the lowest condition. Besides those, the Dey, on occasions of emergency, enrolls the coloques, or colouisles, who are the sons of such soldiers as have been permitted to marry at Algiers; but these are dangerous persons, and are not much encouraged, and when they are admitted into the army, they are excluded from the honour of being Dey, aga of the Janizaries, and other considerable offices and employments.

The officers of the Algerine army are the aga or general, 30 chiah-bahaws or colonels, 800 boolok-bahaws or captains, and about 400 old-dah-bahaws or lieutenants; and these several corps are attainted, not by money or interest, but by seniority. The pay of the army is very small, the youngest soldier receiving only 40s. per day, and the oldest, or thief in full pay, no more than 5s. 6d., of which 6d. make a dollar. The whole army, therefore, with regard to its demands upon the government, may be reduced to about 3500, that is, less than 200,000 dollars, or betwixt 30 and 40,000l. of our money, will defray its expense. Besides the pay, the chiah and boolok-bahaws, that are unmarried, have each eight loaves of bread a day, and the old-dah-bahaws and private soldiers, of the same condition, have four; each being about five ounces in weight, and these aper in value. In their battles or engagements, the spahies or cavalry, are of little service; their principal dependence is on the infantry. Their fighting is always at a distance; small parties, or platoons, continually advancing in full career from the main body; and after they have discharged their fire-arms, or their javelins, they as speedily retreat, and make way for others; and hence it happens, that if a few persons are killed, the battle is called bloody.

The naval force of Algiers is more formidable than its army. It commonly consists of 20 ships; one of which belongs to the government, and is assigned to the admiral; but all the rest belong to private persons. The Corsairs, though they are not allowed any concern in the affairs of state, nor in the election of the Dey, are held in great esteem, on account of the prizes they continually bring in, which are one main source of the public revenue, and the means of procuring them respect from the Christian powers for the security of their trade. The government claims an eighth part of all the prizes, slaves, cargo and vessel; the rei being divided amongst the proprietors and ship's company. Passengers are entitled to a share in their prizes. All the officers of the ships must be either Turks or Colouisles; the Moors not being allowed to come upon the quarter-deck, or into the gun-room, unless they are sent for; but Christian slaves are permitted to act as seamen or inferior officers, and allowed a share according to their abilities and behaviour. The Dey of Algiers pays no other revenue to the Porte than a certain number of fine boys, or youths, and some other annual presents. His own income is variously computed: some estimating it at 40,000 ducats, whilst others raise it to 40,000, and others to 600,000. Dr. Shaw computes the yearly taxes of the whole kingdom at 300,000 dollars;
The religion of the Algerines differs from that of the Turks only in their adopting a greater variety of superstitions. They acknowledge the Koran as the rule of their faith and practice, but are remiss in the observance of it. They have three principal officers, who preside in religious matters, viz. the Mufti, or High Priest; the Cadi, or Chief Judge in ecclesiastical, and some other concerns, civil and military, that are referred to him, and the grand Marabout. These three officers have their seats in the great dawan next under the Dey, and on his right hand. The cadi is obliged to attend at the court of justice once or twice a day, to hear and determine complaints. But affairs of moment are submitted to the Dey, or, in his absence, to the treasurer, master of the horse, or other principal officers of the regency, who sit in the gate of the palace, according to a custom recognized in Scripture (Deut. xxvii. 15. xxv. 7. Is. xxix. 21. Amos v. 10. Dan. ii. 49.) for that purpose. The caufe is thus quickly decided, and sentence executed in less than an hour. In cases of debt, the debtor is usually detained in prison till the bailiff seizes his effects and sells them; after sale, if there be an overplus, it is returned to the prisoner; if the amount falls short, he is released, and no further demands are made upon him. The ballinado, which is inflicted with small flicks about the size of the finger, which are brought in bundles to the place of punishment, is the punishment of small offenders, and it is applied to the belly, back, or soles of the feet, according to the nature of the crime, or the pleasure of the judge, who likewise appoints the number of strokes to be given. For clipping or debasing the public coin, the old Egyptian punishment of cutting off the hands of the transgressors is inflicted. When a Jew or Christian slave, or sbjebct, is guilty of murder, or any other capital crime, he is carried without the gates of the city, and burnt alive; but the Moors and Arabs are either impaled for the same crime, or else they are hung up by the neck over the battlements of the city walls, or else thrown upon the clashing or hooks, that are fixed over the walls below, where sometimes they break from one hook to another, and hang in the most exquisite torments, 30 or 40 hours. The Turks are not publicly punished, but sent to the house of the Aga, where, according to the quality of the offence, they are batinadoed or strangled. When the women offend, they are sent to some private house of correction; and if the crime be capital, as when they are taken in adultery, &c. they are tied up in a sack, carried out to sea, and drowned. The western Moors use the barbarous punishment of sawing the body of the criminal in two. See Matth. xxiv. 51. Luke xii. 46. Heb. xi. 37. For this purpose they prepare two boards, of a proper length and breadth, and having tied the criminal between them, they proceed to the execution by beginning at the head. A person of the first rank in that country, who had been ambassador at the British Court, was put to death in this manner.

As to the population of Algiers, it is not easily ascertained; but we may observe in general, that it is much less than in other countries of the same extent, where arts, sciences and industry are not so much restrained. Tracts of country are here uninhabited and uncultivated; not to add, that defpoticism, want of commercial intercourse in the inland provinces, and the frequent ravages of the plague, contribute to the diminution of the inhabitants. The soil of this country is generally fertile, and more especially towards the sea-coast and in the valleys. There are few forests, but tracts of thickets and brushwood are more common. The most woody part of the country, and that which supplies the greatest quantity of timber, is the district about Bugia. Upon the whole, the face of the country is mountainous, and in the
chairs of its mountains there are various minerals, particularly lead and copper. The fertility of the soil decreases in approaching Sahara or the Desert, although in its borders, and even in the Desert itself, there are some districts which are capable of cultivation, and in which produce corn, figs and dates. These regions are inhabited by Nomadical tribes, who, valuing themselves on their independence, endure with stoical and resignation, the inconveniences attending their condition, and scarce regret the want of the advantages and comforts that pertain to a civilized state of society. The cultivated parts of this country enjoy a wholesome and temperate air; and the climate is distinguished by the equality of its temperature; the barometer indicating all the changes of the weather from 29 to 30, 4, or within the space of 1, 3 inches. The winds generally blow from the east, or from the west by the north to the east; those from the east are common at Algiers from May to September, and then the westerly winds become the most frequent. The northerly winds, which blow from the Sahara, are usually hot and violent, but not frequent. When they blow for five or six days together in July and August, they are very suffocating, and the inhabitants sprinkle the floors of their rooms with water or vinegar. The quantity of rain that annually falls in Algiers is, at a medium, 27 or 28 inches; but in this climate little or no rain falls in the summer season, and in most parts of the Sahara they have no rain at all. The first rains fall in September, and sometimes a month later; after which, or about the middle of October, wheat is sown and beans are planted. Barley is sown about the end of November. If the latter rains fall, as usual, in the middle of April, the crop is deemed secure; and the harvest comes on in the end of May or beginning of June. The inhabitants cultivate, not only wheat and barley, but rice, Indian corn, and a kind of millet, called drab, which they prefer to barley in fattening their cattle, and which they are obliged to guard from the depredation of birds, by a screaming noise continued through the whole day. Here they tread out their corn after the primitive customs of the East, by spreading the sheaves open, and driving mules or horses round about the neddars or threshing-floors. When the grain is trodden out, they winnow it by throwing it up against the wind with a flowel; they then lodge it in the mattatoires, or subterraneous magazines. Of the pulse kiad, beans, lentils, kidney beans, and the chic pea, are the most abundant; and of the roots, herbs and fruits of the kitchen garden, they have a very considerable variety. For the zoology, ornithology, &c. of Algiers, see Bārbarā.

The inhabitants of the Algerine state are partly Turks, partly Moors, and partly Christians and Jews. The Turks have been established since the middle of the sixteenth century; they form the highest rank in the country, and possess all the offices and employments. According to the constitution of Algiers, no native can be a Turk; he alone is regarded as a genuine Turk, and entitled to the privileges of this class, who is descended from Mahometan parents, or born of a Mahometan mother, in the dominions of the Grand Seignior. The number of Turks at Algiers was formerly computed to be from 14 to 16,000; but they are now reduced to 9 or 10,000; and they are reckoned, with regard to their disposition and character, ignorant, proud, indolent, voluptuous, jealous and revengeful; but at the same time faithful, sincere, courageous and tolerant. With ideas of superiority, brought with them from their own country, and enlarged by the privileges which are granted to them at Algiers, the mere Turk considers himself far superior to the Moors, Christians and Jews. Their principal enjoyment consists in ease and inactivity. Besides the qualities we have already mentioned, the Turks are noted for their avarice. It is therefore proverbial. "Give a Turk money with one hand, and he will permit his eyes to be plucked out by the other." Nevertheless, he is faithful to his engagements, and a stranger to dissimulation. With regard to those who do not profess their religion, they are generally compassionate and tolerant; and infidues have occurred, in which Turks have exalted their Christian slaves to the observance of the external rites of Christian worship: but they despise and abhor apostates and renegades. As to their privileges, they pay no poll-tax, and they have an exclusive title to all the chief offices of the state: they cannot be punished except by the express order of the Dey; when condemned to die, they are strangled; they purchase the necessaries of life at a lower price than others; and from gardens and vineyards that are not enclosed by high walls, they may take as much fruit as they can eat; and their testimony, other circumstances being equal, is always held in higher estimation than that of the Moors, Jews and Christians.

The chiefs of persons next in rank and dignity to the Turks, consist of the Collices or Coloris, who are the children of Turks by women that are natives of Algiers. The number of these, in the vicinity of the capital, is considerable, and they compose some of the richest and most respectable families in the country. They form a middle class between the Turks and Moors, and resemble the former in courage, pride, jealousy, and voluptuouness, but are more laborious and diligent; and they partake of the perfidy and dissimulation of the Moors, and also of their propensity to superstition. In corporeal strength and form they are not inferior to the Turks; and they belong to the most intelligent and cultivated part of the inhabitants of Algiers, so that the most expert artificers and artificers are of this class.

Under the general name of Moors, who constitute another division of Algerines, are comprehended the Moors, properly so called, the Cabyles or Kabyles, mixed with Berbers or Brebers, and several Arabian tribes. The Moors are very distinct from the Negroes, as their natural colour, unchanged by the burning rays of the sun, is as white and beautiful as that of the natives of the South of France, of Spain and Italy. With respect to their moral character, they are inferior to the Turks. They are malicious, sullen, cowardly, revengeful, fanatical, ignorant, superstitious, fraudulent,avaricious, and among the lower classes, thievish and rapacious. But they are more active than the Turks, and they have an inclination for commerce and the mechanic arts. Those of them who live in cities and engage in commerce, are more polished and less edious in their disposition and manners; some of them are rich, and look down with contempt on the Turks, though they feethe them and secure their patronage by dissimulation and flattery. Of these some are addicted to study, but their knowledge extends little beyond the Koran and History. The less wealthy Moors are artificers, and some of them mariners. In the lowest class of Moors, inhabiting the cities, are found the most abandoned and profligate persons, who cannot be restrained from crimes of every kind, except by a degree of severity approaching to cruelty. The biscares, however, form a small exception. Of the Moors, who inhabit the country, few are wealthy; they are ignorant and rude, and strangers to the benefits and pleasures of social life. They retain the ancient custom of distinguishing themselves by families and tribes, which is lost among those who live in towns. Some of them lead a wandering life, and others gain a subsistence by cultivating the land for the richer among themselves, or for the Turks, or for the Collices. Among the Moorish tribes in the country polygamy prevails, but this practice does not prevail in towns.

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The Moors are not admitted into the infantry of the Algerian flote, which is the most honourable and useful corps, but they compose the cavalry of the Dey, which is not much esteemed. The Moorish mountaineers are denominated Cabyles. The Arabian tribes, who inhabit the Algerine dominions, are those who, without blending with the Moors, or most ancient possessors of the country, have uniformly maintained their separation from others, partly in a state of independence, and partly as tributaries to the Dey. They are distinguished from the rest by their language, rude manners, and a peculiar mode of living; and also by a degree of pride which leads them to look upon themselves as better and more noble than others. They are also distinguished by their love of liberty. They live either in the desert, or on inaccessible ridges of mountains, divided into families and clans, under the patriarchal government of a chief, who may be considered as the judge, instructor, and leader of his tribe. Their wealth consists in their flocks and herds. Whenever they think themseives secure, they descend from the mountains into the plain country. The number of these marauders decreases every year. The Arab tribes that are the subjects of the Algerine flote, pay a small tribute, and are treated with great lenity, that they may not be provoked to unite with the Cabyles and the independent Arabs. The number of Jews in Algiers is not considerable; they are despised and oppressed, distinguished by a dress of dark colour, restrained from acquiring landed property, and forbidden to ride through the gates or in the city. If a Jew be attacked, he would incur danger by defending himself against the abuse of the Turks and Moors, and therefore they purchase the protection either of powerful Turks, or European consuls. The Algerine Jews are, in general, very superstitious and superfluous, and also cowardly, pernicious, avaricious, and addicted to cheating and fraud. In their own concerns they are amenable to the civil law, and have an elder amongst them, known by the appellation of "King of the Jews."

The number of negroes annually imported as slaves into Algiers, amounts to from 150 to 180; and their price varies from 50 to 150 sequins. The females are often kept as concubines by the wealthy Turks and Moors. Most of these slaves obtain their freedom, either gratuitously or by purchase; and during their slavery, they are treated with lenity, and severe usage is noticed and even punished by the government. Both negro and Christian slaves are employed at Algiers in the same offices with our dominical servants. But Jews and Christians are forbidden to keep negro slaves who profess the Mahometan religion. An emancipated slave becomes entitled to the same privileges with the Moors.

The Christians of Algiers are tractable and sedentary; and can hardly be reckoned in any class of inhabitants. They are feldom found in the open country. On the western coast the Spaniards occupy Oran and Mafalquieh; but the greater part of the citizens who reside there consist of fugitives from their native land, and derive a scanty subsistence from the garrison; and destitute of trade, agriculture and manufactures, pass their time in indolence and wretchedness. The Christians in other cities are, generally speaking, all slaves. Some of them are such as have been captured by the Algerine corsairs: of whom some are selected by the Dey, and the rest are sold in the market-place to the highest bidder. The other Christian slaves are such as enter of their own accord into a state of slavery; and these are for the most part defectors from the Spanish garrison at Oran and Mafalquieh; so that Oran is the nursery of this class of slaves, amounting annually to about 100. As to the treatment of these Christian slaves, those that are defectors from Oran, and those that are captured by the cruisers, are treated without discrimination; they are generally well kept, but overwhelmed with labour or cruel usage. Those who attend upon the Dey live sumptuously, and are richly clad, but they must indule themselves from society, and are seldom allowed to leave the palace. The young and most beautiful are exposed to the seduction of licentious courtiers. Others, who are the property of the flote, are employed in dock-yards and magazines, and are under the command of Turkish tall-masters. They labour in the hands of fun-fest, and their fare is coarse; and their accommodations at night, amidst the filth and vermin and corrupt air of the bagnios, are more intolerable than the fatigues of the day. The condition of slaves, purchased by private persons, is, upon the whole, preferable to that of those who belong to the flote. In the cities, they are employed as menial servants; in the country, they cultivate the vineyards and gardens. Who have an opportunity to acquire property, take taverns in the city, and gradually become rich. Those slaves who had been captured by the corsairs, often regain their liberty by being ransomed; but the Oranite slaves have seldom any hopes of deliverance. Sometimes the government of a country ransoms all its slaves without exception, which was the case with the French in 1784. Their number, however, is not commonly very great. In 1785, the year after the French ransomed, it amounted to about 2000. In 1786 and 1787, 500 Spaniards and Neapolitans were ransomed, and about 700 died of the plague; so that there remained about 800, most of whom were defectors from Oran.

As to those called renegades, there are few of them in this country. They are either Jews or Christians. The former, of whom there are commonly more women than men, renounce the faith of their ancestors, and embrace the predominant religion of the country, for the purpose of being revenged of their relations, or with a view to escape from merited and apprehended punishment, or from motives of ambition or interest. If such persons possess talents and render service to the government, they are esteemed equal to the Cololics, and have a chance of being advanced to honourable and lucrative employments. The admiral of the Algerine fleet was a renegade, and formerly a Jew. Of Christian renegades the number is not so great. The zeal to gain proselytes from Christianity is abated: such conversions are not now encouraged, and in many instances not permitted, as the proprietors of the slaves would be losers, and be deprived of the expected ransom. Renegades are despised and disdained, and not without reason, for most of them are in judgment and affliction attached neither to one religion nor to the other. Shaw's Travels. Pallin: Pitt's Account of the Religion and Manners of the Mahometans, ed. iv. 1738. Pallin: Mod. Un. Hist. vol. xiv. p. 455—456. 8vo.

Algiers, the capital of the country above described, was formerly called Meqams, from an African family of that name, and derives its present name Algiers, or Al-fedrin, the island, from its being in the vicinity of the caisson mound of the harbour, which, before the time of the Turkish conquest, was defiled from the continent. Some have supposed that this was the ancient Icosium; but Dr. Shaw is of opinion that the ruins of a Roman city on the banks of the river Hrach, the ancient Suvius, four miles to the south-east of Algiers, bids rather than Algiers to be the ancient Icosium. The city is situated on the declivity of a hill, and is built in the form of an amphitheatre. The house rises gradually above one another, and their roofs or terraces are flat and white, so that at sea it appears, fays Pitts, like the top-fail of a ship, or like a whitener's ground covered with linen. It is, fays Dr. Shaw, about a mile and a half in circuit, and is computed to contain about 2000 Christian slaves,
flavens, 15,000 Jews, and 100,000 Mahometans. But since
this time the number has been much reduced; and the number
of inhabitants is now estimated at about 80,000, in
which number are included several thousand Jewish families.
It is surrounded by high walls, 12 feet thick, flanked with
spire towers, but so decayed as to afford very little de-
tence. A ditch, 20 feet wide and seven deep, formerly en-
compassed the whole city, but is now almost filled with
rubbish. It has five gates, which are open from sun-rise to
sun-set; and without the walls seven castles or forts, of
which the greatest is that on the mole, all which are supplied
with cannon. Its best defence is towards the sea.
The mole, the work of Hayradin, the son of Barbaroffa, is built
on the small island that faces the town, in form of a large fe-
nicule, with a handomne opening into the haven, which
is 150 fathoms long, and 80 broad, and where the largest
vessels may ride so as to be secure from the violence of the
waves. The mole is defended by a cattle, which stands upon
the solid rock, and which also serves as a light-house. It has
three batteries of cannon. At the south end of the island
is another fort, consisting of three batteries, to defend the en-
trance of the harbour. There are also other forts along the
coast.
In the town there is but one handomne street, which
reaches from the east to the west end, and in which are the
bell-hops, the houses of the principal merchants, and the mar-
ket for corn and all provisions. All the other streets are so
narrow that two persons cannot walk abreast, and the middle
being much lower than the sides for the reception of water and
filth, the passage of camels, horses, mules and affies, renders it
still more inconvenient and disagreeable for foot passengers.
It is still more dangerous to meet with a Turkisb folder, to whom
the wealthiest Christian must give way, or be likely to be felt
the effects of his brutal remoncement. The houses are supposed
to be placed thus near to each other, either to shelter them
from the sun, or for the convenience of mutual support, by
means of props, when earthquakes occur. They are
built of brick or stone, mostly square, with a paved court in
the middle, somewhat like our old inns; round this court
there are galleries supported by columns, and over these a se-
cond range, and upon this upper gallery are the terraces,
which serve for walking or drying linen. Their chimney
risers in the form of a cupola on the four corners of the ver-
terace, and their houses are whitewashed every year. As the
houses are contiguous, a person may walk from one end of
the town to the other along the terraces, and in this way
they keep up an intercourse with each other. The houses
of private people are within meanly fitted up and furnish-
ed, but those of the rich are inured with marble, supported on
columns, and have their ceilings finely carved, painted and
 gilt. The most magnificent building is the palace of the
Dey, in the midst of the city, which has two spacious halls,
in one of which the dowan meets thrice a week. The bar-
 rackes for the Turkisb folderie are likewise grand edifices
and each of themcontains about 600; their mosques are nu-
merous, of which the larger are seven, and the baths are
many and spacious, but they are of different kinds, for the
accommodation of persons of every rank and condition.
Bes-
dies the public baths and those appropriated to women,
there are others called balios, which are loth some prians,
and in which their flames sleep every night. There are some
handome edifices without the walls of the town, and a great
number of tombs, some of which are adorned with chapels
and oratories, to which the men and women repair every Fri-
day. The city of Algiers, which had formerly neither wells
nor fountains, is now supplied with excellent water by two
aqueducts, which convey it from the adjacent mountains to
a number of fountains at convenient distances from one ano-
other. The territory about Algiers is very fertile; the hills
and valleys are every where ornamented with gardens, groves,
and country-feeding, which, besides the shade and recreation, afford a beautiful prospect towards
the sea. The gardens are flooded with plenty of fruit-trees, melons, and pot-herbs, and well watered by a multitude of
fountains and rivulets. Algiers, although it has many forts,
and though in former times it has encountered the assaults
of some of the greatest powers of Christendom, is but weakly
defended, and incapable of sustaining a regular siege. The
Spaniards, however, attacked it in 1775, both by land and
sea, with a force consisting of about 25,000 foot, and 2000
horse, 47 king's ships of different rates, and 346 transports,
and were repulsed with great losses. In 1783 and 1784, their
attacks were renewed, but without success. N. lat. 36°
40' 50". E. long. 2° 12' 45". The bay of Algiers lies to the
cal of the city, and the mole that forms the harbour is 500
paces long, and here is anchorage in 18 to 25 fathoms water.
Cape Matiou lies to the north-eaft extremity of the bay,
and Cape Caixies to the north-west of the city, and the
western limit of the bay.
ALGOA BAY, or Zwartkops, a bay of South Africa,
situate in S. lat. 35° 56'. E. long. 26° 53', and distant from
the Cape of Good Hope 800 miles. Mr. Barrow, a late
traveller, fuggests, that from the vicinity of this place to the
falt-pan, from the enfe of procuring bullocks in good condi-
tion, and from the abundance of excellent fish on the coast,
great benefits would accrue to the East India company, if
an establishment was formed for the preparation of salted
beef and fish. The river Zwartkops flows through a valley,
in which our traveller found a species of antelope, called the
riet-bok, or red-goat, hitherto undescribed by naturalists.
ALGODONALES ISLANDS lie on the coast of Peru,
in S. lat. 21° 56', and W. long. 72° 56', eight leagues north
from the harbour of Cobija, and afford fresh water.
ALGODRES, a district of Beira, in Portugal, contain-
ing eight parishes and 450 inhabitants.
ALGOIDES, in Botany, a name given by Vaillant to
a genus of plants, called by Micheli and Linnaceus Zanri-
cella.
ALGOL, or Medusa's Head, in Astronomy, a star of the
second magnitude, in the constellation Perseus. This star
has been subject to singular variations, appearing at different
times of different magnitudes, from the fourth to the se-
cond, which is its usual appearance. These variations were
noticed at the close of the last century by Montanari and
Maraldi; also by Flamstead, 1696 and 1711; but they
have been more accurately observed by Mr. Goodricke, at
York, in 1783, who has, by comparing a great variety of
observations, determined the period of their return to be 2°,
20°, 48°, 56°. As to the cause of this variation, Mr. Good-
ricke conjectures, that it may be owing either to the interpo-
fision of a large body revolving round Algol, or to some mo-
tion of its own, in consequence of which, part of its body,
covered with spots or such like matter, is periodically turned
towards the earth. M. de la Lande, comparing his own ob-
servations with those of Mr. Goodricke, and M. Wurm, of
Nurtingen, determines the period of variation to be 2°, 20°,
ALGOMEIZA, a name given to the fish Procon.
ALGONQUINS, in Geography, an Indian nation of
North America, which formerly possessed considerable
tracts of land along the north-west shores of the river St. Lawrence,
in Canada. As hunters and warriors they had no rivals, and
were
were long in alliance with the Iroquois; whom they agreed to protect from all invaders, whilst the Iroquois stipulated to pay them a tribute out of the produce of the earth, and to perform for them all the menial duties, such as faying the game, curing the flesh, and dressing the skins. At length the Iroquois associated with the Algonquins in their hunting matches and military expeditions; but by degrees the Algonquins became jealous of their allies and allies, and murdered several of their number. The Iroquois for some time flushed their resentment, but determining upon revenge, they applied to the study of the art of war, as it was practised among the savage nations; and having acquired a competent knowledge, which they improved by experience, they attacked the Algonquins with such fury, that, unless they had been preferred by the interposition of the French, their whole race would have been exterminated. They are daily decreasing in number, chiefly principally on fishing and hunting, and have scarcely any notion of agriculture. The Algonquins are now dispersed along the river Atawar, and occupy different parts of Upper Canada, above the lakes Huron, Ontario, and Superior. The lake of the Two Mountains, which may be deemed the commencement of the Utawas river, and which is about 20 miles long, and three wide, and surrounded by cultivated fields, is nominally in possession of the two tribes of Iroquois and Algonquins, whose village is situated in a delightful point of land under the hills, which, under the denomination of mountains, give a name to the lake. Near the extremity of the point their church is built, which divides the village into two parts, forming a regular angle along the water-side. On the cliff is the situation of the Algonquins, and on the west one of the Iroquois, containing in all of about 800 warriors. Each party has its missionary, and divine worship is performed, according to the rites of the Roman church, in their respective languages, in the same church: and so affluents, it is said, have their pastors been, that these people have been instructed in reading and writing in their own language, and are better taught than the Canadians of the country of the lower ranks; but notwithstanding these advantages, and though the establishment is nearly coeval with the colonization of the country, they do not advance towards a state of civilization, but retain their ancient habits, language and customs, and are becoming every day more depraved, indigent, and insignificant. The country round them, though capable of cultivation, presents only a few miserable patches of ground, fenced by the women with maize and vegetables. During the winter season they leave their habitations and their pastures to follow the chase, according to the custom of their forefathers. A tribe of the Algonquin nation occupies the parts adjacent to the lake Sepoongui. Some few families inhabit the island of St. Joseph, near the lake Huron; also a village, near the fall of St. Mary, about 50 miles farther towards the north-west, which are ravaged for one-half of the year, and in a state of intoxication for the other half, and the coasts of lake Superior, where they live chiefly on fish. The residence of the chief, or Sachem, of all the Algonquin tribes inhabiting different parts of the country, is at the trading establishment, situated on a high bank on the north side of the river La Pluie, in N. lat. 48° 37'. This chief is by way of distinction called Neetam, implying personal pre-eminence. In this place the elders met in council to treat of peace or war. Of this tribe some few are found near the Assiniboine river, who are in almost constant hostility with the Nadowas. These of them who occupy the country near lake Winnepic and its source, are employed in fur-hunting, so that they thus acquire the additional articles of cloth, blankets, &c. but their passion for rum puts it out of their power to supply themselves with real necessaries. The Al-

The Algonquins and Algonkians are supposed by some intelligent travelers to have been originally the same people, and to have inhabited the Atlantic coast, the banks of the river St. Lawrence, and adjacent countries. Their progress has been slower, and they are now found well and north as far as Athabasca. The language of the Algonquins is one of the three principal languages, or of those which have been called radic, or mother tongues, amongst the Indians of Canada. The other two are the Iroquois and the Huron. By means of an acquaintance with the Algonquian and Huron languages, a person may travel 1500 leagues in this country without an interpreter. The Algonquian language is said to exist only in the Hurons in smoothness and elegance. See Knitstoneaux. The Baron d'Houtan has given a small dictionary on the Algonquian language; Reland has also given a gloss on several words of the same. The firm is entitled, Mem. de l'Amer. Sept. Hag. 1703; the half is in his Diff. Mife. p. 3 Diff. 2. Mod. Un. Hill. vol. xxxv. p. 379. Mackenzie's Voyages, &c. through the Continent of North America, &c. p. 25, 65, &c.

ALGOR is used by some Medical Writers, to denote a preternatural coldness or chills in a part. Muys speaks, in this sense, of an algor of the arm, attended with an atrophy.

ALGORAB, in Astronomy, a fixed star of the third magnitude, in the right wing of the constellation Corvus.

ALGORITHM, or Algorism, an Arabic term, which some authors, and especially the Spaniards, make use of to signify the practical operation of several parts of Specious arithmetic or algebra. Sometimes it is also used for the practice of common arithmetic, by ten numeral figures.

Algorithm is properly the art of numbering truly and readily; and comprehends the six common rules of arithmetical algebra. It is sometimes called Logistica numerosa. We say the algorithm of integers, the algorithm of fractions, the algorithm of whole numbers, &c.

ALGOSAREIL, in Botany, a name used by Avicenna, and some other authors, for the common wild carrot, or Daucus sylvestris.

ALGOW, or Algo, in Geography, a canton of Germany, in the circle of Swabia, bounded on the north by the Danube, on the east by the Leck, on the west by the Hegow and the lake of Constance, and on the south by the county of Tyrol. It includes the marquisate of Burgau, the counties of Bregent and Montfort, the territory of the bishop of Augsburg, the abbey of Kempten, of the counts of Fuggar, Waldburg, Konigseck and Mindelheim; with the cities of Augsburg, Kempten, Memmingen, Huy, Lindau, Biberac and Wagen.

ALGOZO, a small place of Traz-oz-Montes, in Portugal, situated on the river Macas, containing 20 parishes, and about 400 inhabitants.

AlGUASIL, in the Spanish Policy, a ferjeant or official of a judge, or magistrate, appointed to see his decrees executed.

ALGUELL, in Geography, a town of Africa, in the empire of Morocco and province of Hec.

ALHABOR, among the Arabian Astronomers, is that star commonly called Sirius.

ALHIAGI, in Botany, a species of Hedysarum. The inhabitants of Mesopotamia and the eastern countries gather from this shrub a kind of manna, by means of the juice which transudes from its leaves; in the form of drops of various sizes, which is indurated by the heat of the sun. Tournefort has particularly described this tree, and made a distinct genus of it, under the name of Alhag. The shrub grows plentifully about Taurus; it has been also found in Tinos, and in many plains of Armenia and Georgia; and the manna is known in the Levant by the name of Terenjas.
The leaves are said to be of a hot dry nature, and the natives use the flowers as a purgative, one handful of which, boiled in water, fulfills for a dose. Let us return to our subject.

ALHAMBRA. in Geography, a pleasant town of Spain, in the province of Granada, situated in a narrow valley between high and very steep mountains; and having warm baths and medicinal waters that are much frequented. It was taken by the Moors, after a gallant defence, in 1481, and surrendered to the pillage of the Christian soldiers, who, besides pillaging an immense quantity of gold and jewels, made slaves of 3300 of the inhabitants. It is about 25 miles southwest of Granada, and 28 miles north-east of Malaga. N. lat. 36° 59'. W. long. 3° 46'.

ALHAMA, a town of Spain, in Cordova, near the Sierra Morena, nine leagues west of Cordova.

ALHAMA is also a town or village of Spain, in Aragon, celebrated for its medicinal waters.

ALHAMA de Saoa, a town of Spain, in Granada, situate on the river Almeria, ten miles north-north-west of Almeria.

ALHAMBRA, a town of Spain, in Aragon, seven miles north of Teruel.

ALHAMBRA is also a river of Spain, which joins the Guadalquivir at Teruel.

ALHAMBRA, one of the four wards of the ancient city of Granada, so called by the Moors from the red colour of its materials, Alhambra signifying a red house; and by the Spaniards in Sierra del Sol, because, by its elevation on a high mountain, it is exposed to the rising sun. The inhabitants consist of the descendants of the ancient Moors. In this district are two palaces, one built by the Moors, the other by Charles V. and Philip II. The first, which is very large, is environed with walls, towers, and battlements; and both command, by their eminence, an extensive and delightful prospect. Above the old Moorish palace is the magnificent and beautiful house of Xencarifa, which was also built by a Moorish prince; and on the top of the mountain stands a church dedicated to St. Helena. The Moorish palace, according to the description given of it by Stubbs in his Travels, appears to have been a most magnificent and astonishing edifice. The court to which you are first admitted, called the Comuna, or del Mosico, i.e. the common baths, is an oblong square, with a deep basin of clear water in the middle, into which is a descent by two flights of marble steps, and having on each side a perron of marble with a row of orange trees. A peristyle, paved with marble, runs round the court, and the arches are supported by pillars, in a style different from all the regular orders of architecture; and the cievings and walls are incrusted with flanco fret-work. In every division are Arabian sentences of different lengths, denoting "there is no conqueror but God;" and "obedience and honour to our Lord Abouaboulah." The cievings are gilt or painted, and the colours still retain their freshness; the lower part of the walls is Mochaic, disposed in fantastic knots and festoons. The porches resemble grotto-work; and that on the right-hand opens into an octagon vault under the emperor's palace, which forms a whispering-gallery, communicating between the offices of both houses. Opposite to the door by which you enter into the Comuna, is another leading into the cuarto de los leones, or apartment of the lions; which is an oblong court, 100 feet long, and 50 broad, encompassed by a colonnade, seven feet broad on the sides, and ten at the end. Two porticoes or cabinets, about 15 feet square, project into the court at two extremities. The square is paved with coloured tiles, and the colonnade with white marble. The walls are covered to the height of five feet from the ground with blue and yellow tiles, placed chequerwise. Above and below is a border of small leaf-shaped, enamelled blue and gold, with an Arabian motto on a bend, signifying, "No Conqueror but God." The columns that support the roof and gallery are of white marble, very slender, fantastically adorned, and irregularly disposed. The cievings of the portico is much more highly finished than that of the Comuna. The capitals are of various designs. Amidst the varieties of foliages, grotesques, and strange ornaments, there does not occur the slightest representation of animal life. About each arch is a large square of arabesques, surrounded with a rim of characters that are generally quotations from the Koran. Over the pillar is another square of beautiful foliages, and higher up is a kind of wooden cornice, enriched with carving as much as the flanco below. Over this projects a roof of red tiles, which disfigure this beautiful square, and which has been lately added when the Alhambra was repaired. In Moorish times the buildings were covered with large painted and glazed tiles, some of which still remain. In the centre of the court are twelve ill-formed lions muzzle, bearing upon their backs an enormous bason, out of which rives another of smaller size. When the pipes were kept in order, a volume of water was thrown up, which, falling into the bason, passed through these lions, and was discharged out of their mouths into a larger reservoir, communicating by channels with the jets d'eau in the apartments. This fountain is of white marble, adorned with festoons and Arabic ditiches, to this purpose. "Seest thou not how the water flows copiously like the Nile?" "This resembles a sea washing over its shores, threatening shipwreck to the mariner." "This water runs abundantly to give drink to the lions." "Terrible as the lion is working in the day of battle," "The Nile gives glory to the King, and the lofty mountains proclaim it." "This garden is fertile in delight; God takes care that no noxious animal shall approach it." "The fair princes that walk in this garden, covered with pearls, ornaments its beauty so much, that thou mayest doubt whether it be a fountain that flows, or the tears of her admirers." Beyond the colonnade, and on its south side, is a circular room used by the men as a place for drinking coffee, &c. And it was refresb in summer by a fountain. The form of this hall, the elegance of its cupola, the cheerful distribution of light from above, and the exquisite manner in which the flanco is designed, painted, and finished, exceed all powers of description. In this delightful scene, it is said, Abouaboulah assembled the Alencarrages, and caused their heads to be struck off into the fountain. At the head of a court are two rooms, which are suppos'd to have been tribunals, or audience chambers. Opposite to the Sala de las Alencarrages is the entrance into the Torre de las dos Hermanas, or the tower of the two sisters, so denominated from two very beautiful pieces of marble laid as flags in the pavement. This gate exceeds all the rest in profusion of ornaments, and in beauty of prospect, which it affords through a range of apartments, where a multitude of arches terminate in a large window open into the country. In a gleam of sunshining, the variety of tints and lights thrown upon this enfilade are uncommonly rich. The first hall is the concert-room where the women sat; the musicians played above in four balconies. In the middle is a jet d'eau. The marble pavement is much admired for both the size of the flags and evenness of the colour. The two sisters, which give name to the room, are slabs measuring 15 feet by 7½, without flaw or flaw. The walls, to a certain height, are mosaic, and, above, are divided into neat compartments of flanco. The cievings is a fretted cove. For preferring this vaulted roof,
and some other of the principal cupolas, the outward walls of the towers are raised 10 feet above the top of the dome, and support another roof over all, so that no injury can be occasioned by wet weather, or excessive heat and cold. From this hall you pass round the little myrtle garden of Lindaraxa into an additional building constructed at the east end by Charles V. His admired motto, "plus oultre," appears on every beam. This leads to a little tower, called, El tower, or the dressing-room of the Sultana; in one corner of which is a large marble flag, penetrated with holes, through which the smoke of perfumes ascended from furnaces below; and here, it is supposed, the Moorish queen fumigated and sweetened her person. The emperor caused this room to be painted with representations of his wars, and a variety of grotesques, which appear to be copies or imitations of those in the loggie of the Vatican. From hence you go through a long passage to the hall of ambassadors, which is magnificently decorated with innumerable varieties of mosaics, and the medallions of all the kings of Granada. This antechamber opens on the left hand into the Communa, and on the right into the great audience hall in the tower of Comares, which is a noble apartment, 36 feet square, 36 high to the cornice, and 18 from thence to the centre of the cupola. The lower range of windows is 19 feet high; the walls on three sides are 15 feet thick, and on the other side the whole wall is lined with mosaics of many colours, disposed in intricate knots, stars, and other figures. In every part various Arabic sentences are repeated.

The lower floor of the palace consisted of bed-chambers and summer-rooms; the most remarkable of which is the king's bed-chamber, which, by means of a gallery, communicated with the upper story. The beds were placed in two alcoves upon a raised pavement of blue and white tiles; but it has been repaired, and probably altered by Philip V. In the middle a fountain played for refreshing the apartment in hot weather. Behind the alcoves are small doors that lead to the royal baths. These consist of one small closet, with marble cillars, for washing children, two rooms for grown-up persons, and vaults for furnaces and boilers that supplied the baths with water and the stoves with vapour. The troughs are formed of large slabs of white marble; the walls are ornamented with party-coloured earthenware, and light is admitted by holes in the covering ceiling. At a small distance is a whispering-gallery, and a kind of labyrinth, that has been designed for the amusement of women and children. One of the passages is fenced off with a strong iron grate, and called the Parus of the Sultana; but it was more probably intended for preventing intruders from climbing into the women's quarters. Under the closet-room is a long gallery, called the King's Study; and adjoining to it are several vaults, Ibid. to be the burial-place of the royal family. In the retrospective view of this sumptuous palace, we need not wonder that the Moors thought of Granada with regret; and that they should still offer up prayers every Friday for the recovery of this city, which they regard as a terrestrial paradise.

ALHADAL, a term in the Arabic Pharmacy, signifying coloquint. The troches of alhaddal, trocchet al- handal, are a kind of troches, compounded of coloquint, bitilium, and gum tragacanth. The word is formed of the Arabic handal, or bandial, a name for coloquint. They are esteemed good purgatives, and are used on divers occasions.

ALHANDRA, in Geography, a town of Portugal, in Estremadura, containing two parishes, and about 1350 inhabitants.

ALHANGA, a small town of Spain, in Estremadura, belonging to the order of St. James, seated on an eminence, and defended by a strong, castellated wall, standing on a rock.

ALHAUR, a river of Asia, which runs into the Sakkaria, eight miles south of Amster.

ALHAUS, a town of Prussia, four miles south of Culm.

ALHAZEN, in Biography, a learned Arabic, lived in Spain about the close of the 11th, or beginning of the 12th century; though Montucla says, that it is not known what was the precise period in which he lived. He wrote a treatise on astrology; and another on optics, which was printed in Latin in the Thesaurus Optici of Kifher, in 1572. In this optical treatise he gives a tolerable description of the eye, and discourses largely concerning the nature of vision; maintaining that the crystalline humour is the most important organ for this purpose, without considering it as a lens, and asserting that vision is not completed till the ideas of external objects are conveyed by the optic nerves to the brain. He accounts for simple vision with two eyes, by supposing, that when two corresponding parts of the retina are affected, the mind perceives but one image; and he treats very minutely of optical deceptions, both in direct vision, and also in vision by reflected and refracted light. Alhazen pursued his inquiries into the nature of reflection much further, and with greater success, than the more ancient writers. He deduces from experimental and general reasoning several properties of atmospheric reflection, observing, that it increases the altitudes of all celestial objects; and he was the first who advanced the notion, that the stars are sometimes seen above the horizon by means of reflection, when they are really below it. He also observed, that refraction contracts the diameters and distances of the heavenly bodies, and that it is the cause of the twinkling of the stars.

Alhazen supposed, that the refraction of the atmosphere did not depend upon its vapours, but upon its different transparency, that is, as Montucla understands his meaning, the density of the gross air contiguous to the earth, and the other or subtle air that lies beyond it. In examining the effects of refraction, he endeavours to prove that it is so far from being the cause of the heavenly bodies appearing larger near the horizon, that it would make them appear less; two stars, he says, appearing nearer together in the horizon than near the meridian. This phenomenon he ranks among optical deceptions. We judge, says he, of distance, by comparing the angle under which objects appear with their supposed distance; so that if these angles be nearly equal, and the distance of one object be conceived to be greater than that of the other, it will be imagined to be the larger. And he adds, that the sky near the horizon is always imagined to be farther from us than any other part of the concave surface. In the writings of Alhazen, we find the first distinct account of the magnifying power of glasses, and he probably suggested the hints which led to the useful invention of spectacles; for, he says, that if an object be applied close to the base of a larger segment of glass, it will appear magnified; he also treats of the appearance of an object through a globe, and says, that he was the first that found out the refraction of rays into the eye. Alhazen's optics were much illustrated by Vitello in a treatise published in 1270. Smith's Optics, Remarks, § 89, p. 15. Pritchley's Hist. of Vision, 88. 1772. p. 17--20. Montucla's Hist. des Mathem. tom. i. p. 307.

ALHIAH, in Botany, a name by which Dr. Shaw and others have called a genus of plants, since named by Linnaeus Lawsonia. See ALCANNA.

ALHIJADAE, or ALIDAJ, the index or label of an astronomical or geometrical instrument, for taking of heights or distances. The word is Arabic, and it signifies the same thing. In Greek and Latin it is called distans, dioptra, and lineus fiducia, fiducial line. The alhijada is a kind of ruler, moveable
ALI

marched on the centre of the instrument, and carrying two
figs, which are erected perpendicularly at the two exter-

eral, in Astronomy, a fixed star of the third mag-
itude, in the constellation Capricorn. This is other-
wise called rostrum gallicum. Near this star, in the year 1600,
appeared a new star, which lasted twenty-one years, and then
disappeared again.

ALHUY'S Point, in Geography, is situated upon a river
falling into the Baltic, in a bay which bears nearly N. N. W.
a little westerly from the island of Bornholm. If a ship is a
league east of this point, the course will be due north to the
bottom of the bay, having the land all the way on the tur-
board, but the depth of the water is uncertain. It is in N.
lat. 55° 30'. E. long. 14° 30'. Malham's Naval Gaz.

ALI, in Biography, the son of Abu Taleb, who was un-
cler of Mahomet, and was eminently distinguished among the
Mahometans, both during the life and after the death of
their prophet. Ali was an early convert to the divine nifi-
ition of his cousin, and contributed, in no small degree, by his
 zeal and activity, to the success of his cause. Having been
taken in his infancy under the protection of Abubeker, the
father-in-law of Mahomet, and the ardent promoter of his
interest, he was directed by his patron to summon the kind-
dred of the prophet, to receive from him a solemn declara-
tion of his prophetic office. Mahomet, after announcing his
commission to his assembled relatives, asked them who would
become his vizir or vicegerent? Whilt they were hesitating,
Ali started up and exclaimed, with the enthusiasm that
marked his character, "I, O prophet of God, will be thy
vizir; I myself will beat out the teeth, pull out the eyes,
rip open the bellies, and cut off the legs of all who shall dare
to oppose thee." Upon this Mahomet embraced Ali with
great affection, and enjoined all who were present to regard
him as his deputy. To him he afterwards committed the
promulgation of the ninth chapter of the Koran; which com-
mission he executed at Mecca, by reading 29 or 30 verses of
this chapter to those who were assembled, and then announce-
ing to them four particulars which were strictly to be ob-

ferred, viz., "that no idolater is to come near the temple of
Mecca after this year;" "that no man is to presume to com-
plain of the Caaba naked for the future;" "that none but
true believers shall enter paradise;" and "that public faith
is to be kept." Ali was equally celebrated for his eloquence
and his valor; his surname of "the Lion of God, always
victorious," sufficiently evinces his military renown; and as he
succeeded his father in being chief of the illustrious family
of Hashem, and hereditary guardian of the city and temple
of Mecca, and had married Fatimah, the daughter of Maho-
met, his talents and his rank, as well as his near relation to
the prophet, and the personal favor by which he had been
distinguished, established claims of pre-eminence, which
aturally directed his views to the honour of succeeding Maho-
met in the regal office. To this honour he also aspired; but
he wisely declined contending for it during the three cal-
hipates of Abubeker, Omar, and Othman. Upon the as-
fallation of the last of these, Ali was unanimously elected
caliph. When he was urged by some of the chief Muds-
to accept the office, he said to them, "If you intend to re-
ognize my authority as the successor of Mahomet, I swear
to be faithful to me, or else permit me to take the oath of alle-
giance to one of you." As soon as he was elected, he hail-
tened to the mosque at Medina, at the time of prayer, in a
thin cotton gown, tied about him with a girdle, with a coarse
turban upon his head, carrying his slippers in one hand, and
in the other a bow, which he used as a walking stick, and
was there publicly inaugurated, in the 35th year of the He-
gira, A. D. 655. As soon as Ayehia, the daughter of Ab-
beker, and the widow of Mahomet, heard of Ali's election,
She expressed her disapprobation; having conceived an invin-
ducible prejudice against him, because, as it is said, he had dis-
covered her infidelity to the prophet; and Telha and Zobeir,
two persons of great influence, who had concurred in the
choice, fled to Bafforah, and there raised the standard of re-
bellion. Ali had also routed the renegades of a strong party,
by displacing those governors of the provinces, who had
been appointed by his predecessor Othman. Ayehia appeared
at the head of the malcontents at Bafforah, and there Ali
met them with an inferior force with regard to number, but
formed of veteran troops. Ayehia was mounted on a great
camel, in a pavilion reimbasing a fortress, from which
the sun ancient the day of battle was called the day of the
camel. Ali gained a complete victory. Telha was slain in
the engagement; Zobeir was afterwards assassinated; and Ayehia
was taken prisoner; and, after some submission, treated cour-
tously, and sent back to Medina. The next enterprise of
Ali was directed against Moawiyah, a former governor of
Syria, who had been proclaimed caliph, and was supported
by the house of Omnah, and by Amr, the conqueror of
Egypt. The army of Ali pitched their camp at the west-
ern banks of the Euphrates. Several skirmishes, and an in-
excitable challenge of Moawiyah to single combat,
the hostile forces engaged, and the contest was continued all
night, to the great disadvantage of the Syrians; and this
night was denominated by the Arab historians, "the valiant
night." As victory was likely soon to be decided in fa-
avour of Ali, Moawiyah, in concert with Amru, contrived an
artifice that might induce the caliph's men to desert. With
this view they ordered some of their men to carry lances,
bearing upon their points copies of the Koran, at the head
of the troops, and to cry out as they advanced, "This is the
book that ought to decide all differences between us; this is
the book of God between us and you, which absolutely pro-
hibits the effusion of human blood." Ali was thus compelled
by some of his troops, who threw down their arms, to found a
re-
treat, and thus to give up the contest in the moment of vic-
tory, and after having lost, as it is said, 25,000 men, and killed
45,000 of the enemy. The dispute was submitted to arbit-
ration, and the two parties, by whole award it was to be
determined, concurred in deposing Ali. Sentence was pro-
ounced on a tribunal erected between the two armies. Abu
Mula, one of the arbitrators, first pronounced his award:
"I depose from the caliphate both Ali and Moawiyah, in
the same manner as I take this ring off my finger." Amru,
the other arbitrator, immediately ascended the tribunal, and
said, "I concur with Abu Mula in deposing Ali, and con-
der the caliphate upon Moawiyah; I therefore invest that
prince with the supreme authority in the same manner as I
put this ring on my finger. And this I am the more dis-
posed to do, as he lies jolice on his side; having been de-
clared by Othman his successor, and being the most worthy
of the Muds to occupy the high station to which I now
advance him." Thus commenced that schism among the
Mahometans, which has produced animosity and mutual ex-
communication, and which is visible to this day in the rooted
antipathy that subsists betwixt the Turks and Persians. Ali
and his adherents were disaffected and irritated; but they
were under the necessity of acquiescing and retiring to Cufa,
where Ali was soon defeated by the Kharejites, i. e. as the
name imports, rebels or revolutionists. These were called
Mudhakmites, or judicarians, because the reason they gave for
their revolt was, that Ali had referred a matter concerning
the religion of God to the judgment of men; whereas, in
such case, the judgment belonged solely to God. The
Kharejites
Kharejites, not convinced by Ali's reasoning, associated in arms, and fixed upon Naharwan, about four miles to the east of the Tigris, for their place of rendezvous. Ali marched out against them, and having reclaimed most of them to their former attachment by persuasion, he destroyed the rest in battle, and gained again the possession of Arabia. But his rival Moawiyah established himself in Syria and Persia, and Amur was feigned upon him in his name. The Syrians also made an inursion into Ali's territories, exercised great cruelty, and committed many depredations. At this time three of the Kharejites happening to meet at Mecca, concerned in lamenting the miseries of the civil war which the people were enduring, and resolved to terminate them by assassinating the principal authors of them, viz. Ali, Moawiyah, and Amur. One of them hastened to Damascas, and wounded Moawiyah, but the wound, though dangerous, was not mortal. Another went to Egypt, and entering a mosque, where he expected to find Amur, mistook another person for him, and dispatched him, whilst Amur survived unhurt. The third conspirator, whose name was Abdalrahman, was more successful than either of his two profligate companions. Having arrived at Cufa, he engaged two associates, who joined in assassinating Ali at the door of the mosque, when Abdalrahman gave him the fatal blow. The expiring caliph left in charge with his son Hānif, in case of his death, to execute the assassin at once, thus humanely guarding against the lingering torments which usually accompanied the death of offenders. Ali, pierced as it is said, by a poisoned sword, expired on the fifth day after his wound, in the 63d, 57th, or 58th year of his age, for such are the different accounts that are given of his age, in the 40th year of the Hegira, A.D. 665. His sepulture at Cufa was concealed till the expiration of the caliphate of the Omansides; but in the year of the Hegira 357, A. D. 977, Addād ed Dowlat erected a superb monument over it, which has been decorated by the Persian kings, called, "the dome of the distributor of lights and graces," and regarded as a great object of the devotion of his votaries. A city, called Mehed Ali, has also been built to his honour, not far from the ruins of Cufa. Some of his most zealous devotees supplicate that he is still alive, and expect his advent in the clouds of heaven to fill the earth with justice. Ali, after the death of Patima, by whom he had three sons, Hānif, Housan, and Moahfain, the first of whom succeeded him, had eight other wives. The Mollem writers, particularly those of his time, speak highly of his corporeal, mental, and moral endowments. They extol his valour, munificence, and benignity of temper. Among them he also ranks high as to his learning. There are still extant his "Centiloquium," or collection of a hundred maxims or sentences, which has been translated from the Arabic into the Persian and Turkish, part of which has been published in English by Mr. Ockley; and also his "Divan," or collection of verses. But his most celebrated relic is a parchment, written in mystical characters, intermixed with figures, prophetic of all the events that are to happen in the world. This was a deposit in the hands of his family. Many of Ali's sayings and apothegms are recorded by authors: one of the most instructive is the following: "He who would be rich without wealth, powerful without subjects, and a subject without matter, has only to forsake sin and serve God."

The apellations by which Ali was honoured by the Arabs are very distinguishing and honourable. On account of his superior bravery, they called him "Al Haidar," the lion, and "the victorious Lion of God." They also designated him "Wafī," i.e. legatee or heir of Mahomet, and "Mortādī," q. d. beloved by, and acceptable to God.

He was also called by his followers, "the distributor of lights and graces;" and "the king of men."

Ali has given denomination to a sect or party among the Mahometans, who adhere to the right of succession of Ali, the fourth caliph, or successor of Mahomet, and the reform of Muuffiyanin introduced by him. The sectaries of Ali are more particularly called Shiites, and stand opposed to the Sunnites, or sect of Omar, who adhere to the law as left by Mahomet, Abubeker and Omar. The followers of Ali have possessed various states in Asia and Africa; and at present the Persians, part of the Ufque Tartars, and some Mahometan sovereigns of India are of the sect of Ali; whilst the Turks are of the sect of Omar, and hold Ali in execration. The distinguishing badge of Ali's followers is a red turban, which is worn by the Persians, who are hence called, in derision by the Turks, "Kililbacht," i.e. red heads. Mod. Un. Hist. c. ii. vol. i. Gen. Dict. Sale's Prel. Dife. to the Koran.

Ali BEY, an eastern adventurer, whose history and exploits have interested much attention, was probably born among the Abazans, a people inhabiting Mount Caucasus, and brought by the slave-merchants to one of the annual fairs at Cairo, where he was purchased by the brothers, Isaac and Yousef, Jews, employed in the custom-house, and by them presented to Ibrahim, a kiau, or veteran colonel of janizaries, who was then one of the most considerable men in Egypt. At this time he is supposed to have been 12 or 14 years of age. By the favour of his patron, to whom he rendered the usual services of the Mamlooks, he was taught to read and write, and to perform the customary exercises of a military kind, in which he displayed a fire and activity that obtained for him the appellation of dandala, or madman. At the age of 18 or 20 his beard was allowed to grow, or he was made free; and his patron gave him a wife and revenues, promoted him to the rank of kachef, or governor of a district; and at length procured him to be elected one of the 24 bey's. Thus favoured and advanced, his ambition was excited; and the death of Ibrahim, in 1757, opened a free course for the execution of his projects. After an absence of a few years, during which he had been engaged in a variety of intrigues, for rousing and displacing several chiefs, and two years of which he had passed in a state of exile in Said, or Upper Egypt, devising and maturing his plans of future dominion, he returned to Cairo in 1766; and in one night killed four beys, who were his enemies, banished four others, and thus became from that time the chief of the most numerous party. Not contented with the titular title and dependent office of bey, he aspired to the title and honour of Sultan of Egypt; and with these views he determined to throw off the supremacy of the Porte; and accordingly he expelled the pacha, refused the customary tribute, and in 1768, he proceeded to coin money in his own name. The attention of the Porte was so much occupied by other concerns that he was under a necessity of temporising; and Ali, well apprised of his situation, pushed forward his enterprises with success. He began with dispelling Hamman, an Arab sheik, of a port of the Said, which he had occupied, and where he had formed a power capable of giving disturbance; and towards the end of this year, 1769, he fitted out some vessels at Suez, which were ordered to seize on Djedda, the port of Mecca, whith a body of cavalry marched by land to take possession of Mecca itself, which was given up to plunder. The project which he had formed, in consequence of the suggession of a Venetian merchant, was to make Europe abandon the passage to the East Indies by the Cape of Good Hope, by substituting the ancient route of the Medi-

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determined and the Red Sea. Flushed with success in the petty enterprises he had already accomplished, and flattered by his foreign courtiers, his ambition suggested to him more extensive conquests. Syria was the first object of his contemplation; and the war with the Russians, which broke out in 1769, and which occupied all the Turkish forces in the north, favoured his design. Besides, thee Daher, in actual rebellion against the Porte, would be a powerful and faithful ally; and the extortions of the pacha of Damascus disposed those he had oppressed for revolt, and made way for his obtaining the title of the deliverer of nations. Ali having laid his plan, detached in 1770 a corps of Mamlouks to take possession of Gaza, and thus to secure an entrance intoPalestine: and soon after he sent a larger army, to form a junction with Daher at Acre, and to proceed from thence to Damascus. Ofman, pasha of Damascus, was diligent in his preparations, and collected an army equally numerous and ill regulated. On the 6th of June 1771, the two armies met, and a decisive action took place, in which Mohammed, the friend of Ali, and Daher his ally, proved victorious. They immediately took possession of Damascus; but the battle refitted. At the moment when the signal of surrender was expected, Mohammed suddenly commanded a retreat, and all his cavalry turned towards Egypt. This singular revolution was at first attributed to a pretended report of the death of Ali Bey; but it was really owing to a conference which had passed the preceding night between a crafty agent of Ofman and Mohammed Bey, Ali's commander. Ali, though disappointed and chagrined, did not renounce his projects; he prepared, in conjunction with Daher, a second army for the campaign of 1772; but the event was unpropitious. The escape of Mohammed routed his jealousy and his fears; he beheld in him a dangerous rival, and revolved on his ruin. Having ordered the gates of Cairo to be shut, and no Mamlouk to be allowed to pass, he sentenced Mohammed into immediate exile in the Said. Mohammed, however, contrived to make his escape; and from this moment all was lost. The Mamlouks, wearied with the influence of Ali Bey, repaired to crowds to his rival, and in about six weeks he left the Said, with a strong force, and marched towards Cairo. Ali prepared to meet him; and in the month of April 1772, the two armies had a rencontre in the plains of El-Mafateb, at the gates of Cairo; the issue of which was, that Mohammed and his party entered the city, fabre in hand; and Ali Bey had barely time to escape with 800 of his Mamlouks. With this inconsiderable force he repaired to Gaza, and attempted to join his ally, Daher, at Acre, who, after some danger from which he was rescued, conducted him to Acre. Both Ali and Daher marched to the succour of Said, (Sidon) which was then besieged by the troops of Ofman, in conjunction with the Druzes. At their approach the Turks raised the siege, and retired to a place about a league north of the city, on the river Aouila. There, in July 1772, an engagement took place; and the Turkish army, three times more numerous than that of the two allies, was entirely defeated. The seven pachas, who commanded it, fled; and Said remained in the possession of Daher. Ali Bey and Daher, on their return to Acre, proceeded to chastise the inhabitants of Yafa or Jaffa, who had revolted; and after a siege of eight months the town capitulated in February 1773. Ali now determined to return to Cairo; and he was encouraged in his purpose by the promised succours of Daher, and of the Ruffians. This affiance was delayed, and Ali became impatient. In April 1773, quickened in the execution of his purpose, by fabricated letters, which he received from Cairo, he began his march at the head of his Mamlouks, and some troops furnished by Daher; but when he advanced into the Defart, which separates Gaza from Egypt, he fell into an ambush of 1600 Mamlouks, who were waiting his arrival. This corps was commanded by Mourad, a young bey, who, being enamoured of the wife of Ali Bey, had obtained a promise of her from Mohammed, in case he should bring him the head of Ali. The attack was impetuou; Mourad met with Ali in the crowd, wounded him in the forehead, made him prisoner, and conducted him to Mohammed. By his former master, Ali was received with perjuries of respect; but on the third day, this parade of civility and politeness terminated by the death of Ali Bey, who, according to some, died of his wounds; or, as others report, by poison.

Ali Bey was certainly a character of original vigour and capacity; and was superior in his views to what could have been expected from one who was bred in a school of barbarism and ignorance. He governed Egypt with a steady hand, and was particularly favourable to the Franks; but he undertook more than he had power or talents to perform, and exhausted his revenues in brutality and enterprises. He is also blamed for too soon resigning active labours to his lieutenants, and for placing unlimited confidence in his favourites, and winking at the exactions of his officers. His morals were those of his chiefs and country, where perjury and murder are allowable means in pursuing the objects of ambition; yet he was not devoid of generosity and a sense of justice. During his administration, several nests of robbers in Egypt were annihilated, villages which had been inhabited by the pirates of the Nile were razed; the communication between different parts of the country was free; the roads were no longer infested with robbers, nor was navigation interrupted by that spirit of pillage, which, since his death, has resumed its fatal activity. It was his wish, "that every man might be able to carry his purse in his hand, and leave his door open, even during the night, without running any risk."

Volney has pointed out the errors of Savary's account of this singular person and the source whence they were derived. Volney's Travels in Egypt and Syria, vol. i. c. 8. p. 114-142. Sonnini's Travels in Egypt, p. 391; 410. Gen. Biog.

ALI, in Geography, a town of Aisa, in the country of Georgia, 50 miles west of Teliia.

AIL, a town of Aisa, in the country of Georgia, in the province of Satabago; 22 miles south-west of Akalkaza.

ALLA, in Geography, a town of Aisa, in the country of Greece, in the province of Satabago; 22 miles south-west of Akalkaza.

ALLA, in Greek Antiquity, Io loco games celebrated at Rhodes on the 24th day of the month Corpica, corresponding to the Athenian Bedromion, in honour of the sun, Φως, or Abelos, who is said to have been born there; the inhabitants of which were hence called Παλαιοί, Heliadri. The victors were crowned with poplar. Strabo, tom. ii. p. 966.

ALIBADD, in Geography, a town of Peria, in the province of Tabrissian, 16 leagues south-west of Perabad.

ALICAMON, or Haliacmon, in Ancient Geography, a river of Macedon, separating it from Thessaly, rises in the Penész mountains, and running south-west, enters the bay of Thessalonika, between the cities of Pydna and Dlam.

ALJAKI, in Geography, a town of Poland in the province of Kiev, 20 miles south-east of Czerskys.

ALJAMELIA is a name which the Morefooses in Spain give to the language of the Spaniards.

Among other articles agreed on by the junta, which was appointed
appointed by the emperor Charles V. in 1526, in favour of the Moriscos, this was one, that the Moriscos should no longer speak Algarvarela, i.e. Moorish, or Arabic, but should all speak Aljamia, i.e. Spanish, as it was called by the Moors, and all their writings and contracts should be in that language. Geddes's Misc. Tracts, tom. i. p. 23.

ALIANA, in Geography, a bishoprick of Phrygia, subject to the metropolis of Laodicea.

ALIANNELO, a town of Italy in the kingdom of Naples, and province of Baisiliki, 27 miles call of Potenza.

ALIANO, a town of Naples, in the province of Baisiliki, 23 miles south-call of Potenza.

ALIANO is also a town of Naples, in the country of Lavora, two miles west of Gaeta.

ALIANSKOI, a fort of Russian Siberia, in the government of Kolivan, 120 miles south-west of Kolivan.

N. lat. 51° 50'. E. long. 79° 34'.

ALIBUCHA, in Natural History, the Arabian name for a large kind of rat, the Jebra of other writers, common in that country, and good to eat, according to Bochart, who thinks it the same as the jophan, mentioned in Leviticus, and there declared unclean. Levit. xi. 5.

Dr. Shaw thinks the fapanian to be the daman fard, or a species of rabbit.

ALIARDI, in Ancient Geography, a people of Africa, according to Ptolemey.

ALIARIA, a town of Comagena, placed by Antonin, in the route from Nicopolis to Edessa.

ALIARTUS. See Halartus.

ALIAS, in Law, a second or farther writ issued from the courts of Westminster, after copias, &c. sued out without effect.

ALIBACA, in Ancient Geography, a town placed by Ptolemey, in the Pentapolis.

ALIBANI, or Alibiania, in Geography, a town of Arabia, 140 miles south-east of Amazifirdin.

ALIBAG Rrei, a town of European Turkey in Bulgaria, eight leagues east of Silihria.

ALIBI, in Law, denotes the absence of the accused from the place where he is charged with having committed a crime; or his being elsewhere, as the word imports, at the time specified.

ALICA, in the Ancient Physic and Diet, a kind of food; but the various accounts given of it by authors, make it uncertain what it was; some representing it as a sort of grain, and others as an aliment made of grain.

The Greek word for alica was ὀλιγας, which term, and ῥοδας, seem to have been general names for all spelt or luted grain, beaten or ground into a pulp.

Ray, in his history, says the alica differs from the χολης, as the genus from the species.

ALICA, in Geography, a town of Italy in the duchy of Toulouse, 29 miles west south-west of Florence.

ALICANDRA, or Alidraca, in Ancient Geography, a town placed by Ptolemey in Media.

ALICANE, in Geography, a river towards the south-west part of the island of Ceylon, nearly east from Barbary isle, and south from Calture.

ALICANT, a small, but well-built, rich, populous, and fortified sea-port town of Spain, in the kingdom of Valencia. It is situated on the Mediterranean, between a mountain, on which the castle stands, and the sea; and it is well defended by iron battlements. This mountain is white, and being visible at a great distance, seems a guide to pilots. The bay in which it stands is sheltered on the eall by Cape
The bark of this tree, well beaten and macerated, yields a coarse thread, of which they make their ropes, and which macerated and dried, and beaten with bars of iron or wood, becomes like a large piece of cloth, with which the natives cover their middles from the girdle to the knees. The shell or rind of the fruit, which is hard like that of a gourd or calabash, being freed from its pulp, which in time of scarcity may be made into a nourishing soup, serves for vessels of various kinds, and gives to water, preserved in it, a pleasant aromatic taste. The small leaves are eaten in time of scarcity, and the large ones serve to cover houses, or being burned, to make good soap. Mod. Un. Hist. vol. xii. p. 23. 8vo.

ALICONEA, in Entomology, the name given by Cramer to the Papilio Julia.

ALICUDA, or Alicur, one of the Lipari islands, near the coast of Sicily. N. lat. 38° 31'. E. long. 14° 32'. This island is about six miles in circuit; its population is not so great as that of Felicuda, which contains about 650 inhabitants, and the houses are built at the south and south-east end of the island, on the declivities of the mountains about halfway up their ascent, in order to be guarded against the nightly surprizes and attack of the Tunisian Corsairs. Beelds Indian figs, and some olive-trees, these two islands contain many vines, from the grape of which a good wine is made, though it be not malmsey, nor the grape the pasilla or pasoline. The corn grown here is barley and wheat, which, together with the grapes, amount in value of produce to about 3000 Neapolitan crowns. The industry and patience of the people of Alicuda are incredible: they do not lose an inch of the ground they cultivate. Their soil is almost wholly interrupted by points of rocks, mazes of lava, clefts and crags; and yet they render tracks of this kind productive, by turning and breaking them with pointed spades: so that the Lipari are very favorably of them, that the people of Alicuda till their lands with the point of a knife. In all the Æolian isles there is not better bread than that of Alicuda. Three or four fishing boats belong to this island, which are mostly the property of the parish priest, and are employed for the augmentation of their ecclesiastical revenues, amounting to little more than 12 sequins. There is not a single spring of fresh water either in Alicuda or Felicuda; and therefore when it does not rain for several months, the difficulties of the inhabitants are extreme. They have no ferpents in these islands, as they furnish no food necessary for their sustenance. The people are exempted, on account of their poverty, from every kind of taxation, the tythes which they pay to the bishop excepted. These islanders, notwithstanding their extreme poverty, and inhabiting huts, formed of pieces of lava, scarcely admitting a ray of light, and appearing like the nests of birds hung to the cliffs, are singularly contented and happy. Their fare consists of black barley bread, and wild fruits, and sometimes, by way of dainty, salt fish, and their drink of pure water; and yet such is the temperature of the climate, and the fabulous quality of the air, that they enjoy, with little interruption, health of body and cheerfulness of mind. The vellages of fire are discernible in every part of this island, but the actual existence of volcanic eruptions and conflagration precedes the records of history. The volcanic materials, now found in it, and particularly examined by the accurate and industrious Spallanzani in his visit to this island, are pumices, tufas, and glaices, and great quantities of lava, in detached globules and continued currents, which have petroleum for their bane. Dolomieu was of opinion, that Felicuda and Alicuda had once formed a single conical mountain, which had been opened and separated on one side; but Spallanzani alleges several circumstances that evince the improbability of this opinion. Although these two islands exhibit numerous and indubitable characters of fire, no signs of it in a state of activity are now to be seen. The ancient name of Alicuda was Erivusa; and the author of the epitome of Stephanus says, that it was so named from the eris or heath which grows there plentifully. Strabo likewise (ib. vi.) informs us, that these two islands derived their names from plants. But in the time of Aristotle and Strabo, and other ancient writers, the confusions in these two islands, as they are unnoticed by them, must have been entirely extinguished. Spallanzani's Travels in the two Sicilies, vol. iii. c. 18.—vol. iv. c. 24.

ALICULA, in Antiquity, a kind of puerile habit worn by the Roman children. This was a sort of chlamys; some explained it by tunica manicata.

ALICYRNA, in Ancient Geography, a place of Greece, fituate, according to Steph. Byz. in Acarania, and according to the peripils of Sylax in Ttolia. It is probably the Icyrena of other authors, to the north of Calydon on the borders of the sea.

ALIDES, in the Mahometan History, the descendants of Ali, otherwise called Sulimines. See Ali.

ALIEIS, in Ancient Geography, a sea-port town of Peloponnesus, in Laconia, inhabited by fishermen, whence its Greek name.

ALIE-KRUUK, in Natural History, a Dutch name given to a kind of sea-fowl, the history of which is given by Swammerdam. Bib. Nat. tom. i. p. 180.

ALJEMBUT, or, as some write it, gembut, in Botany, a name given by the Arabs, Aviceena, and others, to a species of acacia, which they also call the Nabathuan pod, and curation, or filiga, and which some have supposed to be the same with the common carob; but they expressly disbelieve it, by laying that it is an altringent, whereas the other is gently purgative; and that the fruit of it was given in hemorrhages. Nay, Idefore goes so far as to say, that the acacia juice of the hops was made of its fruit, while unripe.

ALIEN, in Law, a stranger or person born out of the king's allegiance; or under the jurisdiction of some other sovereign, and not naturalized, or made a denizen.

Of these there are two kinds; viz. alien friends, who are of those countries which are at peace and league with us; and alien enemies, who are of countries at war with us; to which some add a third, viz. alien infidels.

A man born out of the land, but within the limits of the king's obedience beyond the seas; or of English parents out of the king's obedience, provided the parents at the time of the birth be of such obedience, is no alien, but a subject of the king, Ex. 2. 25 Edw. III. commonly called the statute De nativ. ultra mare.

By several more modern statutes, (7 Ann. c. 5. 10 Ann. c. 5. 4 Geo. II. c. 21, and 13 Geo. III. c. 21.) these restrictions are further taken off; so that all children born out of the king's allegiance whose fathers, or grandparents by the father's side, were natural born subjects, though their mothers were aliens, are now deemed to be natural born subjects themselves to all intents and purposes, unless their said ancestors were attainted, or banished beyond seas for high treason; or were at the birth of such children in the service of a prince at enmity with Great Britain. But the grandsons of such ancestors shall not be privileged in respect of the aliens duty, except they be protestants, and actually reside within
within the realm; nor shall be enabled to claim any estate or interest, unless the same be made within five years after the same shall accrue. The children of aliens born in England are, generally speaking, natural born subjects, and entitled to all the privileges of such. 1 Comm. 373.

By the Stat. 11 & 12 W. III. cap. 6, all persons being the king’s natural born subjects, may inherit as heirs to their ancestors, though their ancestors were aliens. Children of an ambassador in a foreign country by a woman who is an English woman, are natural born subjects by the common law. 7 Rep. 11. And if an English merchant living beyond sea, marries a wife there, and hath a child by her and dies, this child is born a denizen, and shall have the benefit of the law, notwithstanding the wife be an alien. Cro. Car. 655. Persons born in English plantations are natural born subjects.

An alien can hold no land by decret or purchase, or be tenant by courteous, or in dower; and if he purchase, the king shall have it; but he may purchase a house for years of habitation, during his residence, as necessary for trade. If an alien merchant leaves the kingdom, the king shall have the lease; if he be no merchant, the king shall have his lease for years, though it were for his habitation; and by the Stat. 32 Hen. VIII. there is a penalty for letting houses to aliens. 5 Rep. 502.—7 Rep. 18.—1 Inst. 2. 129.—2. Inst. 741.

By 13 Geo. III. c. 14, aliens are enabled to lend money on the security of mortgages of estates in the West India colonies, and may have every remedy to recover the money lent, except foreclosing the mortgage and obtaining possession of the land.

A devise of lands to an alien is void; and if a man be bound to an alien enemy in a bond, it is void to him, but the king shall have it. Aliens, however, may obtain goods and personal estate by trade, &c. and may bring actions for the same; and make a will and dispose of their personal estate; but an alien enemy cannot maintain any action whatever, nor obtain any thing lawfully within the realm. 1 Bull. 124. Termes de Ley. 36.

Aliens are not to be returned on any jury; but where an alien is party in a cause, the jury are to be half denizens and half aliens, except in cases of high treason. 2 Inst. 17. By Stat. 27 Ed. III. c. 8, if both parties are aliens, the inquest shall be all aliens. By the Stat. 12 W. III. cap. 2, aliens are incapable of being members of parliament, or of enjoying offices; neither have they any vote for the election of members. Hob. 271. Aliens likewise are by several acts of parliament put under several other restrictions, with regard to exercising trades, taking apprentices, and are likewise disabled from being factors in the plantations, &c. See Denizen and Naturalization.

A very great influx of Frenchmen into England having been occasioned in the years 1792 and 1793, by the troubles in France, and there being cause to suspect that some of them were sent here for dangerous and unjustifiable purposes, an act was passed, Stat. 3 Geo. III. c. 4, commonly called the Alien-hill, compelling the masters of ships arriving from foreign parts, under certain penalties, to give an account at every port of the number and names of every foreigner on board to the custom-house officers; appointing justices and others to grant passports to such aliens; and giving the king power to remove and to send them out of the kingdom on pain of transportation, and on their return, of death. The same act also directs an account to be delivered of the arms of aliens, which, if required, are to be delivered up, and aliens were not to go from one place to another in the kingdom without passports. This act was continued by several subsequent acts; by 3 Geo. III. c. 50, to Apr. 1, 1800, and from thence to the end of the then next session of parliament, and by 41 Geo. III. c. 24, till six months after the conclusion of a general peace.

Aliens duty, an import laid on all goods imported into England, by aliens, or denizens, and even on certain goods imported by natural subjects, if they be brought on foreign bottoms, over and above what is paid for the same goods imported by British, and in British shipping. 12 Stat. Car. 11.

Aliens duty is otherwise called petty customs, and navigation duty. This was first granted in 31 Ed. I. Fifth, dried or salted, and cod-fish, or herring, not caught in British vessels, and cured by British, pay a double aliens duty.

Aliens duty outwards, is taken off by the following acts. 12 Car. II. cap. 4.—25 Car. II. cap. 6.—5 Ann. cap. 27.—6 Ann. cap. 10.—7 Ann. cap. 7.—9 Ann. cap. 6.—8 Geo. I. cap. 15.—11 Geo. I. cap. 59.

Seaswage, package, and ballage, payable to the city of London, are properly alien duties. On what footing aliens are permitted to import foreign commodities into Great Britain. See Duty.

Alien is sometimes used, in Middle Age Writers, for exempt. Du-Cange.

Alien-amy, or alien friend. See Alien.

Alien priories, a subordinate kind of monasteries in England, belonging to, and independent of, other monasteries in foreign countries. In the reign of Henry V. the alien priories, or abbeys for foreign monks were suppressed, and their lands given to the crown. Vide Dudg. Monall. Abr. p. 44.

ALIENATION, Alienatio, in Jure, the act of making a thing another man’s; or the altering or transferring the property, and possession of lands, tenements, or other things from one man to another. To alienate, or alien in Mortmain, is to make over lands or tenements to a religious community, or other body politic. To alienate in Fee, is to sell the fee-simple of any land, or other incorporeal right.

All persons who have a right to lands may generally alienate them to others; but some alienations are prohibited; such as alienations by tenant for life, &c. whereby they incur a forfeiture of their estate. 1 Inst. 118.

By the statute of Edward I. a bar was put to alienations by what we call entails, which is an expedient for procuring perpetuities in families; but counter-expedients were devised to defeat this intent, and a practice was introduced of cutting off entails by fines, and of barring remainders and reversion by recoveries.

Estates in tail, for life or years, where the whole interest is not parted with, may be made with condition not to alienate to others, for the preservation of the lands granted in the hands of the first grantor.

The statute for alienations in Henry the Seventh’s time, had a great effect on the constitution of this kingdom: as among other regulations of that reign, it tended to throw the balance of power more into the hands of the people. By the Stat. 12 Car. II. cap. 24, fines for alienations are taken away; except fines due by particular customs of manors.

Crown lands are only alienable under a faculty of perpetual redemption.

The council of Lateran, held in 1123, forbids any clerk to alienate his benefice, prebend, or the like. By the laws of the ancient Jews, lands could only be alienated.
allocated for the space of fifty years. At each return of
the jubilee, all returned again to the primitive owners, or
their descendants, to whom the lands were originally allotted,
at the first distribution of Canaan.

Alienatio a familiar. See Abduction.

Alienation offer, is an office to which all rights of co-
ventants and entry, upon which fines are levied, and reco-
verys unfurred, are carried, to have fines for alienation fac-
and paid thereon.

ALIEU, or Alinus, in Ancient Geography, islands
placed by Phiny in the Adult gulf, near Ethiopia.

ALITE, in Geography, a town of Italy, in the kingdom
of Naples, and country of Lavora; five miles north of
Capua. This town, placed by M. d'Avville to the south-
west of Bourbonian and north-west of Beneventum, was for-
merly a Roman colony, and possessed by the Samnites.

ALIFORMES, which, in Anatomy, are called from
also wings, and forms, shapes, resembling wings. See Pter-
ygodæus externus et internus.

ALIFORMES praecox, are processes of the sphenoid bone,
under which article they will be described.

ALI MUNDI, Ali de regno, are phrases which often
occur in our ancient records and historians. Their meaning
has mentioned much dispute. Dr. Brady will have them
to signify only tenants in capite; which Mr. Tyrrle ende-
avors to refute, and shew that they denote the whole
commons of the kingdom. Hist. of Eng. tom. i. Appen.

ALI beats, in Ancient Geography, a people who inhabited
the western part of Arabia Felix; among whom gold, it is
said, was so abundant, that it was held in lower estimation
than copper and iron, which were probably very scarce.

ALIMA, among Mineralists, a kind of sand found in
gold mines, out of which lead is extracted.

ALIMALA, in Ancient Geography, a country of Asia

ALIMEA, or Halmusias, a district of Attica, be-
longing to the Leontid tribe, situate near the Phalerum,
and in the vicinity of Athens. In this district was a temple
consecrated to Ceres Theosphoria, or the legislatrix, and
to Proserpine, according to Pausanias, in Attic. lib. i. c. 31.
p. 76.

ALIMENA, in Zoology, a species of Papilio Nym-
phasis, with dentated cornu-
bean fasciae, and seven white marginal points, found in South
America and India.

ALIMENT, Ali mentum, formed of ali, to nourish,
in a physical sense, is whatever may be dissolved and turned
into chyle, so as to be afterwards converted into blood, for
augmenting the body, or repairing its continual waste. The
subject of aliments has been very diffusely and compre-
hensively discussed by Dr. Cullen, in his Med. Med. vol. i.
p. 317-408. See Chylification, Digestion, Drink,
Food, and Nutrition.

Aliment of plants. See Plants.

Alimentary, Alimental, something that relates
to aliment, or food.

Alimentary duct, or canal, is a denomination that has
been given to the whole of these passages which the food
permanates from the mouth to the anus. It is divided into the
gland, which is subdivided into the pharynx and esophagus,
the stomach, and the intestines. For an account of its
constitution, the reader is referred to these divisions.

This duct is said to be the true characteristic of an animal,
or propria quarto modo; there being no animal without it,
and whatever has it, being properly enough ranged under

the class of animals. Plants receive their nourishment by
the numerous fibres of their roots, but have no common
receptacle for digesting the food received, or for carrying off
the increasers. But in all, even the lowest degree of animal
life, we may observe a torrithal and intestines, even where
we cannot perceive the least formation of any organs of the
feezes, unless that common one of feeding, as in oysters. Phil.

Dr. Wallis deduces an argument from the structure of
the alimentary tube in man, to prove that he is not naturally
carnivorous. "To the cogency of which, Dr. Tyron makes

Alimentary duæ, is sometimes also understood of the
thoracic duct.

Alimentary bros, lex alimentaria, was an old law among
the Romans, whereby children were obliged to find suste-
ance for their parents.

Alimentary boys, Alimentarii pari, s. e. were certain
children maintained and educated by the munificence of the
emperors, in a fort of public places, not unlike our hos-
pitals.

Trajan was the first that brought up any of these aliment-
ary boys. He was imitated by Adrian. Antoninus Pius
had the same for a number of maidens, at the solicitation of
Faulina; and hence, in some medals of that emperor, we
read PELLARAE PAESTINIANAE. Alexander Severus did the
like, at the request of Mammea: and the maids thus edu-
cated are called Mammezane.

Alimentation is used by some naturalists, for
what we more ordinarily call Nutrition.

Alimentus, Cincius, in Biography, a Roman his-
torir, was a prætor in the consulship of Claudius Marcellus
and Marcus Valerius, in the year 152. B. C. Livy repre-
sents him as a diligent collector of historical facts; and as
an eminent writer, giving him the appellation of "maximus
auctor." Livy, lib. vii. lib. xxx. He wrote the history of
Hannibal, in whose hands he was a prisoner; and the
history of Gogias of Leontium, probably from materials
which he collected during his prætorship in Sicily. He was
also the author of a treatise on the military art, mentioned
by Aulus Gallus, (lib. xxvi. c. 4.) and Ammianus, (lib. iii.)
mentions him in his account of the foreign divinities, called
Novatians.

Alimne, in Ancient Geography, a town of Asia, in
Phrygia, supposed to be the same with that called also
Aleen.

Alimony, Almosia, properly signifies nourish-
ment, or maintenance; but in a modern sense, in law,
it denotes that portion, or allowance, which a married
woman sues for, upon any occasional separation from her
husband, wherein she is not charged with elopement or
adultery.

This was anciently called rationabile effervens, reasonable
maintenance, and was recoverable only in the spiritual court;
but now it is recoverable also in chancery.

Where a woman is divorced a mensa & thoro, she may sue
her husband in her own name for alimony, or maintenance,
out of his husband's estate, during the separation, either in
the chancery, or in the spiritual court; and it will be allowed,
except in the cases of elopement and adultery, as aforesaid.

1 Inf. 235.

Alinos, in Botany, the name given by some of the
Greek writers to the common liquorice. It has been thus
called, from its quality of pulling the appetite, and making
it insipid either of hunger or thirst.

Alina, in Ancient Geography, one of the three small
islands
ALIPTA, from αλήπτα, I anoint, in the Ancient Gymnastics, an officer appointed to anoint the athletes.

In which sense the alipta amount to the fame with what are otherwise called undiores, and jaturapect.

ALIPTERIUM, or alipterion, in Antiquity, a place in the ancient polis, where the athletes were anointed before their exercises.

The alipterium, or alipterion, was otherwise called eliothesion, and arniciarium; sometimes also corona.

ALIPTES, the name of a fountain near Ephesus.

ALIQUANT part, in Arithmetic, is that which will not measure or divide any number exactly. Or an aliquant part is that which being taken any number of times, is always greater or less than the whole.

Thus five is an aliquant part of 12; for being taken twice, it fails short; and when taken three times, it exceeds 12.

The aliquant parts of a pound, or 20s. are,

3s. an aliquant part composed of a tenth and 20th.
6s. of a 5th and a 10th.
7s. of a 4th and a tenth.
8s. of two 5ths.
9s. of a 4th and a 5th.
11s. of a half and a 20th.
12s. of a half and a 10th.
13s. of a half, a 10th, and a 20th.
14s. of a half and a 5th.
15s. of a half and a 4th.
16s. of a half, a fifth, and a 10th.
17s. of a half, a 4th, and a 10th.
18s. of a half and two 5ths.
19s. of a half, a 4th, and a 5th. See Multiplication.

ALIQUOT part, is such part of any number or quantity, as will exactly measure it, without any remainder. Or, it is a part, which being taken a certain number of times, becomes equal to the whole, or integer.

The word is formed of aliquoties, any number of times. Thus 3 is an aliquot part of 12; because, being taken four times, it will fulfil measure it.

All the aliquot parts of any number may be thus found. Divide the given number by its least divisor, and divide the quotient also by its least divisor, and so on always dividing the least quotient by its last divisor, till the quotient is obtained; and all the divisors, thus taken, are the prime aliquot parts of the given number. Then multiply continually together these prime divisors, viz. every two, every three, every four of them, &c.; and the products will be the other or compound aliquot parts of the given number. E.G.

Let the aliquot parts of 60 be required; first divide it by 2, and
and the quotient is 30; then 30 divided by 2 gives the quotient 15; and 15 divided by 3 gives 5, and 5 divided by 5 gives 1, and therefore, all the prime divisors or aliquot parts are 1, 2, 3, 5, 7, 15, 30; then the compound one obtained by multiplying every two, three, four, six, ten, fifteen, and thirty; and by multiplying every three, six, ten, fifteen, twenty, thirty, and all the aliquot parts of 30 are 1, 2, 3, 5, 10, 15, 30; 2, 5, 10, 15; 3, 10, 15; 5, 15; 2, 5, 3; 6, 10, 15; 7, 10, 15; 10, 15, 30; all the aliquot parts of 30 are.

To multiply by the help of aliquot parts, see Multiplication.

We must not confound an aliquot part with that of a commensurable; for every aliquot part is commensurable, but not vice versa. Thus four is commensurable with six, but is not an aliquot part of it. Phil. Trans. No. 41.

ALISÆ, in Ancient Geography, a name given by Josephus to the inhabitants of Eboe.

ALISANDERS, in Botany. See SMYRNIUM.

ALISANUS. See Rheuma.

ALISARNA, or HAlIsARNA, in Ancient Geography, a city of the Troas, in Asia Minor.

ALISCA, a town of Lower Pannonia. In the Notitia Imperii, it is called Alfota, and placed in Valeria, near the Danube.

ALISDACCA, a town of Media, according to Ptolem. E.

ALIST, or ALISIA STE. REINE, in Geography, a town of France, in the department of the Cote d'Or, eight miles north of Saumur-en-Auxois. This town was the ancient Alesia. The celebrity of this place in the time of the Romans is discernible in the vestiges of the Roman ways, which lead to and from it. After the fall of the Western empire, Alife was the chief place of an extended country, called Pago-Alisienis or Alisienis, whence was formed the Fr. Allois and Ausoir. The ravages of the Normans occasioned the removal of the relics of St. Reine, the martyrs, to Flavigny in the year 864. After the ancient Alife was ruined, the name continued to be appropriated to some dwellings that remained on the declivity of the adjoining mountain. The site of the ancient city is now cultivated ground; "Nunc feget ubi Troja fuit." The commerce of this place confided of chaplets, shrines, flowers, &c., for the accommodation of the pilgrims, who reforted hither from all parts of France, to celebrate the feast of St. Reine, which was kept twice a year. The fountain of St. Reine is a reservoir of clear and fresh water, about two feet square; and its water was formerly held in high estimation. But the place has long since lost its reputation.

ALISINCUM, Anzi, a town of Gaul, belonging to the Edui, between Auguntodunum to the call, and Deceitia to the south-west.

ALISO, in Geography, a town of Corsica, in the district of Capo Corso.

ALISSUM, a town of Elis, situate on a high mountain, between Elis and Olympia; the Achian of Steph. Byz. It had a river of the same name, according to Strabo.

ALISUS, or ALEXUS, a mountain of Arcadia, separating it from the Argolid.

ALISMA, from Stor, anxiety, or rather from Stor, the sea, Water Plantain, in Botany, a genus of the helenium polygonia class and order, of the natural order of tripetaloses and juncæ of Jullius: its characters are, that the perianthium is three-leaved, leaflets ovate, concave and permanent; the corolla three-petalled, petals roundish, large, flat and very spreading; the stamens have awl-shaped filaments, shorter than the corolla, anthers roundish; the pfilum has germs more than five, fylæs simple, stigma obtuse, the pericarpium are compripted, (many and aggregate, Smith,) and the seeds solitary and small.

There are nine species, viz. 1. A. plantago, great or broad water plantain, or greater thunmwort, with leaves ovate, acute, capüles obtusely triangular. This species is easily known by its smooth entire leaves on very long petioles; and by its purplish flowers growing in a kind of umbel, at the end of a long scape. The flowers are fully expanded about four in the afternoon. It grows in watery places, on the banks of pools, lakes and rivers, is perennial, and flowers in July. This plant possessey the poisonous quality of the ramunculi, to which order it is naturally allied. Dr. Smith mentions two varieties, viz. A. lanceolata of Withering, or narrow water plantain, and plantago aquatica leptomera phyloides of Dim. in Ray Synop., or greater water plantain.

2. A. flavum, damalonium flavum of Miller, with leaves ovate, acute, peduncles umbellate, capüles globose. This grows in Jamaica, Barbadoes, and several other places in the warm parts of America, in stagnant waters and swampy places; but being of no great beauty, and not easily preferred in England, it is not worth cultivating. 3. A. damalonium, damalonium A. of Miller, scar-headed water plantain, with leaves cordate-oblong, flowers fix-pointed, capüles awl-shaped, the flowers are white; fylæs fix, and capüles fix, divaricated, with a stellated appearance, of a hard texture, and so closely united at the base, as to appear like a single fruit. Stokes. This is a native of France, Siberia and England; is found, more rarely than the former, in ditches and stagnant waters, about London in several places, on Hounsford Heath, Winkfield plain, near Windsor, &c.; is perennial, and flowers in June and July. 4. A. cordifolium, with leaves heart-shaped, obtuse, flowers twelve-flowered, capüles hook-pointed. This species connects the genus alisma with that of fagittaria; and is found in North and South America. 5. A. natans, creeping or floating water plantain, with leaves ovate or elliptic, obtuse, peduncles foliatory, and capüles fringed. The leaves which swim on the surface are ovate, and thence under water linear. It is found in ditches, in France, Sweden, Germany, and Siberia: in the lakes of Bala and Lornberis, in North Wales; is perennial, and flowers in July and Augulf. 6. A. ramunculoides, small water plantain, with leaves linear-lanceolate, capüles pentagonous, incurved, globose-aggregate. The corolla is bluish-white, and opens about noon. It is a native of Sweden, Holland, France, Germany, Italy, and England, in marshes and moors; is perennial, and flowers in Augulf. 7. A. fuligulium, with leaves awl-shaped; a Virginian plant, the dwarf fagittata of Clayton, with a very tender white corolla, and fruticose leaves. 8. A. paraflgulium, with leaves heart-shaped, acute, petioles jointed; a native of Italy, in the marshes under the Apennines. 9. A. repens, with stems creeping, leaves lanceolate, petiolated, acute, a native of Spain, on the sandy banks of the river Manzanares; flowering in Augulf, and seeming to be the fame, though much smaller, with the alisma, which Abbé Poiret found on the Northern coast of Africa, described by Lamarck. Willdenow adds a 10th species, A. fagittata, with leaves fagittated, and capüles obovate, obtuse; found in Guinea. Martyn. Miller. Smith's Flor. Brit. vol. i. p. 400.
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ALISO, ALSE, in Ancient Geography, a small river of Germany, mentioned by Dion Cassius. This was also the name of a castle built by Drusus in Germany for the convenience of the Sicambri.

ALISONTIA, ALSET, a river of Germany, which passing by Luxemburg, discharges itself into the Moselle.

ALISTA, a town placed by Ptolemy, in the southern part of the island of Cordica.

ALISTRES, a fort of Epirus, rebuilt by Justinian.

ALISUS, a town placed by Ptolemy in the northern part of Germany.

ALITAMBI, a people of Africa, placed by Ptolemy between Libya and mount Thala.

ALITES, formed from alta, a wing, in Antiquity, a name given to those birds which afforded auguries by their wings and flight. In this sense, a little land opposed to oscines, or birds, which gave auguries by their mouths, by singing, or croaking, &c. To the class of alites belong the buzzard, osprey, &c. To that of oscines, the crane, raven, owl, &c.

ALITROPES, in Ancient Geography, a town placed by Secaulx in a part of Greece, assigned by him to the Achaens, which was the district of Phthiotis, usually comprised in Thessaly.

ALJUBARROTA, in Geography. See Aljubarrot.

ALJUCEN, a small river of Spain, which runs into the Guadiana, not far from Montachet in Leon.

ALJUSTREL, a town of Portugal, in Alentejo, 16 miles W. S. W. of Beja, containing one parish, and about 1500 inhabitants.

ALIXEN, a town of France, in the department of Ardeche, two leagues E. N. E. of Valence.

ALKADARII, formed from the Arabic, alkaldar, which signifies decree, a feast among the Mahometans, who deny any eternal, fixed, divine decrees, and are affitters of free will. The Alkadarii are a branch of Moatazalites. They stand opposite to the Algibarri.

ALKENDA, in Botany, see Myrtus.

ALKHEST, or Alkahest, in Chemistry. This word, so famous in the last ages of alchemy, occurs, for the first time in the treatise of Paracelsus, De Viribus Membrorum, where it is mentioned as a sovereign remedy against dropsy and all diseases of the liver. Notwithstanding that its particular use is here expressly stated, without any hint of its other qualities, or the method of preparation; notwithstanding also that the term is not to be met with in any other of his writings, yet Van Helmont, giving his master credit for the knowledge of more mysteries than ever he himself has pretended to, has raised the alkalift from a mere medicine in the disorders of a particular organ to the lofty character of an universal solvent, and the most active of all the alchemical elements.

The origin of the word is variously derived from falkz-geif, spirit of a plant; al-geist, all spirit; i. e. a perfectly pure spirit; or al-geist, i. e. alkali el, according to a custom common with Paracelsus and other alchemists, of concealing the name of a substance by a denomination or transposition, of which a similar example occurs in the famous author of the word araph, for aroma-philosophorum.

The properties of the alkali, according to Van Helmont, are the following. It is a fluid of perfect simplicity and purity; it is never found native, but always prepared by art; it is capable of dissolving all substances into a liquor, which rises wholly in distillation, leaving no traces behind; at the same time that the alkali itself spontaneously separates from the body on which it has produced such a remarkable change. The substances thus acted upon retain, however, their essentinal properties, but by further digestion with the alkali, are all resolved to the fame indolent,センテル, stifid, elementary water. A murtuum of such surpising powers was immediately supposed to be of the utmost consequence in the higher alchemical procéesses; and the solemn affirmation of Helmont, that he was really in possession of such an agent, a quality credit even among many from whom a sober scepticism of such mysterious and unheard of qualities might have been expected. As Helmont never divulged the secret method of preparing the alkali, most of the succeeding alchemists of any eminence had each their particular theory on the subject; Beeker imagined it to be contained in sea salt; and Glauber, in his very ingenious tract, "De Mercurio Philosophorum," endeavours to prove it to be nitre; and indeed by taking the liberty, as this author does, of applying the nitre in solution or fusion, or separated into its acid and alkaline elements, there are few substances that are not capable of being thus brought into a fluid state.

In modern chemistry nothing is acknowledged as sure till it has the test of repeated and accurate experiment; and we now hear no more of the alkali than of the eur or metals, and the universal medicine. Boclaaave's Chemistry. Glauber, Opera, vol. i.

ALKHEST is also used in a more extensive sense, so as to comprehend all fixed salts volatilized, and reduced into a quinteence.

ALKHESTIC is used by some to denote the quality of bodies which are powerfully solvant.

In which sense, alkalific amounts to the same as the mendous; except that the former imports a greater degree of the solvative power than the latter. See Menstruum.

ALKEDAR, in Geography, a fortress of Asia, in the Arabian-lar, 106 miles west of Bagdad.

ALKALESCENT, denotes a substance slightly alkaline, or in which an alkali is beginning to be formed and to predominate. As the volatile alkali, or ammonia, is the only one which is usually observed to be produced by spontaneous change, the term alkalecent generally refers to the generation of this alkali, in certain vegetable and animal substances by the process of putrefaction or any similar decomposition. Some species of vegetables, especially the tetracyanhydrin plants, have received the name of alkalecent, because, when placed in circumstances favourable to fermentation, they have a peculiar tendency to form ammonia, which may be separated in a very sensible quantity, by the process of distillation.

ALKAL is the generic term for an order of arts of the highest importance, and the most familiar in chemistry.

Alkali is a word of Arabian origin, and it was employed by the Arabian chemists and physicians, to express the salt which was procured from the nates left after the combustion of several vegetables, particularly the salt kali of the desert, and several plants growing on the sea shore. The same salt is also found native in immense quantities, mixed with salt water, in the waters and on the shores of several lakes of Lower Egypt, and has been known, from time immemorial, by the name of natron, or the salt of the ancients. The Greeks and Romans were equally familiar with the alkaline salt contained in vegetable nates, which was termed putrefactive oil (xilinio oil, Plin.), whence the name of alkaline key, xilinum, or putrefactive oil, which is still retained. The use of the word alkali was at first confined to the salt which was yielded by the fixed or incombustible nates of vegetables; but the volatile salt, which rises in distillation of vegetable, and especially of animal matter, having been found to possess similar chemical properties with the fixed putrefactive salt, in the most essential
The properties common to all alkalies are the following: they have a highly acid taste, which acts with so much energy upon the tongue as to produce the sensation of burning, and unless they are much diluted, they very soon corrode the thin skin which covers it, and produce a small eczema or dead part, which, for a time, leaves a slight sore on that sensitive organ. They have an unctuous feel to the finger, not from any fluid nature in the alkaline, but because they directly diffuse the surface of the skin, and produce a kind of soap. They effect a remarkable change on several vegetable colours. The red of roses, and the blue of violets, are turned by them to a dull green; the red of archil or litmus, to a blue; the yellow of turmeric, the light brown of jalap root, liquoricise root, and of many other roots and woods, are all rendered much deeper in colour, approaching to a brick-red. They unite with sulphur, forming compounds which have the property of absorbing the oxygen from atmospheric air, and, when moistened, of giving out a peculiar fætid gas. These compounds have been denominated alkaline sulphate, or levers, and in the modern nomenclature, sulphates. They have a very powerful action on almost all vegetable and animal matters, producing speedy disorganization, and dissolving them into a thick pulp. With oils they form the well-known compound, soap. They are largely soluble in water, giving out heat on union with this liquid. They unite with every acid, and produce neutral salts of various degrees of solubility; in which, when the contents are mutually saturated, the distinguishing properties of both acid and alkali are neutralized, and no longer to be perceived. Owing to the very strong affinity which they bear for acids, they decompose the acid solutions of all metals and most earths. These are the most characteristic properties common to all alkalies; but there are others which are confined to one or other of the two species. These we shall enumerate, referring the reader for more particular information, to the individual articles.

The Volatile Alkali (Ammonia) is distinguished, (as its name implies) by its volatility. The pure form in which it is known to us is that of a gas, which is permanent at any degree of cold that has ever been applied to it, and unites readily with water in large quantity, from which, however, it may be again expelled by a heat much below boiling. It has never been procured in a solid form, unles combination with some other substance; nor as a liquid, except by its union with water. It differs remarkably from the fixed alkalies in having a very pungent smell, which highly stimulates the nostrils; and excites coughing and tears. Owing to the eafe with which it assumes a gaseous form, it is incapable of uniting with many substances which the fixed alkalies will diffuse, when allisted by fusion in a strong heat. The volatile alkali is weaker in all its affinities than the fixed. It is also the only one which is decidedly proved to be a compound substance; the nature of its conlunct parts (which are hydrogen and azote) having been ascertained by numerous experiments both of synthesis and analysis. See Ammonia.

The Fixed Alkalies. (Alkali fucrefamides, Laugefate, Geran-Alkali filio Ital.) are the proper fixivey alkalis, or those that are procured by lixiviation of the ashes of burnt vegetables. They may be obtained in a very pure solid form, either crySTALLized, or as a simple concrete. Besides the properties which have been mentioned as common to all alkalies, these posses considerable fixity in fire, and at a red heat they run into thin fusion. A higher heat, however, volatilizes them, and they fly off in fensible vapour. The fixed alkalies, when in fusion, will readily diffuse fliccous earth into the perfectly homogeneous transparent compound, glass. They also will diffuse by heat all the metallic oxides, and thereby receive various tints. They affit in the fusion of all earthly and metallic admixtures, and their degree of fixity in the fire enables them to combine more intimately than the volatile alkali, with sulphur, phosphorous and charcoal. When pure and solid, they are remarkably deliquecent, absorbing water from every surrounding medium; and hence they have been used by chemists to render the air of any vessel in which they are confined, perfectly dry. The fixed alkalies are two in number, Potash and Soda, the former being procured from the ashes of all vegetables except marine plants, and a few that grow near the sea shore, which yield the latter alkali. The former is also termed the vegetable alkali, and the latter, (owing to its being sometimes found native in the earth) is called the mineral alkali. The general properties of these two alkalies were long known, and they were long employed in various arts, before the circumstances by which they are disttinguished were well ascertained, and their separate existence established. The close resemblance which they bear to each other when pure, and the similarity in all their most remarkable chemical properties, prevented a proper distinction between them; and it was chiefly by the researches of Pott, Duhamel and Margraff, that the nature of the two alkalies was fully explained. The two neutral salts with which the older chemists were the most familiar, nitre and sea-falt, have for their bases, the former the vegetable, and the latter the mineral alkali; and it was principally by enquiries into the properties and decomposition of these neutral salts that the distinct nature of their alkaline bases was decided.

Potash and soda differ from each other in the strength of their affinity with acids, which is greater in the former; in some slight variation in their action on oils and animal fats; but chiefly in the neutral fals which they form with the acids, which in all cases differ in form of crystallization, in solubility, often in taste, and in several other particulars.

The intimate nature of the fixed alkalies is still unknown to us. From the very strong analogy with the volatile alkali, the component parts of which are fully established, it must be considered as highly probable that the fixed alkalies are compounds, though their decomposition has not yet been effected by any experiments which can be allowed to be unexceptionable. Fixed alkalies have been supposed to be generated by the process of combustion of vegetables; since no plants, even those whose ashes yield the molt of this falt, contain before combustion any fensible quantity of uncombined alkali. The accurate analyses of several of the modern chemists have however detected, in the native juices of plants, several neutral salts, whose alkaline bases are united to an acid which is easily destructible by fire. But for this, and other speculations on the nature of the fixed alkalies, we shall refer the reader to the article Potash.

Alka (Gauft or Pure). The alkaline salt procured from vegetable ashes, besides being mixed with other salts, and with earth, is always saturatated more or less completely with fixed air, or carbonic acid; so that the fixed alkali which was the subject of the experiments of all the chemists, till within a few years, was a salt compounded of carbonic acid and the alkaline bases. The beautiful experiments of Dr. Black fully illustrated this point, and shewed, that the reason of the greatly increased cauficity of alkalies, when mixed with quick-lime, was the loss of the carbonic acid, which had paffed from the alkali to the earth. Gauftic alkalies, therefor,
fore, are alkalies deprived of carbonic acid by quick-lime or any other method; and this is the only state in which, properly speaking, alkalies can be considered as pure; though even when they contain much of this volatile acid, the peculiar qualities of the alkaline part predominate so considerably as to enable them to exhibit (though in a weaker degree) all the chemical properties by which alkalies are characterized.

Alkali (Efferent or Mild), is opposed to the state of causticity, and expresses that degree of faturation with carbonic acid, which, as has just been mentioned, diminishes, but does not supprest, the characteristic properties of the alkali. Owing to the alkali obtained from vegetable ashes being always left after combustion in union with carbonic acid, efference with acids was considered by the older chemists as an essential character of alkalies in general, who thus ascribed to a property inherent in this genus of salts, an appearance which is now known to depend upon the expulsion of the gaseous acid. The terms caustic or pure, and efferent or mild, are applied to the volatile as well as to the fixed alkalies.

Alkali (Extemporaneous), is a mild vegetable alkali, prepared by deflagrating nitre with tartar. See Carbonate of Potash.

Alkali (Flour), is a solution of pure Ammonia in water.

Alkali (Philogistic), is prepared by calcining carbonated potash with bullock's blood or other animal matter, in which process it unites with the Prussic acid, formed during the calcination.

Alkali (of Tartar), or Salt of Tartar, is properly a mild vegetable fixed alkali, prepared by the combustion of tartar, which yields it in great purity. The name is used more extensively for any pure carbonated potash, and it is the term by which this salt is more generally known in common language and in medicine.

Alkaline Earths. It is by no means easy to draw the line accurately between alkalies and earths. The original idea of an earth, entertained by the ancient chemists, was that of a substance of considerable density, insoluble in water, without taste, smell, or any perceptible action on the organs of sense, entirely unfusable, and fixed in the most intense fire; and, in short, with properties as opposite as possible to those of a salt. This opinion principally attached to earth, considered as one of the four elements of which the material world was suppos'd to be constituted. The progress of chemical investigation having, however, discovered several species of earths, which could not by any means be proved to be compounds, in which the simple or universal earth was so disfigured as to lose some of its essential characters, it became necessary to alter and modify the original definition of an earth, and to allow to it more of a saline nature.

Some of the modern chemists, therefore, have adopted the term falsifiable, and others alkaline earths, in order to allow of more accuracy in systematical arrangement. By alkaline earth has been meant an earth which agrees with alkali in the property of solubility in water to a certain extent, and thereby rendering it rapid, of changing to green certain blue and red vegetable colours; of absorbing carbonic acid with eagerness, and of polishing, when pure, those caustic or acid qualities that so much distinguish the alkalies. Magnesia, lime, barytes and fironian, are the earths which may be termed alkaline, but the former is very imperfectly so, being scarcely more soluble in water than file; and though its habits with carbonic acid are partly similar to those of the alkalies, it does not acquire any taste, or any degree of causticity, by the loss of this gaseous acid. Barytes and fironian, on the other hand, approach nearer to an alkaline nature than lime, in being very largely soluble in water, and readily crystallizable from its solution in a determinate form. They have therefore been actually enumerated as alkalies by Fournier, who reckons the following; potash, soda, ammonia, barytes, and fironian. The two latter even stand before the three ancient alkalies in their order of affinity with molyblic acids, but, till the intimate nature of the fixed alkalies be fully cleared up, it will perhaps be proper to restrict the term alkali to the three above-mentioned, and to retain in the class of alkaline earths magnesia, lime, barytes, and fironian, all of which, however, they may be alkalies in many respects, differ from them in being unfusable for in very intense fire, and being entirely incapable of being volatilized by the utmost heat that has ever been applied to them.

Alkali, in Botany. See Salicornia.

Alkaline, in a general sense, something that has the properties of an Alkali.

In this sense we say, alkaline fea, alkaline limes, alkaline spirits, alkaline substances, &c.

Alkaline salts, considered in their reference to the Materia Medica, are known to possess antifeptic powers. Experiments upon them, out of the body, sufficiently indicate and attest these powers; but Dr. Cullen observes, that it is at the same time equally well known, that they are constantly induced with such an influence, that they cannot by themselves be introduced into the body without acting more by their stimulant than by their antiseptic powers. The volatile alkali may sometimes be an useful remedy in putrid fevers; but it cannot, as some have imagined, be given more freely on account of its antiseptic powers, as it can never be given copiously enough to have any effect on these qualities. The volatile alkaline salts shew their stimulant power in every dose, wherever the energy of the brain is weakened, and consequently the action of the heart is languid, or requires to be accelerated. In such cases this stimulus is among the safest, as it is always transient; and when their acrimony can be covered, so as to pass the mouth and fauces without irritation there, they may be given in large doses from 10 to 20 grains. These are prepared in two different ways; one of which is from solid ammoniac, which gives the ammoniac of the London Dispensatory, or the sal ammoniacus volatilis, and spiritus falis ammoniaci of the Edinburgh. These are the purest forms of the volatile alkali, the most free from any adhering animal substances; but whilst the process of preparing a volatile alkali from the bones or other solid parts of animals continues, there will come into the shops a salt and spirit that can hardly ever be so pure, from some impure animal substance adhering to it; and such an adherent may probably give some peculiar quality to the salt and spirit, and render it more antispasmodic. It cannot be very considerable in any doses of the salt or spirits given to adults, but it may produce more sensible effect in the spasmodic affections of infants. The liquid volatile alkali is commonly employed in its mild state; but by a distillation of the sal ammoniac with quick-lime, the alkali may be obtained in its caustic state. In this state it may be readily joined with spirit of wine, and gives the spiritus falis ammoniaci of the Edinburgh Dispen- satory, or the spiritus falis ammoniaci vinosus of that of London. The combination affords an excellent menstruum for dissolving the several fetid substances employed as antispasmodics, and renders them more suddenly diffusible, and perhaps gives them a greater effect in all spasmodic affections. The caustic volatile alkali is seldom administered alone; but if its acrimony be covered while it passeth the mouth and fauces, it may be very safely employed. Its chief use is external, and when smelled at the nose, it gives a more powerful stimulus than the mild alkali can do. Its acrimony is so considerable, that when applied to the skin, it readily
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readily irritates, and even inflames it, and may be so managed, as to prove an useful stimulant and rubefacient in many cases. But this requires its being blended with a mild, expressed oil, so as to prevent its inflaming too much. See Volatile Oil. The fixed alkaline salts have been commonly administered as diuretics. Dr. Cullen has chiefly employed the vegetable fixed alkali, and has sometimes obtained its effects in a remarkable degree; but he has been often disappointed, which he ascribes to the neutralization of the alkali in the stomach, and in that state they could have no other effect than other neutrals, which is commonly inconsiderable, either as laxatives or diuretics. Alkalies do, however, occasionally manifest their diuretic power; and upon the supposition of their neutral state in the stomach, their considerable operation as diuretics cannot be fairly accounted for. Of this fact Dr. Cullen offers two explanations. One is, that the quantity of alkali thrown into the stomach may be more than the acid can there neutralize, and therefore some portion of it may reach the kidneys in its alkaline state, and prove a more powerful stimulant than any neutral salt would be; and on this ground a large quantity of alkali is always necessary to produce diuretic effects. Another explanation of the fact is as follows. As the acid of the stomach may be presumed to be of the nature of the fermented acid of vegetables, so an alkali joined with it must form a regenerated tartar, a foul diureticus, or kali acetatum; and if this be less purgative, and more diuretic than other neutrals, while it is also conveyed to the blood-vessels in larger quantity, we can understand why, from these circumstances, the fixed alkali may often appear diuretic. With respect to its operation as a diuretic, another conjecture may be offered. When it is given with bitters, after the manner of Sir John Pringle, it commonly proves diuretic; and Dr. Cullen imagined, that as the bitters are absorbents of acid, they might absorb so much of that present in the stomach, as to prevent its being fully applied to the alkali. As alkalies may be often prevented, by purging, from reaching the kidneys, their diuretic effect may be often more certainly secured by giving an opiate at the same time; and for the utility of this practice, see Dr. Mead on the subject of Dropy. Besides the laxative and diuretic powers of the fixed alkali, another is ascribed to it, which is that of dissolving the fluids, or the concretions which may happen to be formed in them, expressed by French writers under the denomination of fondant. Dr. Cullen does not allow it to puffles this power to any great degree, or to produce the effects in this way that have been ascribed to it. Cullen's Mat. Med. vol. i. p. 568. Vol. ii. p. 382. 512.

Alkaline acrimony, in Medicine, signifies a morbid quality in the blood, which is induced by a desire of and thirst after four things; lofs of appetite, and aversion to alkalifeant food, numerous eruptions, putrid ulcers on the lips, tongue, and other parts in the mouth, thicknes in the stomach, a frequent diarrhoea, a fever of heat, latitude, and general uneafines, a dilatation of the texture of the blood, the urine highcoloured and red. It produces a putrefidency in the blood, &c. and is to be remedied by the fame means as the fea- farmy and other putrid disorders.

ALKALIZATION. Alkalization, in Chemistry, the art of impregnating a liquor with an alkaline salt. This is done either to make it a better difsolvent, for some particular purposes; or to load the phlegm, so as it may not rise in distillation, whereby the spiritual parts may go over more pure.

Alkalization is a name applied to operations, by which alkaline properties are communicated to bodies; or to those by which alkali is extracted from bodies which contain it, or in which it may be formed; e.g., spirit of wine is said to be alkalized, when it has been digested upon alkali; a part of which it dissolves, and thence acquires alkaline properties. On the other hand, when a neutral salt is decomposed, in order to obtain its alkaline basis, this salt is to be alkalized. Vegetable substances when reduced to alkali, may also be said to be alkalized, because the alkali contains fixed alkali.

ALKAMARE, in Geography, a town of Persia, in the province of Irak-Agemi, 28 leagues east of Bagdad.

ALKANET, in Botany. See Anchusa.

ALKANSAS, or ARKANSAS, an Indian nation of Louisiana, on the west side of the Mississippi river, near the river of the same name, in N. lat. 34°. See Arkansas river.

ALKENNA. See Alkanna and Lawsonia.

ALKEKENG, in Botany. See Akephalus and Physalis.

Alkenengi, a medicinal fruit or berry, produced by the Physalis. Alkenengi, popularly also called winter-cherry; formerly used and much commended as an astringent, diuretic, and diuretic.

These berries were well known to the ancients, and are charateristically described by Dioscorides, under the denomination EKANNA. ALKENNA. They have an acidulous and not unpleasant taste, followed by a slight bitterness, which they are said to induce in a confiderable degree from the infefting calyx, if not gathered with great care. Although these berries are esteemed to be detergent and aperient, they have been chiefly recommended as a diuretic, operating without heat or irritation, in suppressions of urine, and for removing obstructions occasioned by gravel or mucus. With this intention the number of 6 to 12 cherries in subfance, or an ounce of the expressed juice has been the usual dose; but there seems to be no danger from a much larger quantity; for, we are told, that in some parts of Germany the country people eat them by handfuls with much benefit; and in Spain and Switzerland they often supply the place of other eatable fruits. Ray informs us, that a gouty person prevented the returns of the disorder by taking eight of these cherries at each change of the moon; and infames are recorded of their good effects in dropical and calculous complaints, but at present they are wholly disregarded.

The cherries may be dried so as to be pulverable, or the depreated juice infipidized with a gentle heat to the conference of a rob or extract, which Dioscorides commends, and in this state preferred for use. They have been sometimes mixed with opium. Dr. Cullen (Mat. Med. vol. ii. p. 553,) observes, that as it is allowed the berries take a taint from the leaves, it will always require some caution in employing any part of a plant which is taken from an order of a very poisonous kind. Lewis, Mat. Med. Woodville, Med. Bot. vol. iv. p. 34. Murray's Mat. Med. vol. i. p. 679.

ALKENDI, or ALKINDI, JACOB BEN ISAAC, in Biography, a celebrated Arabian philosopher and writer, was the son of the prefect of Cufa, under Muhammed Modi and Raffid, and flourished in the caliphate of Al-Mamon, or at the beginning of the ninth century. He acquired such eminence in literature and philosophy in the school of Bafioha, that he was called, by way of distinction, "The Philosopher." Although he yielded implicit obedience, in common with his contemporaries, to the authority of Aristote, and principally devoted himself to the office of interpreting and illustrating his writings, he directed his attention to other more important and useful studies. His name is mentioned among the mathematicians and astronomers of his age; and his medical writings, that are still extant, prove that he attained a very honourable rank among the Arabic physicians. Herbelot represents Alkindi as a Jew, who was persecuted on account of his religion; but the account of
his genealogy in the manuscript History of Philosophers, referred to by Dr. Ruffell, contradicts this statement; for his father's great grandfather is said to have been one of the companions of the prophet. This manuscript contains a catalogue of his writings; but the medical tract usually ascribed to him, and translated into Latin, under the title of "De Medicinarum Compositarum gradibus inveniendi," is not included. Abulfaragius mentions an anecdote concerning him, which furnishes a very amiable trait of the moderation and liberality of his temper towards a malicious adversary. While he was visiting the schools of Bagdad, to which the learned and fluentus usually resorted in his days, he gave great offence by promoting the study of philosophy, and endeavouring to reconcile the doctrines of Islamism with the principles of reason, to one Alhumafar, one of the interpreters of the Koran, who was alarmed at receiving knowledge that should undermine vulgar superstitions. Accordingly this zealot accused him of heresy and impiety. Alkendi, instead of fining this conduct, and countering, by his interest with the caliph, the design which Alhumafar had formed against his life, endeavored to subdue his adversary by leasons and admonitions of philosophy. Fully apprized of the influence of wisdom as a means of mellowing the disposition, he engaged a preceptor to instruct his adversary in mathematics and philosophy. Alhumafar was thus led to perceive the folly and baseness of his past conduct, and to offer himself as a pupil to the philosopher whom he had persecuted. Alkendi received him with confecension and kindness, and Alhumafar became an ornament to his school. Drucker's Hill. Phil. by Enfield, vol. ii. p. 237. Ruffell's Aleppo, vol. ii. Appendix, p. 9.

ALKERMES, in Medicine, &c. a term borrowed from the Arabs, denoting a celebrated remedy, of the form and consistence of a confection, whereas the kermes are the basis.

The other ingredients are rose-water, sugar, ambergris, musk, cinnamon, aloes wood, pearls, and leaf gold, &c. but the sweets are usually omitted.

The confecion alkermes was chiefly made at Montpelier, which place supplies most of Europe with it. It is said to be better made there than it can be elsewhere; the reason of which doubtless is, that the drug, which gives it the denomination, is no where found so plentifully as there. The manner of preparing the grain for making the confection is described in the Phil. Trans. N° 20.

It has been much used as a cordial; especially, says Dr. Quincy, among female preferibers, and in complaisance to them; but that author decries its value in that intention, and thinks it ought only to be regarded as a sweetener.

Count Marigli, in an inquiry into the composition of this medicine, shews, that many of the ingredients with which the ancients so plentifully loaded it, and which are still retained in it by the moderns, are not only useless, but hurtful; more particularly the lapix lavali, by many mistakenely held cordial, on account of the appearance of veins of gold in it; whereas, in reality, it is only a marlact of sulphur and vitriol, and contains a great quantity of acid, directly repugnant to the alkaline nature of the kermes, and highly prejudicial in diseases where the blood tends to coagulation.

ALKES, in Astronomy, a star in the constellation Crater.

ALKETH, in Geography, one of the Puloon islands, in the North Pacific Ocean.

ALKMAAR. See ALCMAAR.

ALKMAAR, Henry of, in Biography, a native of Alkmaar in Holland, and the reputed author of the celebrated fable of "Reynard the Fox;" a poem written in Low Dutch in the 15th century, which, under the allegory of a Society of Animals, satirizes the different vices of mankind. This poem has been very popular, and translated into all the languages of Europe. A German edition of it, by Gottfried, is adorned with figures, and enriched with learned dissertations. It now appears that this poem was actually written by Nicholas Baunmann, an Earl-Frieslander, and that he assumed the name of Henry Von Alkmaar, in order to secure himself from the inquiries of the ducal court of Juliers. Baunmann was a member of the council of duke Magnus of Juliers, who died in 1503; but being driven from court by means of a cabal, he composed this allegorical poem, for the purpose of satirizing his enemies, and painting the intrigues carried on there. Nouv. Dict. Hist.

ALKMAR, in Geography, a small island near that of Java, within sight of Batavia.

ALKOHOL. See ALCOHOL.

ALKORAN. See ALCORAN.

ALKUSSA, in Ichthyology, a name given by the Swedes to a fish, which they also called lake. It is a species of the Silurus, and is distinguished by Artedi by the name of the silurus, with only one cirrus, or beard, under the chin. The common silurus, which is the glama of the ancients, has four cirri.

ALKY of lead, among Alchemists, denotes a sweet substance procured from lead.

ALL in the Wind, a sea-phrase, which expresses the state of a ship's sails when they are parallel to the direction of the wind, so as to shake or shiver.

ALL Hands boy! the call by which the ship's company are summoned upon deck.

ALL Saints, in the Calendar, denotes a festival celebrated on the first of November, in commemeration of all the saints in general, which is otherwise called All-souls.

The number of saints being so excessively multiplied, it was found too burthensome to dedicate a feast-day to each. In reality there were not days enough, scarce hours enough, in the year for this purpose. Hence an expedient was had recourse to, by commemorating such in combination who had no peculiar days of their own. Boniface IV. in the ninth century, introduced the feast of All Saints into Italy, which was soon after adopted into the other churches.

ALL Saints, in Geography, islands near Guadaloupe island, in the West Indies.

ALL Saints, a parish in the diocess of George-town, South Carolina, containing 2225 inhabitants, of whom 429 are whites, and 1795 blacks. It sends a member to each house of the state-legislature.

ALL Saint's Bay, a spacious harbour near St. Salvador in Brazil, in South America, on the Atlantic Ocean. S. lat. 13° 5'. W. long. 38° 45'. This bay is 24 leagues wide, is interposed with a number of small but pleasant islands, and is of great benefit to the whole country. This is also the name of a Captainship in the middle division of Brazil, so called from the bay; bounded north by the Rio real, on the south by that of Los Ilheos, on the east by the ocean, and on the west by three unconquered nations of Indians. It is reckoned one of the richest and most fertile Captainships in Brazil, producing great quantities of cotton and sugar. It has several cities and towns, particularly St. Salvador, which is its capital.

ALL Stigita, in Italian Music, is said of discord, which we call passing notes, that appear in the melody, but are unnoticed in the harmony. These discord, Alla Stigita, require no preparation or resolution like notes in ligature.

ALL Souls, in the Calendar, denotes a feast-day held on the
the second of November, in commemoration of all the faithful deceased.

The feast of All Souls was first introduced in the 11th century, by Odilo, abbot of Cluny, who enjoined it on his own order; but it was not long before it became adopted by the neighbouring churches. Others say that it was established A.D. 998. See Juxtin’s Rem., on Eccle. Hist., vol. v. p. 11. p. 34.

ALLA, in Geography, a small town of Italy, in the valley of Trent, upon a small river which falls into the Adige. N. lat. 45° 43’; E. long. 13° 42’.

ALLA, or ALLA, a river of Poland, in Ducal Prussia, which runs into the Pregel, about five leagues above Königsberg.

ALLA, It. ALLA, i.e. all, joined to, or rather following, a sublimative, has the force of the word Rule in English; as alla Francesca, like the French, or in the French style or manner; alla Venetiana, in the Venetian manner. Thus, in music, alla breve implies a quick time, though the notes look slow, as when breves are played or sung like or as quick as semibreves, semiquavers like minim; and minims like crotchets. This measure is seldom found in secular music composed by authors subsequent to Corelli, Geminiani, and Handel. A bar in alla breve time contains two semibreves, performed as quick as minim; and as few black notes appear in such movements, which are generally fugato, or in fugue; musicians, in sport, term them white fugues. Alla Secco, in the Scots style; alla Polacca, Polish; alla zoppa, limping, as in movements full of binding or driving notes or ligatures; all’ottava, in the octave; all’ottava più alta, an octave higher; più basso, lower. In passages for the additional keys to pianofortes, all’uso implies that all the notes from this indication, included under the line drawn over them, till the words in loco (the usual pitch) occur, are to be played an octave higher. This precludes the trouble and fatigue to the eye of the glee singers, as ascending to C in allá diffusum would require five additional lines and spaces to be piled on the usual staff of five lines. Choral music is paid to all’ Palatinus, when the style of composition resembles that of this venerable father of ecclesiastical music.

ALLABA, or ALLAYA, in Ancient Geography, a town of Sicily, on the southern side of it, near the mouth of a river of the same name, and not far from Heraclea Minoa.

ALLAH, or ALL, an Arabic word, and the name which all who profess Mahometanin give to God, and make frequent repetitions of in their prayers.

ALLAHABAD, in Geography, a founth or province of Hindoostan, about 160 miles in length and 120 in breadth, bounded on the east by the province of Bahar, on the north by Oude, on the south by Bher, and on the west by Malwa and Agra. It contains, according to the division of Akbar, recorded in the Ajuen-Akbery, 10 circums or counties, divided into 177 pargannahs, or hundreds. Its revenue, according to the statement of Maurice, in his Indian Antiquities, is 3,310,695 lacs rupees. It furnishes 11,375 cavalry, 237,870 infantry, and 323 elephants. The greater part of it is in the possession of Azubah Dowlah, a tributary ally of the British power. The principal cities are Allahabad, Benares, and Iconpore.

Allahabad, a city of Hindoostan, situate at the confluence of the two great rivers Jumna and Ganges. It is composed of two towns—the old, which is near the Ganges, and the new, about a mile long and a half a mile wide, near the Jumna. It was called Allahabad by the emperor Akbar, who erected a strong fortres of stone in it, which occupies a large space of ground, and of which we have an elegant delineation by Mr. Hodges, in No. IV. of his Select Views in India. The tomb of Sultan Khufur is also an excellent specimen of Mahometan architecture; and a pillar 40 feet high, of one stone, covered with illegible inscriptions, is ascribed to tradition to Bima, one of the heroes of the Mahabarat. Allahabad is a feat of devotion so noted that it is denominated "the king of worshipped places." We also learn from the Ayeen-Akbery, that the territory round it, to the extent of 40 miles, is deemed holy ground. The Hindoos believe, that when a man dies in this place, whatever he wishes for he will obtain in his next regeneration. Although they teach that suicide in general will be punished with torments hereafter, yet they consider it as meritorious for a man to kill himself at Allahabad. There are various objects of veneration in and about this city, which are full visited with great devotion by an immense number of pilgrims. Dr. Robertson is of opinion, that the ancient Pahibothea is the modern city of Allahabad; but major Kennell has placed Palibothea on the same site with Patna. Robertson’s India, p. 39. p. 356. N. lat. 25° 27’; E. long. 82° 5’.

Allaknándara, a river of Tibet, which runs into the Ganges, about 20 miles south of Sinagur.

ALLAM, Andrew, in Biography, a writer of the 17th century, was born of mean parentage at Garfingdon near Oxford, in 1655; and after previous education at a private grammar school, was entered at St. Edmund’s Hall Oxford, in 1671: where he became tutor, moderator, lecturer in the chapel, and at length vice-principal. In 1680, he took orders, and in 1683 was made one of the masters of the schools. He died of the small-pox in 1685. He wrote epitaphs prefixed to the publications of other writers and additions to a book, entitled, “Anglice notitia,” and to “Helveticus Historical and Chronological Theatre;” and he also translated the “Life of Iphicrates,” laid the foundation of a “Notitia Ecclesiæ Anglicanae,” which was left unfinished, and asfifted Mr. Anthony Wood in compiling the “Athenæ Oxoniænsæ,” by whom he is mentioned with great commendation and respect. Biog. Brit.

Allamannda, so called from Mr. F. Allamand, a Dutch surgeon, who visited Guiana about 1769, and Rufia about 1776, and sent descriptions, figures, and specimens of plants to Linnaeus, in Botany, a genus of the pantanaria monogyna: chaf and order of the natural order of comorts, and apoënae of jussieu; the characters of which are, that the calyx is a perianthium one-leafed, five-parted, parts ovate and acute; the corolla one-petalled, funnel-shaped, tube cylinic, border semiquinquefoil, swelling, divisions spreading, obtuse; the flaminia, with scarcely any filaments, authors five, lagittate, converging, in the throat of the tube; the pistillum has a germ oval, surrounnded with a ring, stylo form, of the length of the tube, flima headed, contracted in the middle; pericarpium, an orbicular, lens-shaped, echi- nate, one-celled, two-valved capule; the seeds very many, imbricate, orbiculate, flat, edged with a membranous wing. There is one species, viz. A. cathartica, galariis of Allamand, orchia grandiflora of Aublet, a milky shrub, with firm twining and climbing on trees, which grows wild at Cayenne, in Guiana, &c, by the sea-side. The leaves are cathartick, and an infusion of them is used at Surinam, in the colic: introduced in 1785 by Baron Hake. Martyn.

Allamp, in Geography, a town of France, in the department of the Meurthe, and district of Toul, three leagues south of Toul.

Allan, a river of Scotland, which runs into the Firth of Forth near Stirling. Allan Water is also a river of the same country, which runs into the Tweed, about a mile north-west of Melros.

Allanche, a town of France, in the department of Cantal,
Cantal, and district of Murat, situate in a valley, and having a considerable commerce of cattle; four leagues and a half north north-west of St. Flour. N. lat. 45° 12'. E. long. 2° 54'.

ALLANTOIS, ALLANTOIDS, called also Farcinimalis, in Comparative Anatomy, is a thin transparent sac or bag, found amongst the membranes, involving the fetus of quadrupeds; it is connected with the urinary bladder of the young animal, by means of the urachus, and is supposed to serve the purpose of a reservoir for the urine.

Allpigili, Haller, and others have attributed this membrane to the chick during the period of incubation.

The word is derived from μαλαιξε, farciinem, a gut; and μαιξ, forma, shape; because, in many brutes, it has somewhat the appearance of an inflated intumescence.—For a further account, see Mammalia, in Comparative Anatomy.

ALLARD, Guy, in Biography, was born at Dauphine, about the middle of the 17th century, and acquired reputation by several works relating to the history of that province. His "Nobilissima du Dauphine avec les Armories," 12mo. Grenoble, 1714, and "Histoire des Maîtres Dauphinois," are his principal and most esteemed works.

ALLAT, in Mythology, derived from Alla, God, is the name of an idol among the Arabic and idolatrous Jews.

ALLATA, a town of Dalmatia, in the itinerary of Antonin.

ALLATIUS, or Allacci, Leo, in Biography, a voluminous writer of the 15th century, was born in the island of Chios, and at the age of nine years, after having been educated in the Greek church, removed to Calabria, where he enjoyed the patronage of the noble family of Spinaeli, and embraced the Catholic religion. At Rome he was admitted into the Greek college, where he acquired reputation by the study of polite learning, philosophy, and divinity. From Rome he went to Naples, and was made great vicar to the bishop of Anglina; and having settled for some time in his native country, he returned again to Rome, studied physics, and took his degree of doctor in that science. But the belles lettres being out of fashion in Italy, and his principal attention; and, instead of pursuing the practice of physics, he taught the Greek language in the college of his own nation. About the year 1622 he was employed by Gregory XV. in removing to Rome the library of Heidelberg, which the elector of Bavaria had presented to this pontiff; he was afterwards librarian to Cardinal Barberini; and at length pope Alexander VII. appointed him librarian of the Vatican. His publications, which consisted of editions of old MSS, translations from Greek authors, and original compositions, are very numerous. Some of the principal of the latter class are the following: "De Ecclesiæ Occidentalis et Orientalis perpetua confensione," 4to. Cologne 1648; "On purgatory," 8vo. Rome, 1655; "De patria Homeri," 8vo. Lyons, 1640; "De Septem orbis Speculaealis," 8vo. Rome, 1640; "Confutatio Fabule de Joanna papissa;" "De Pelleiis;" "De Georgiis;" "De Simeonibus." His retentive memory and application qualified him for compiling catalogues; accordingly he published a work of this kind under the title, "Apes Urbanus," in allusion to the bees borne in the arms of pope Urban VIII., which contained a history of the learned men of Rome for the years 1630, 1631, and 1632, with a catalogue of their works: and another tract of a similar kind, entitled, "Dramaturgia," giving an account of dramatic authors and their works, printed at Rome in 1635, and reprinted at Venice in 1755. Allatius also wrote several Greek poems, one upon the birth of Lewis XIV. in which he introduced Grecian speaking. Allatius was a diligent and rapid writer; and he is said to have written Greek 40 years with the same pen, the loft of which he lamented with tears. His erudition and industry are more commended than his judgment; and he is generally reproached for want of liberality and candour. His criticisms were harsh and ill-natured; his reflections on those who differed from him were coarse and vulgar, as well as severe; and his animosity and intolerance, in his conduct towards those who were not comprehended within the pale of the Romish church, to which he was a profiteer, and for which he was an ardent advocate, were such as led him to denounce against them the most cruel penalties. The Roman pontiff, as he maintained, was independent; judged the world without being accountable to any; his unjust commands were to be obeyed; and he had an absolute authority as legislator and judge, and was incapable of illusion and error. As for heretics and schismatics Allatius was of opinion, that they should be proscribed and exterminated; and if they perished in their heresy, put to death and consumed in the flames. In his zeal for uniting the Greek church to the Latin, and with this view for inimitating himself into the favour and confidence of pope Urban VIII., he is charged by F. Simon with insincerity and misrepresentation. The gentlemen of Port Royal have attempted a vindication of Allatius, particularly against the attacks of Mr. Claude.

Allatius was neither married nor took orders; and in accounting for this part of his indecisive conduct, when he was asked by pope Alexander VII. "why do you not enter into orders?" he replied, "Because I would be free to marry." "Why then," said the pope, "do you not marry?" "Because," replied Allatius again, "I would be at liberty to take orders." He died at Rome in the year 1669, at the age of 83 years.

ALLAY. See Alley.

ALLAZONIUM, in Ancient Geography, a town of Aisa in Myria, north part of Scipio.

ALLBURG, in Geography, a township of America, in Franklin county, Vermont, situate on Miliifique Bay, and containing 446 inhabitants.

ALLCHURCH, a village of Warwickshire, said to have been formerly seven miles in circumference, and having the Roman Icknield street passing through it. It was once a borough, with a market and several streets. The bishop of Worchester had a palace in it, and the church, parts of which are of Saxon architecture, contains many ancient monuments. It is situate five miles from Bromsgrove, in the road to Leicesters.

ALLECTUS, in Ancient Biography and History, the confidential friend and prime minister of Carausius, emperor of Britain, apprehending punishment for several crimes with which he was chargeable, murdered his master, A.D. 294, and usurped the imperial dignity, which he maintained for three years. During this period Conostantius was preparing for the recovery of Britain; and at length the principal squadron, destined for this enterprise, and assembled in the mouth of the Seine, was intrusted to the command of the prefect Asclepiodotus. The weather proved favourable, and under the cover of a thick fog, the invaders escaped the
the fleet of Alleclus, which had been stationed off the Isle of Wight to receive them, landed in safety on the western coast; and convinced the Britons, says Gibbon, "that a superiority of naval strength will not always protect their country from a foreign invasion. As soon as the troops were landed, the intrepid commander set fire to the ships, and marched forward to meet the enemy. The usurper had posted himself near London in expectation of an attack from Conflantius, who commanded the fleet of Boulogne; but upon hearing of the defeat of Alepiedotus, he made forced marches to oppose his progress. With a small body of harried and disheartened followers, Alleclus encountered the Imperial troops, and the engagement soon terminated in his complete defeat and death; so that a single battle decided the fate of this great island. When Conflantius landed on the shores of Kent, he was welcomed by the lord and unanimous acclamations of obedient subjechts; and Britain, after a separation of 10 years, was thus reëstablished, A. D. 297, to the body of the Roman empire. Crevier's Rom. Emp. vol. ii. p. 411. Gibbon's Hist. vol. ii. p. 127.

ALLEGHANY, or Alleghany County, in Geography, a district of Pennsylvania in America, extends from the junction of the river of that name with the Ohio, where its chief town Pittsburg is situated, to the New York line. It contains 10,309 inhabitants, including 159 slaves. More. Alleghany is also the most western county in Maryland, and has Pennsylvania on the north. The windings of the Potowmac river separate it from Virginia on the south, and Sideling-hill Creek divides it from Washington county on the east. It contains 4,009 inhabitants, including 258 slaves. Its chief town is Cumberland. More. Alleghany Mountains of America, situate between the Atlantic Ocean, the Mississippi river, and the lakes, are a long and broad range of mountains, formed of a great number of ridges, extending to the north-east and south-west, and nearly parallel to the sea-coast, about 900 miles in length, and 60 to 150 and 200 miles in breadth. The different ridges, which compose this immense range of mountains, bear appropriate names in the several states: viz. the Blue Ridge, the North Mountain or North Ridge, or Devil's Back-bone, Laurel Ridge, Jackon's Mountains, and Kittatiny Mountains. All these ridges, except the Alleghany, are broken through by rivers, which appear to have forced their way through solid rocks; and between the several ridges numerous tracts of fine arable and grazing land intervene. In those districts, however, which lie in the back parts of Pennsylvania, Mr. Evans, who travelled over them, observes, that scarcely one acre in 10 is capable of culture. The principal ridge is more appropriately called Alleghany, and distinguished by the appellation of the Back-bone of the United States. From the several ridges proceed innumerable branches or spurs. The general name of the whole range, taken collectively, seems not yet to have been determined. Mr. Evans calls them "the endless mountains;" others have called them "the Apalachian mountains," from a tribe of Indians, who live on a river which proceeds from this mountain, called the Apalachinola; but the most common name is the "Alleghany mountains" so called, probably from the principal ridge of the range. These mountains are not confinedly scattered, rising here and there in high peaks, overtopping each other; but they run along in uniform ridges, scarcely half a mile high. They spread towards the south, and some of them terminate in high perpendicular bluffs; others gradually subside into a level country, giving rise to the rivers which run to the southward into the Gulf of Mexico. More.

ALLEGANY RIVER, an American river of Pennsylvania, rises on the western side of the Alleghany mountains, and after running about 200 miles in a south-east direction, unites with Monongahela at Pittsburg; and both together form the Ohio. The lands on each side of this river, for 150 miles above Pittsburg, consist of white oak and chestnut ridges, and in many places of poor pitch pines, intermixed with tracts of good land and low meadows. This river, and the Ohio likewise, from its head waters until it enters Mississippi, are known and called by the name of Alleghany river, by the Senea and other tribes of the Six nations, who once inhabited it. Morfe.

ALLEGATA, in Antiquity, a word anciently subscribed at the bottom of receipts and constitutions of the emperors, as ignata, or isleta, was under other inscriptions. In this sense allegata imports as much as verified, viscripta. Allegata was a kind of subscription, somewhat less usual than data, propositum, accepta, subscripita, sucripta, or subscripta.

ALLEGATION, is used for the producing of acts or instruments, to authorize a thing. In the ecclesiastical courts, articles are drawn out in a formal allegation, or by libel, to set forth the complainant's ground of complaint against the injuring party, brought before the court by citation. To this succeeds the defendant's answer upon oath, when, if he denies or extenuates the charge, they proceed to proofs by witnesses examined, and their depositions taken down in writing, by an officer of the court. If the defendant has any circumstances to offer in his defence, he must also propound them in what is called his defensive allegation, to which he is entitled, in his turn, to the plaintiff's answer upon oath, and may from thence proceed to proofs as well as his antagonist.

Allegation, in a literary sense, denotes the act of citing or quoting an author, or passage of some book.

ALLEGEAS, or Allegias, in Commerce, a stuff manufactured in the East Indies. There are two sorts of them; some are of cotton, and others of several kinds of herbs, which are spun like flax and hemp. Their length and breadth are of eight ells, by five, six, or seven-eighths; and of twelve ells by three fourths, or five-eighths.

ALLEGIANCE, in Law, the legal faith and obedience, which every subject owes to his prince: or, it is the tie or ligament, which binds the subject to the king; in return for that protection which the king affords the subject.

This was anciently called ligantia, or liganz; from the Latin ligans, and allegans, to bind; q. d. ligamentum.
tenant or vassal. But when the acknowledgment was made to the inferior lord himself, who was vassal to no man, it was no longer called the oath of fealty, but the oath of allegiance; and therein the tenant swore to bear faith to his sovereign lord, in opposition to all men, without any saving or exception; “contra omnes homines fideltatem feclit.”

Land held by this exalted species of fealty was called “Feudum ligium,” a large fee, the vassals “homines ligii,” or liege men; and the sovereign their “dominium ligii,” or liege lord.

And when sovereign princes did homage to each other for lands held under their respective sovereignties, a distinction was always made between simple homage, which was only an acknowledgment of tenure, and liege homage, which included the fealty before mentioned, and the services consequent upon it. Thus, when Edward III., in 1329, did homage to Philip VI. of France, for his ducal dominons on that continent, it was warmly disputed of what species the homage was to be, whether liege or simple homage.

But with us in England, it becoming a settled principle of tenure, that all lands in the kingdom are holden of the king as their sovereign or lord paramount, no oath but that of fealty could be taken to inferior lords, and the oath of allegiance was necessarily confined to the person of the king alone. By an easy analogy the term of allegiance was soon brought to signify all other engagements, which are due from subjects to their prince, as well as those duties which were simple and merely territorial. And the oath of allegiance, as administered for upwards of 600 years, contained a promise “to be true and faithful to the king and his heirs, and truth and faith to bear of life and limb,” and “terreine honour, and not to know or hear of any ill or dammage intended him, without defending him therefrom.”

At the revolution, the terms of this oath being thought to favour too much the notion of non-rebellion, the present form was introduced by the convention parliament, which is more general and indeterminate than the former; the subject only promising “that he will be faithful and bear true allegiance to the king,” without mentioning “his heirs,” or specifying in theleast wherein that allegiance consists. Accordingly, the convention of estates having offered the crown to the prince and princes of Orange, who accepted it, the old oaths of allegiance imposed by the flat, 1 Eliz. and 3 James I. were abrogated; and a new oath was drawn up to be taken by all the subjects of England, on penalty of being deprived of all employments, civil, military, and ecclesiastical. The form of the oath of allegiance by 1 Geo. flat. ii. c. 12, is “I, A. B. do freely, truly and solemnly promise and swear, that I will be faithful, and bear true allegiance to his majesty George. So help me God.” This oath may be tendered to all persons above the age of 12 years, whether natives, denizens, or aliens, either in the court-leet of the manor, or in the sheriff’s tourn, which is the court-leet of the county. See Prætories.

The Quakers are exempted from taking the oath of allegiance; and, in lieu thereof, are only enjoined a declaration of fidelity, 8 Geo. c. vi. The oath of allegiance, taken by the people to the king, is only the counterpart to the coronation oath, taken by the king to the people; and, as such, partakes of the nature of a covenant; that is, is conditional, and ceases on a violation of the contract by the prince; at least this is the doctrine of none of the chief advocates for the revolution. The anti-revolutioners, on the contrary, held the oath of allegiance to be absolute and unconditional. Archdeacon Paley, in his illustration of this oath, observes, that it excludes all intention to support the claims or pretensions of any other person or persons to the crown and government, than the reigning sovereign; and also all design, at the time, of attempting to deprive the reigning prince, for any reason whatever; and that it forbids the taking up of arms against the reigning prince, with views of private advancement, or from motives of personal resentment or dislike. On the other hand, this oath permits allegiance to the king, when his ill-behaviour or incapacity is such, as to make allegiance beneficial to the community; nor does it require obedience to such commands of the king as are unauthorized by the law, or that we should continue our allegiance to the king, after he is actually and absolutely deposed, driven into exile, carried away captive, or otherwise rendered incapable of exercising the regal office, whether by his fault or without it.

Besides this express engagement, the law also holds, that there is an implied, original and virtual allegiance, owing from every subject to his sovereign, antecedently to any express promise; and although the subject never swore any faith or allegiance in form. For as the king, by the very descent of the crown, is fully invested with all the right, and bound to all the duties of sovereignty, before his coronation; so the subject is bound to his prince by an intrinsic allegiance, before the superinduction of those outward bonds of oath, homage, and service, which were only instituted to remind the subject of his previous duty, and for the better securing its performance. The formal profession, therefore, or oath of subjection, is nothing more than a declaration in words of what was before implied in law.

Allegiance, both express and implied, is however distinguished by the law into natural and local; the former being also perpetual, and the latter temporary. Natural allegiance is such as is due from all men born within the king’s dominions immediately upon their birth; for immediately upon their birth, they are under the king’s protection; at a time too, when (during their infancy) they are incapable of protecting themselves. Natural allegiance, therefore, is a debt of gratitude, which cannot be forfeited, cancelled or altered, by any change of time, place or circumstance, nor by any thing but the united concurrence of the legislature. An Englishman who removes to France, or to China, owes the same allegiance to the king of England there as at home, and 20 years hence as well as now. For it is a principle of universal law, that the natural born subject of one prince cannot by any act of his own, no, not by swearing allegiance to another, put off or discharge his natural allegiance to the former; for this natural allegiance was intrinsic and primitive, and antecedent to the other, and cannot be divested without the concurrent act of that prince to whom it was first due.

Local allegiance is such as is due from an alien, or stranger born, for so long time as he continues within the king’s dominion and protection; and it ceases the instant such stranger transfers himself from this kingdom to another. Natural allegiance is, therefore, perpetual, and local, temporary only; and that for this reason, evidently founded upon the nature of government, that allegiance is a debt due from the subject, upon an implied contract with the prince, that so long as the one affords protection, so long the other will demand himself faithfully. As therefore the prince is always under a constant tie to protect his natural born subjects at all times, and in all countries, for this reason their allegiance due to him is equally universal and permanent. But, on the other hand, as the prince affords his protection to an alien, only during his residence in this realm, the allegiance of an alien is confined, in point of time, to the duration of such residence; and, in point of locality, to the dominions of the Britis empire. Blackstone’s Com. book i. ch. 15. vol. i. p. 368—371. 8vo. Paley’s Principles of Moral and Political Philosophy, book iii. ch. 18. vol. i. p. 203—207. 8vo.
ALLEGI, ALLEGORIE, in Biography, an Italian engraver, who flourished in 1746, and published the following plates, viz. a Virgin Mary, the Circumcision, the Stoning of St. Stephen, a small print of Rinaldo and Armida, and a large Architectural Opera scene. Strutt.

ALLEGORICAL, something containing an allegory.

The divines find divers ftemples in scripture; as a literal, a mystical, and an allegorical sense. See Prophecy, and Types.

ALLEGORY, Allegoria, a figure in Rhetoric, whereby we make use of terms which, in their proper significations, mean something else than what they are brought to denote; or it is a figure whereby we pay one thing, expecting it shall be understood of another, to which it alludes; or which, under the literal sense of the words, conceals a foreign or distant meaning.

An allegory is, properly, a continued metaphor, or a series of several metaphors in one or more sentences. Such is that beautiful allegory, in Horace, lib. i. Od. 14.

"O navis, referunt in mare te novi
Pleutus, &c."

Where the ship is usually held to stand for the republic, waves, for civil war; port, for peace and concord; ears, for soldiers; and mariners for magistrates. Thus also, in Prior's Henry and Emma, Emma describes her confiance to Henry in the following allegorical manner:

"Did I but purpose to embark with thee
On the smooth surface of a summer's sea,
While gentle zephyr play with prosperous gales,
And fortune's favour fills the dwelling seas;

But would forfake the ship, and make the shore,
When the winds whistle, and the tempeants roar?"

Cicero likewise speaking of himself (in Pison. c. 9. tom. vi. p. 187.), uses this allegorical language: "Nor was I so timorous, that after I had leisureed the ship of the state through the greatest storms and waves, and brought her safe into port, I should fear the cloud of your forehead, or your colleague's petulant breath. I saw other winds, I perceived other storms, I did not withdraw from other impending tempests; but I exposed myself singly to them for the common safety." Here the state is compared to a ship, and all the things that are paid of it under that image, are expressed in metaphors made use of to denote the dangers with which it had been threatened. We have also a very fine example of an allegory in the 86th Psalm; in which the people of Israel are represented under the image of a vine, and the figure is supported throughout with great correctness and beauty. Whereas, if instead of describing the vine as walled by the boil from the wood, and devoted by the wild beasts of the field, the Psaltist had said, it was afflicted by heatises or overcome by enemies, which is the real meaning, the figurative and the literal meaning would have been blended, and the allegory ruined. The learned Bishop Lowth (De Sacra Poëth Hebraeorum, Pral. 10. 11. p. 120—140.) has specified three forms of allegory that occur in sacred poetry. The 1st is that which rhetoricians call a continued metaphor. When several metaphors succeed each other, says Cicero (Orator. c. 27. tom. i. p. 520.) they alter the form of the composition; and this succession has very properly, in reference to the etymology of the word, been denominated by the Greeks αλλαγης, an allegory; although Aritotole, instead of considering it a new species of figure, has referred it to the class of metaphors. The principle of allegory in this sense of the term, and of the simple metaphor, is the same; nor is it an easy matter to restrict each to its proper limit, and to mark the precise termination of the one, and the commencement of the other. For examples of this kind, we refer to Metaphor. This eminently judicious critic observes, that when the Hebrew poets use the congeal figures of metaphor, allegory, and comparison, particularly in the prophetic poetry, they adopt a peculiar mode of doing it, and seldom dilate the imagery which they introduce by any fixed principle or standard. Not satisfied with a simple metaphor, they often run it into an allegory, or blend with it a direct comparison. The allegory sometimes follows, and sometimes precedes the simile: to this is added a frequent change of imagery, as well as of person and tenes; and thus are displayed an energy and boldness, both of expression and meaning, which are unconfined by any fixed rules, and which mark the discriminating genius of the Hebrew poetry. Thus, in Gen. xlii. 9. "Judah is a lion's whelp," this metaphor is immediately drawn out into an allegory, with a change of person: "From the prey, my son, thou art gone up," that is, to the mountains, which is understood; and in the succeeding sentences the person is again changed, the image is gradually advanced, and the metaphor is joined with a comparison that is repeated.

"He roopeneth down, he couceth as a lion:
And as a lioness; whom shall he ouceh him?"

A similar influence occurs in the prophecy, recorded in Psalm cx. 3, which explicitly foretells the abundant increase of the gospel on its first promulgation. This kind of allegory, however, sometimes assumes a more regular and perfect form, and then occupies the whole subject and compass of the discourse. An example of this kind occurs in Solomon's well-known allegory, Eccles. xii. 2—6, in which old age is so admirably depicted. There is also in Isaiah, xxvii. 24—29, an allegory, which, with no less elegance of imagery, is more simple and regular, as well as more just and complete, both in the form and the method of treating it. Another kind of allegory is that, which in the proper and more restricted sense, may be called a parable; and consists of a continued narration of some fictitious event, accompanied by way of similitude to the illustration of some important truth. The Greeks call these allegories μεταγορα, and apologues, and the Latinς fabula, or fables. See Parable. The third species of allegory, which often occurs in the prophetic poetry, is that in which a double meaning is couched under the same words, or when the same discourse, differently interpreted, designates different events, dissimilar in their nature and remote as to time. These different relations are denominated the literal and mythical senses. This kind of allegory, which the learned prelate calls mythical, seems to derive its origin from the principles of the Jewish religion; and it differs from the two former species in a variety of respects. In these allegories the writer may adopt any imagery that is most suitable to his fancy or inclination; but the only proper materials for this allegory must be supplied from the sacred rites of the Hebrews themselves, and it can only be introduced in relation to such things as are immediately connected with the Jewish religion, or their immediate opposites.

The former kinds partake of the common privileges of poetry; but the mythical allegory has its foundation in the nature of the Jewish economy, and is adapted solely to the poetry of the Hebrews. Besides, in the other forms of allegory, the exterior or ostensible imagery is mere fiction, and the truth lies altogether in the interior or remote sense; but in this allegory each idea is equally agreeable to truth. The exterior or ostensible image is itself a reality; and although it sustains another character, it does not wholly lay aside its own. There is also a great variety in the use and conduct of the mythical allegory; in the modes in which the corresponding images are arranged, and in which they are obscurred.
feared or eclipsed by one another. Sometimes the obvious or literal sense is so prominent and conspicuous, both in the words and significations, that the remote or figurative sense is scarcely permitted to glimmer through it. On the other hand, the figurative sense is more frequently found to beam forth with so much peripatetic and rhetorical, that the literal sense is quite cast into a shade, or becomes insensible. Sometimes the principal or figurative idea is exhibited to the attentive eye with a constant and equal light; and sometimes it unexpectedly glares upon us, and breaks forth with sudden and astonishing corruptions, like a flash of lightning bursting from the clouds. But the more or less of this figure, which poises the chief beauty and elegance, is, when the two images, equally conspicuous, run, as it were, parallel through the whole poem, mutually illustrating and correspondent to each other. The learned author has illustrated these observations by instances Telccted from the 2d and 72d Psalms. He adds, that the mystical allegory is, on account of the obscurity resulting from the nature of the figure, and the style of the composition, so agreeable to the nature of the prophecy, that it is the form which it generally, and indeed lawfully affumns, as best adapted to the prediction of future events. It describes events in a manner exactly conformable to the intention of prophecy; that is, in a dark, disguised and intricate manner, sketching out in a general way their form and outline, and seldom defending to a minutest description and exactness of detail. On this subject in its immediate connection with the double sense of prophecy, which some eminent critics and commentators have not only disputed, but absolutely rejected as groundless and fanciful, and leading to great uncertainty of interpretation; see PROPHECY.

Allegories were a favourite method of delivering instructions in ancient times; for what we call fables or parables, are no other than allegories; where, by words and actions attributed to beasts or inanimate objects, the dispositions of men are figured; and what we call the moral, is the unfigured sense or meaning of the allegory. An enigma or riddle is also a species of allegory; one thing represented or imagined by another; but purposely wrapped up under so many circumstances as to be rendered obscure. Where a riddle is not intended, it is always a fault in allegory to be too dark. The meaning should be easily seen through the figure employed to shadow it. However, the proper mixture of light and shade, in such compositions, the exact adjustment of all the figurative circumstances with the literal sense, so as neither to lay the meaning too bare and open, nor to cover and wrap it up too much, has ever been found an affair of great nicety; and there are few species of composition in which it is more difficult to write, so as to please and command attention than in allegories. In some of the visions of the Spectator, we have examples of allegories very happily executed. In the right management of allegories, care should be taken that the same kind of trope be carried through the whole, so as to compose one uniform and consistent line of ideas; otherwise they dress up a chimera, a thing that has no existence, and of which the mind can form no conception. Quintilian very justly observes (Inf. Orat. 1. viii. c. 6,) that "to begin with a tempest and end with a fire, would be very ridiculous and unnatural." It is likewise very necessary that the allusions be all plain and evident, especially where the name of the thing alluded to is not expressed. These are called pure allegories. But where the reference is not evident, it becomes a riddle, which is nothing else but an obscure allegory. To avoid this the best writers use what are generally called mixed allegories, or such as express the proper name of the thing which the whole similitude respects. Of this kind is that in the speech of Philip, king of Macedon, given by Julian (l. xxvii. c. 3.), where he says, "I perceive that cloud of a dreadful and bloody war arising in Italy, and a thunder-storm from the west, which will fill all places with a large flower of blood, wherever the tempest of victory shall carry it." The proper words "war," "blood," and "victory," being joined to the tropes "cloud," "flower," and "tempest," in this sentence, render the several parts of the similitude plain and evident. Quintilian thinks these allegories most beautiful, where the whole similitude is expressed, and those words, which in their proper sense relate to one of the two things, between which the comparison is made, are allegorically applied to the other: as when Cornelius Nepos says of Atticus (cap. x.), "If that pilot gains the greatest reputation, who prefers his ship in a boisterous and rocky sea, ought not he to be thought a man of singular prudence, who, arrived in safety through so many and so great civil tempests?" These are the allegories with which orators are chiefly concerned. See Ward's Oratory, vol. ii. p. 27—31. Blairs Lectures, vol. i. p. 396—399.

The Old Testament is supposed, by many, to be a perpetual allegory, or typical representation of the mysteries of the New. Mr. Collins, in his "Grounds and Reasons of the Christian Religion," pretends, that the Old Testament, literally understood, no where serves the purposes of Christianity; but if it be of any use, it must be understood allegorically. He first recommends allegory, as the only mode of reasoning proper for bringing men to the faith of Christ; and then ridicules this allegorical interpretation as absurd. p. 87, 90, 94, 160. In effect, allegories have entered into most religions. The Jews, we know, abound with them. Philo Judaeus has three books, of the allegories in the history of the fix days. Nor are the heathens without allegories in their religion: it may be even said, that the use of them is of a much earlier standing in the Gentile than in the Jewish world. Some of their philosophers, undertaking to give a rationale of their faith, and to shew the reason and scope of their fables, and the ancient histories of their gods, found it necessary to put another construction on them, and maintain, that they signified something very different from what they seemed to express. And hence came the word allegory, or a discourse that, in its natural sense, significeth something other than what fæces intended by it. This shift they had recourse to, in order to prevent people from being shocked with those absurdities which the poets had introduced into their religion; and to convince the world, that the gods of Greece had not been those vile persons which their histories represented them to be. By this means the history, as well as religion, of Greece, was at once converted into allegory; and the world left to seek for them both in a heap of fables, few of which have been satisfactorily solved, either by ancient or modern writers. The Jews, finding the advantages of this way of explaining religion, made use of it to interpret the fabled writings, so as to render them more palatable to the Pagans. The same method was adopted by the primitive writers of Christianity. The practice of allegorical interpretation, which the Jews had learned from the Egyptians, and which, before the time of Christ, was common among them, the early converts to Christianity brought out of the Jewish into the Christian church. Some traces of this method we find in the New Testament, particularly in St. Paul's argument against the Jewish advocates for the perpetual and universal obligation of the Mosaic ritual, drawn from the history of Abraham, in the epistle to the Galatians, ch. iv. 22; and in the typical application
application of the ceremonial appointment of Moses to the Christian intimation, in the epistle to the Hebrews. But a rks sober and judicious use was made of this kind of lan-
guage by the Christian fathers. This was more especially,
the case with those Gentile converts who had been educated
in the Alexandrian school, where, by the help of allegory,
the several systems of philosophy were mixed and confounded;
and with those Jewish Christians, who, by the same
means, had been instructed in the Cabalistic doctrines,
which, before this time, had sprung up in Egypt, and passed
thereinto in Judæa. Several of those sects of Christians,
who were called heretics, particularly the Valentinian Grift-
tics, made use of allegorical language, to disguise the unna-
tural alliance which they had introduced between the fanciful
degrees of the oriental philosophy and the simple doctrine
of Christ. The orthodox fathers of the church, too, de-
defended themselves with the same armour, both against heretics
and infidels, applying, with more ingenuity than judgment, the
symbolical method of interpretation to the sacred scriptures.
In the same manner in which Philo and other Alexandrian
Jews had corrupted the Jewish church, Clemens Alexan-
drinus, Origen, and other disciples of the Alexandrian
school, in the second century, introduced error and corruption
into the church of Christ. Whitty on the interpretation of
Scripture, Lond. 1744. Brucker's Hist. Philos. by

Allegories are distinguished into divers kinds, as verbal,
real, simple, allusive, physical, moral, political, theological, &c.
Allegory, simple, according to some writers, is that
which is taken from any kind of natural things.
Allegory, allusive, is that which relates to other words,
or things.
Allegory, verbal, is a thread, or series of metaphors;
or a continuation of the same trope, chiefly metaphor,
through many words. Such is that in Virgil:

"Claudite jam rivos puri, fat prata bibrurent."

Where the metaphor of watering the ground is carried on
to the fluntings of the slaves, &c.

Allegory, perpetual, or continued, is that where the al-
legorical thread is pursued through all the parts of a con-
 siderable discourse. Such are the books of Jonah, of Can-
ticles, of Job, not to say the whole Old Testament, accor-
ding to the hypotheses of divineines.

Allegories, physical, those wherein some point of na-
tural philosophy is represented: such in Homer, are Juno,
who represents the air; Jupiter, the ether, &c.

Allegories, medical, those wherein some secret of phyt-
ology is revealed: such is Solomon's description of old age, Eccle-
sev. xx. 1, &c, wherein, according to certain authors, the cir-
culation of the blood is indicated: such also, according to a
modern writer, is the story of the labours of Hercules.
For an illustration of Solomon's allegorical description of
old age, see Mead's Medica Sacra, chap. vi.

Allegories, chemical, those relating to chemistry: such,
according to Snider, and many moderns, is the story of the
Argonautic expedition, wherein the process of making gold
is exactly described: such also, according to Tellus, is the
name and title of Baal, Valentine, Benedictine, Monk: under
which are concealed the secrets of the philosophical mercury.

Allegories, moral, those whereby some useful moral
instruction is held forth: such, in Homer, is the victory of
Diomedes over Venus, or sufficiently: such also are the Py-
thagorean metempsychyphics, and the story of the judgment
of Hercules, related by Proclus. To which may be added,
the fables of avarice and luxury; of the grutes of grief, and
and others in the Spectators and Tatlers. Spectat. N° 55.
Trot. N° 97.

Allegories, poetical, those wherein some maxim of good
government is artistically wrapped up: such is that celebrated
one of Menonius Agrippa, whereby he prevailed on the Roman
people, who had withdrawn in discontent at the magistrates,
to return into the city: to which purpose he related them
the parable of a wear raked by the several parts of the human
body against the Roman.

Allegories, theological, those wherein some truth relat-
ing to the nature and attributes of God is copered.

Allegory is also used for the drawing of some words,
plainly and literally intended at first, from their natural and
proper meaning, to a foreign sense; for the better instructing
of our minds in some point of faith or manners. This co-
incides with what is otherwise called accommodation.

Allegory, in Painting, is used as in poetry, and
sometimes too licentiously, by painters, who, while they
enrich their pictures by allegories, offend the spectator,
especially in representations of modern history. Rubens,
his works are full of great and noble ideas, cannot be
justified in the licentious treatment of allegory in his famous
pictures representing the history of Marcus of Medecis, and
in several of others of that great master's works, which
could be mentioned. In the Luxembourg gallery Rubens has so
united the Christian ceremonies with heathen mythology as
greatly to offend the eye of the intelligent spectator, not-
withstanding the grandeur of the composition and richness
of the colouring, which are produced by this very means.
A great general has been represented crossing a river with
his troops; an armed warrior trudging over a stream of wa-
ter flowing from an urn held by a river god; which would,
it is apprehended, have been expressed with greater propriety
by the general holding his truncheon, while those troops, at
a distance, were represented as fording a river. Allegory
seems better employed in poetical subjects than in historical
representations. See more upon this subject under the
article Painting.

ALLEGRI, GREGORIO, in Biography, an eminent mu-
atical composer of the 17th century, was a native of Rome,
and by profession an ecclesiastic. He was a disciple of
Nei
who was contemporary with Palestrina, and his in-
imate friend. His abilities as a singer were incomparable,
and yet he was accounted an admirable master of harmony;
and to much was he esteemed by all the musical professors
of his time, that the pope, in order to appropriate him to his
service, appointed him to be one of the singers of his chas-
pel in 1629. To his extraordinary merit as a composer of
church music he joined a devout and benevolent disposition,
and an excellent moral character; for he not only afflict
the poor, by whom his door was usually crowded, to the
utmost of his power, but daily visited the prisons of Rome,
in order to bestow his alms on the maimed and dis-
tressed objects he could find in them. He set many parts of
the church service with such divine simplicity and purity of
harmony, that the lads of him was much felt and sincerely
lamented by the whole college of singers in the papal ser-
vice. He died Feb. 18th, 1652; and was buried in the
Chiesa Nuova, before the chapel of S. Filippo Neri, near
the altar of annunciation, where is a vault for the reception
of deceased singers belonging to the pope's church.

Among his works preferred, that are still in use, is the
famous Missa, which, for upwards of 150 years, has
been annually performed at the pope's church in Rome on
Wednesday and Good Friday in Passion week, and which in
appearance is so simple as to make those who have only seen it
on paper wonder whence its beauty and effect could arise, and
which owes its reputation more to the manner in which it is
performed than to the composition: the same music is many
times repeated to different words, and the fingers have, by
tradition, certain custom, expressions, and grace of con-
vention (certe espressioni e gruppi), which produce great ef-
sacts, such as swelling and diminishing the sounds altogether,
accelerating or retardating the measure at some particular
words, and singing some entire verses quicker than others.
This information was furnished to the author by signor SAN-
tarelli, the pope's maestro di capella. And Andrea Adami
affirms, in his Observazioni sopra le opere di Cl. Pont. 
1711, p. 56, "that after several vain attempts by preceding
composers, for more than a hundred years, to set the fame
words to the satisfaction of the heads of the church, Greg-
gorio Allegri succeeded so well as to merit eternal praise;
for with few notes, well modulated and well understood, he
composed such a Miserere as will continue to be sung on the
same day, every year, for ages yet to come; and one that
is conceived in such just proportions as will sustain future
times, and ravish, as at present, the soul of every hearer.

However, some of the great effects produced by this
piece may, perhaps, be justly attributed to the time, place,
and solemnity of the ceremonials used during the perform-
ance: the pope and conclaves are all prostrated on the
ground; the candles of the chapel and the torches of the
balustrade are extinguished one by one; and the last verse of
this plain is terminated by two choirs; the maestro di capella
beating time flower and flower, and the fingers dimin-
ishing or rather extinguishing the harmony, by little and
little, to a perfect point.

It is likewise performed by select voices, who have fre-
quent rehearsals, particularly on the Monday in Passion
week, which is wholly spent in repeating and polishing the
performance.

This composition used to be held so sacred, that it was
imagined excommunication would be the consequence of an
attempt to transcribe it.

Padri Martini said that there were never more than three
copies of it made by authority, "one of which was for the
emperor Leopold, one for the late king of Portugal, and the
other for himself." Of this last he favoured the author with
a transcript at Bologna, and signor Santarelli indulged him
with another from the archives of the pope's chapel. Upon
collating these two copies, they were found to differ very little
from each other.—Purcell, date of Music in France and Italy.

Before we quit a subject so interesting to the lovers of
church music, we shall add the following anecdote, with
which we were likewise favoured by signor Santarelli.

"The emperor Leopold, the first, not only a lover and pa-
tron of music, but a good composer himself, ordered his
ambassador at Rome to entreat the pope to permit him to
have a copy of the celebrated Miserere of Allegri, for the
use of the Imperial chapel at Vienna; which being granted,
he copied it by the maestro of the pope's chapel, and sent to
the emperor, who had then in his service some of the first figures of the age; but, notwithstanding the abilities of the performers, this composition was so far
from answering the expectations of the emperor and his
court in the execution, that he concluded the pope's maes-
tro di capella, in order to keep it a mystery, had put a
trick upon him, and sent him another composition. Upon
which, in great wrath, he sent an express to his holiness,
with a complaint against the maestro di capella, which
occurred his immediate disgrace, and dismissal from the
service of the papal chapel; and in so great a degree was
the pope offended, at the suppos'd imposition of his com-
poser, that, for a long time, he would neither see him nor
hear his defence. However, at length, the poor man got
one of the cardinals to mediate his cause, and to acquaint
his holiness that the style of singing in his chapel, particu-
larly in performing the Miserere, was such as could not be
expressed by notes, nor taught nor transmitted to any other
place, but by example, for which reason the piece in question,
though faithfully transcribed, must fail in its effect
when performed elsewhere. This holiness did not under-
stand music, and could hardly comprehend how the same
notes should sound differently in different places; how-
ever, he ordered his maestro di capella to write down his
defence, in order to be sent to Vienna, which was done;
and the emperor, seeing no other way of gratifying his
wishes with respect to this composition, begged of the
pope that some of the musicians in the service of his hol-
nies might be sent to Vienna, to instruct those in the service
of his chapel how to perform the Miserere of Allegri, in
the same expressive manner as in the Sistine chapel at Rome,
which was granted. But, before they arrived, a war broke
out with the Turks, which called the emperor from Vi-
nena; and the Miserere has never yet, perhaps, been truly
performed but in the pope's chapel.

With respect to the intrinsic worth of this renowned
Miserere, as a musical phenomenon, we know that more sublime
compositions have been produced, since Allegri's time, by
musicians of superior genius; but the words were thought
by the heads of the Roman church to be fit with so much
more propriety, reverence, and effect, than by any former
ecclesiastical composer whose productions had been allowed
admission into the service of the papal chapel during the
holy week, that, besides the manner in which it was per-
formed, its merit was perhaps somewhat exaggerated in
imagination by the mystery with which it was sedulously
preferred from profane examination.

ALLEGRINI, FRANCESCO, an engraver, who lived at
Florence, and flourished in 1760. By him we have many
portraits, from different masters. The image of St. Francis
d'Alfie is held in high estimation at Vienna, in the church
named l'Alberino. Strutt.

ALLEGRO, Ital. Majo, denotes gay, cheerful, quick.
The force of this term is augmented by the words più, afai,
and the superlative degree of comparison, as più allegro,
more quick; allegro afait, and allegroffino, very quick. It
has likewise its diminutives, as poco allegro, and allegrettto,
slow, gay, cheerful, or quick. Allegro is the degree of time
between Andante and Presto, which vce.
with the terms of conformity, he preferred the alternative, imposed by the act of uniformity, of quitting his living after having retained it for 20 years, and of ranking with about 2000 other sufferers, who were distinguished by the denomination of ejected ministers. Under the restraints and penalties of this act, he exercised his ministry in the house of Mr. More, who had been formerly a member of parliament, and who lived in his neighbourhood; and though he was reprimanded by the magistrates and imprisoned, his reputation for piety, learning, and exemplary conduct, procured a mitigation of the rigorous treatment with which he encountered. In consequence of "The Five-mile Act," he was under a necessity of removing from Batcomb to Frome-Selwood, where he continued in the discharge of his professional duties, notwithstanding the dangers to which he was exposed. In this situation he remained, till death terminated his trials and labours in 1681. He was distinguished by his plain, practical, and pathetic manner of preaching, and by his affability in the duties of his pastoral office, such as catechising, visiting the sick and instructing the ignorant. Although he was an avowed non-conformist, and rigidly attached to his principles, the moderation of his temper, as well as his general character, recommended him to the clergy and laity of sentiments different from his own, and he lived amongst them on terms of friendship and intercourse. Mr. Jenkins, vicar of Frome-Selwood, preached his funeral sermon, and bore testimony to his piety, meekness, and moderation. His works, which were all of the devotional kind, were much esteemed, and frequently reprinted. The principal of these was his "Vindiciae Pictatis," or, "A Vindication of Godliness, in the greatest finned and spiritualty of it, from the imputations of folly and fancy," which was published in 1665, without a printer's name, because it was not licensed; but all the copies of it were seized and sent to the king's kitchen for wastepaper. They were afterwards bought by the king's bookfeller, who had caused them to be seized, at a cheap rate, and sold; for which artifice he was brought on his knees to the council table, and the books were again sent to the king's kitchen and bilked, i.e. bruised over with ink, so as to be illegible. The other works of Allen were "Heaven opened, or a brief and plain discovery of the riches of God's covenant of grace," printed in 1666; "The World Conquered," 1668, 8vo.; "Godly Fear," 1674. 8vo.; "A Refutke to Backfiders, and a Spar for Loiterers," 1677, and 1684, 8vo.; "A Companion for Prayer," 1680, 12mo.; "Instructions about Heart-work," &c. 1681, 8vo. Calamy's Life of Baxter, vol. ii. Wood's Athen. Oxon. vol. ii. Biog. Brit.

ALLEIN, Joseph, a nonconformist divine, was born at Devizes, in Wilts, in 1634. Having manifested at a very early age an eminently pious disposition and an inclination for the ministry, he was educated with this view and sent to Oxford at the age of 16 years. At college he was distinguished by diligence in his studies and gravity in his deportment. In 1653 he became a tutor in the college of Corpus Christi, to which he belonged, and where, for the exercise of his gifts in prayer, he had performed the office of chaplain, which he preferred to a fellowship; and in this situation he was so affiduous and so successful, that many of his pupils occupied respectable situations both in the established church and among the nonconformists. In 1655 he left college, and was assistant minister at Taunton Magdalens, in Somersetshire, until the year 1662, when he was deprived for nonconformity. During this connection he was indefatigable in his ministerial services, and his conduct was so amiable and exemplary, as to secure the affectionate esteem and attachment of his parishioners. After his exclusion from the church, he persevered in his labours, and preached commonly six or seven, and sometimes 14 or 15 times a week; till in 1663 he was convicted of seditious libels, for which seven ministers and 50 quakers were closely confined and enduring similar sufferings. At this period Allen was convicted of having preached in the preceding May, and sentenced to pay 900 marks, and to remain in prison till the fine was paid. "I am glad," said he on receiving his sentence, "that it has appeared before my country, that whatever I am charged with, I have been guilty of nothing but doing my duty; and that all which appeared from the evidence was, that I sung a psalm, and instructed my family, others being there, and both in my own house." By an imprisonment of 12 months, Allen's constitution was impaired and the duration of his life shortened. After his release he renewed his labours, and his sufferings were all renewed; his health gradually declined; and in 1668 he finished his course, at the age of 35 years. His biographers, Anthony Wood excepted, bear testimony to his learning and charity. Zealous in his own mode of worshipping God, he was not, as ministers of the established church have testified, in the least bitter towards any Christians who worshipped in another manner. He preferred a great respect for the church, notwithstanding all his sufferings, and was eminently loyal to his prince, notwithstanding the severities of the times. His writings breathe a true spirit of piety, for which they have been always and deservedly esteemed. His works are, "An Explanation of the Assembly's Shorter Catechism," 1676, 8vo.; "A Call to Archippus," exhorting the ejected ministers to continue in their ministrations, 1664, 4to.; "An Alarm to the Unconverted," 1672, 8vo. and 12mo. of which 20,000 were sold, and after it was printed in 1675 under the title of "A Sure Guide to Heaven," 5000; "Christian Letters, full of Spiritual Instruction," 1672, 8vo.; "Cates of Conscience," 1672, 8vo.; "Remains, &c." 1672, 8vo.; and several other small practical pieces; besides an imperfect body of natural theology in Latin, which has not been printed. An account of his life and death is often annexed to his writings. Calamy's Baxter, vol. ii. p. 577, &c. Neal's HIst. of the Puritans, vol. ii. p. 670, 4to. Biog. Brit.

ALLELENGONY, in Antiquity, a kind of tax, or tribute, which the rich paid to the poor, when abluent in the armies.

ALLELOPHAGI, from ἀλλὰ, one another, and φάγει, I eat, in Natural History, a term used by Mousquet, and other writers on insects, to express a peculiar genus of flies, which feed on one another. They are thus called in distinction from another class, called the heterophagi, from their feeding on different substances, not on one another.

ALLELUJAH. See HALLELUJAH.

ALLEMAENGLIC, in Geography, a small Moravian settlement on Swatara river, in Pennsylvania.

ALLEMAND, a river of America, which falls into the Mississippi from the south-east, about 43 miles south of the Natchez.

ALLEMANNIC, in Music, an ancient movement in common time, moderately quick; supposed, from its title, to be of German invention. In almost every nation, or country for the harpsichord in Handel's time, there was a prelude, an almand, a farand, a courant, and a jig, which see. Rousseau says, the almand is a dance very common in Switzerland and Germany, as it became in England a few years ago. But the almand for dancing is very different from those in the works of Corelli, Handel, and Mattheson.
ALLEN, Thomas, a learned divine, was born in 1575, educated in the King's School at Worcester, and removed to Oxford in 1589, where he made a great progress in philosophy, and became a noted disputant. He took orders, but applied to the abstruse and critical parts of learning more than to preaching. He wrote in Latin "Observatio on St. Chryfolam's book upon Paulus," published in Sir H. Savile's edition of Chryfolam's works, and affix'd his name to this father's homilies on the Evangelists. Savile represents him "as a learned man, and no less skil'd in the Greek learning than in divinity." He died in 1636, and was buried in the chapel of Eton-college, of which he was a fellow. Biog. Brit.

ALLEN, Benjamin, M. D., published in the year 1700, at London, "The natural history of the chalybeate and purging waters in England," 8vo. This was reprinted in the year 1711. He gives the analysis of the several waters, which he places under the heads of chalybeate, saline, fulphrous, or mixed, and attributes their virtues to a subtle gas or spirit with which they suppose they are imbued. There are 60 memorials extant of the life of this writer.

ALLEN, John, M. D. F. R. S., published in the year 1719, "Synopsis universae Medicinae Practicae," 8vo. The work is dedicated to the president and fellows of the Royal College of Physicians, London; and comprises brief descriptions, and accounts of all the diseases incident to the human body, with the most approved modes of treating them; taken, as the author everywhere acknowledges, from the most eminent writers, ancient and modern. Of this work the author speaks very modestly, and particularly admonishes the reader not to content himself with the abstractions that he has given, "sed patius authores ipso ubicunque confutavit; num in "transfusibus," he adds, "eorum sententiar, veritatis et, me frequenter error, aut solam semem docum, aut imperius "recte tradidisse. Dulcia ex ipso fonte bilatam aqua." The work was, however, received with such avidity, not only in England but in all parts of Europe; in the space of a very few years, it passed through numerous editions, to which, from time to time, the author made such additions, as increased it to nearly double its original bulk. In the year 1734 he gave an English translation, which was published in two volumes, 8vo.; it had been before translated into French. The author appears to have practised medicine in London, but no particulars of his life have been published.

ALLEN, Florin Van, an engraver, who flourished in 1686. He drew the town of Vienna, in 1696, and engraved the town of Prague, a large, flight print, with many figures. Strutt.

ALLEN, Francis, an obscure engraver of Lubeck, who flourished in 1652.
ALLERSPERG, a town of Germany, in the circle of Franconia, six leagues south of Nuremberg.

ALLERTON, called in the Polish language Olszynka, is a small town with a castle in the province of Ermeland, situate on the river All, and built in 1697.

ALLERTON, a town of Germany, in the archduchy of Austria, seven miles north of Bavarian Waldhoven.

ALLESANI, a town of Corfica, 13 miles east-north-east of Corte.

ALLESTRY, Richard, in Biography, an English episcopahal divine, was born at Uppington, near the Wreken, in Shropshire, in the year 1619, and after receiving part of his education at Coventry, under Philemon Holland, the translator, was entered a commoner in Christ-church, Oxford, under the tuition of Richard Buby, afterwards Dr. Bull, the famous master of Westminister school. From a course of study and improvement, in which after he had taken the degree of bachelor of arts, he was chosen moderator in philosophy, the direction of the times suddenly called him forth to military service. In this new occupation, he and the other Oxford scholars, manifested their loyalty; but having been protected and supported by Sir John Byron, with a party of horse, Allestry and his associates returned to their studies. It was not long before their safety was again endangered by a republican party, who entered Oxford for the purpose of plundering the colleges. Allestry contrived secretly to remove the booty which they had collected; and as soon as it was known that he was the cause of their disappointment, they feized him, and would probably have treated him with severity, if they had not been suddenly called away by the earl of Effex. On a subsequent occasion he was taken prisoner by a party of horse, but when the parliament garrison at Broughton-house, whither he was conveyed, surrendered to the king's forces, he was released. Allestry refraining his studies, took his degree of master of arts. As soon, however, as he recovered from a disorder which threatened his life, and which had prevailed in the garrison at Oxford, he entered again into the king's service, and encountered the fatigues and hazards of a military life, in the humble station of a common soldier. In this service, blending the watchings of a soldier with the incursions of a scholar, he continued till the end of the war; and when the republican party became triumphant, he retired to his college. Here he was employed in the office of censor, and as private tutor to several students; and though he had no prospect of ecclesiastical preferment, he entered into holy orders. Still zealously attached to the royal party, he signed the decree passed in the university of Oxford, against the solemn league and covenant. In consequence of this act, he and other members of the university, with whom he concurred, were proscribed and banished from Oxford by the parliamentary visitors. To him, however, a short refuge was granted for settling his affairs, "because, as one of their number affected, 'he was an eminent man.'" During the depression of the royalists he found an asylum, and in the house of Francis Newport, Esq., in Shropshire, where he officiated as chaplain, and afterwards in that of Sir Anthony Cave, in Oxfordshire. His talents and fidelity rendered him an useful and active instrument in preparing the way for the restoration of Charles II. In one of his expeditions for this purpose he was seized at Dover by a party of soldiers, and committed to the jail of the king's friends at Lambeth house. Upon his release from confinement, he proposed to visit his friend Dr. Hammond, at Welwood, near Worcester; but when he approached his house, he met

his
his funeral procession. Of his esteem, however, he received a valuable testimony in the legacy of his library, which was bequeathed to him for this reason; because the tellator "well knew that the books in his hands would be useful weapons for the defence of the cause which he had during life so vigorously supported."

Soon after the Restoration, Allestry returned to Oxford, and took the degree of doctor in divinity. In recompense of his past services he was soon made a canon of Christ church, one of the king's chaplains in ordinary, and regius-professor of divinity. In 1665 the king conferred upon Dr. Allestry the provostship of Eton college, which he held till his death. To this college he was a munificent benefactor, by retaining his own dues in order to pay off its debts, and by erecting at his own expense the west side of the outward court of the college; nor was he less liberal in other respects, as he settled pensions on indigent persons and families, and distributed his income in occasional charities. At the instance of Dr. Allestry, and in compliance with the petition of the provost and fellows of King's college, Cambridge, the king paupered a grant under the broad seal, that, whereas formerly the fellowships of Eton were generally disposed of to persons of foreign education, for the future five of the seven fellows should be such as had been educated at Eton school, and were fellows of King's college. In 1679, Dr. Allestry, finding his health, and particularly his sight, much impaired, resigned his professorship of divinity; and in 1681 a drooping terminated his life, and he was buried in Eton chapel, under a monument of white marble, on which is inscribed a Latin epitaph, distinguished by its terseness and elegance. A biographer in an account of his life prefixed to his sermons represents Dr. Allestry as a man of uncommon talents and singular merit. "Memory, fancy, judgment, eloquence, great modesty, and no less assurance; a comprehension of things, and a facility of words; an aptness for the pleasant, and sufficiency for the rugged parts of knowledge; a courage to encounter, and an industry to master all things, make up the character of his happy genius. There was not in the world a man of clearer honesty and courage; no temptation could bridle him to do a base thing, or terror fright him from the doing a good one. This made his friendships as lastingly and inviolably as his life, without the dirty considerations of profit, or fly reserves of craft; not the pageantry of ceremonious address, or cold civility, much less the servile fawning of obsequious flattery." Whatever may be thought of his political principles, no doubt can be entertained of his constancy; and of the benevolence of his disposition, his numerous acts of liberality afford sufficient evidence. Of his literary talents, politeren can only judge by a volume of forty sermons, printed in folio at Oxford, in 1684; and excepting one singular instance of credulity which they furnish, they do no discredit to the memory of the author. His lectures, which gave satisfaction to those who heard them, he would never be prevailed upon to publish. His valuable library he left to his college. Biog. Brit.

ALLESTY, JACOB, a poet of the 17th century, was the son of a bookseller, in London, and entered Christ church, in Oxford, in 1651, at the age of 18 years. He took the degrees of bachelor and master of arts, and was music-reader in 1659, and terræ-filius in 1662, both which offices he executed with great applause, as he was esteemed a good philologist and poet. He died in 1686, in consequence, as it is said, of the vices of his youth, and was buried in the church of St. Thomas, at Oxford. The pieces of poetry, written by him, were printed in a book, entitled, "Examen Poeticum". Biog. Brit.

ALLEURI, or ALLODE, in Antiquity. See Allodium.

ALLEYARD, in Geography, a town of France, in the department of Here, and district of Grenoble, six leagues north-north-east of Grenoble.

ALLEYRE, the smallest copper coin that is struck in Sweden; it is not worth quite two deniers Tournois of France, or about 3d of English money.

ALLEVIARE, in Old Records, to levy or pay an accustomed fine or composition.

ALLEVIATION, denotes the art of making a thing lighter, and easier to bear or endure.

The word is originally Latin, compounded of ad, to; and levare, light.

In which sense, alleviation is synonymous with lightening, and lands opposed to aggravation.

ALLEX, in Geography, a town of France, in the department of the Drome, and district of Crest, on the north side of the Drome, 10 miles south of Valence.

ALLEY, WILLIAM, in Biography, bishop of Exeter, in the reign of Queen Elizabeth, was born at Great Wycomb, in Buckinghamshire, educated at Eton School, and removed to King's college, in Cambridge, in 1528. Here he took the degree of bachelor of arts, and afterwards pursued his studies at Oxford. He was a zealous reformer; and upon Queen Mary's accession he quitted his benefice, and travelled in the northern parts of England, where he was not known, gaining a decent subsistence by the practice of physic and the instruction of youth. When Queen Elizabeth ascended the throne, he came to London, and acquired such reputation in preaching the divinity lecture at St. Paul's, that he was consecrated to the see of Exeter in 1569; and in 1561 he was created doctor of divinity at Oxford. He died in 1570, as some say, according to others in 1571, and, as Fuller says, in 1576, and was buried at Exeter, in the middle of the choir. Over his tomb is a Latin inscription, representing him as "a zealous advocate for the truths of the Gospel, eminent for his virtues, and remarkably skilled in all the useful parts of learning." He wrote "The Poor Man's Library," a miscellany, in two volumes, containing lectures upon the Epistle of St. Peter, and "An Hebrew Grammar." When the version of the Bible was undertaken by command of Queen Elizabeth, this bishop translated the Pentateuch. "His Judgment concerning the Doctrine and Discipline of the Church," has been published by Strype in his Annals of Queen Elizabeth. Biog. Brit.

ALLEY, derived from aller, to go, in Gardening, signifies a narrow or confined path between beds, borders, or other compartments of a garden, and is chiefly formed for the convenience of going between them, in order to perform the necessary offices, such as hoeing and weeding the plants, and also to cut, pick, and collect the plants or fruits. Alleys are made of different breadths, according to the sizes of the beds or compartments; but in general a breadth from one to two feet is sufficient. In extensive kitchen-gardens, where borders are carried round near the walks, and immediately adjoining the main quarters of the ground, they should be divided from them by two feet alleys, for the convenience of carrying in dung, water, &c. and the large compartments should likewise be divided by one or two crofs alleys, with the same intention. Alleys between asparagus beds should confantly be two feet wide; these between strawberries, a foot and a half; but between beds of aromatic herbs, fifteen inches may be fully sufficient; and between beds of onions, leeks, carrots, parsnips, lettuce, endive, and all other small crops, the width of ten or twelve inches is as much as is requisite in general; and the same distance between beds of feeding and pricked-out cabbages, savoys, celery, &c. for the convenience of going in to weed, water, and draw the young plants for transplantation, will be the most convenient. Alleys are frequently intended both for

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life
...and ornament in flower-gardens; therefore, between beds of tulips, hyacinths, ranunculuses, amonites, and other small garden-flowers that are bedded, they should in general be eighteen inches or two feet wide; and in order to have them ornamental, the beds should be edged with box, and the alleys filled with the best coloured fine gravel; or where that cannot be readily procured, with sand, shells, or other porous substances. See **Gravel Walks**.

**Alley, in Droll Husbandry**, implies the vacant space between the outermost row of corn on one bed, and the nearest row to it on the next parallel bed. In the practice of drilling it was at first supposed that narrow alleys would not answer the end for which they were intended; while, on the other hand, the making them very wide would be a loss of ground; about four feet, exclusive of the spaces or partitions, between the rows of corn in the beds, was therefore considered as the most suitable and convenient distance. But as it is obvious, that it is not necessary to make the alleys so wide in good soils as in those of inferior quality, and that some sorts of crops require much larger spaces than others; the intelligent husbandman should always decide what breadth is the most proper in different cases, and for different purposes; one circumstance must, however, be duly attended to, which is, that wide alleys are more easily and much better filled between than those that are narrower; for, when an alley is wide, the large furrow in the middle of it may be cut deep, there being then sufficient room to turn the earth over towards the rows, while, on the contrary, the earth where alleys are narrow cannot be thrifed deep enough, nor can room be found for what is turned over out of the furrows, without danger of burying some part of the rows of corn or other crops that may be cultivated. In hoeing these spaces the whole of them is not to be thrifed, either with the plough or cultivator, when the crop appears; neither of these instruments should go too near the rows of corn or other crop, for fear of rooting up the rows of corn or young plants; but a slip of earth, about six inches wide, is directed to be left untrenched on the outside of each bed, by which means the part of the alley that is to be thrifed will be reduced to the breadth of three feet; and even that space is lessened in the first ploughing before winter by a deep furrow, which is then cut close to, and all along those six-inch slips, and the earth taken out of each furrow is thrown into the great furrow in the middle of the alley, which it fills and arches up. These two side-furrows make together a breadth of about eighteen inches, and consequently leave, in the middle of the alley, a space of about eighteen inches more, on which is heaped up the earth thrown out of the two furrows; and thus the alleys are to remain during winter. By the first hoeing in the spring, the earth heaped up in the middle of the alleys is to be turned back towards the rows of corn. The two furrows that were opened before winter are then filled up, and a new one is cut in the middle of the alley. This business may be very easily performed with the common plough; two turns of that instrument being frequently sufficient for the purpose, one on each side of the alley, as near as possible to the beds. But when these two turns are not sufficient to form the furrows perfectly, or where too much earth remains between it and the bed, a third turn becomes necessary, and sometimes a fourth, in order to hollow the middle furrow as it ought to be. When this work is performed with the cultivator with two mould-boards, the instrument must be placed in the middle of the alley, and the horSES in one of the two furrows; the share readily entering a great depth into the earth, which was laid there by the left hoeing before winter, the horSES advancing, the ridge of the earth is divided into two parts, and fills up the furrows that were made before winter, on each side of the alley, close to the beds. Thus, the high furrow in the middle of the alley may be opened, and the whole operation performed by a single turn of the cultivator; by which so much time and labour is saved, that the farmer may afford one or two hirings more in the summer, which will be of great utility in many cases. See **Cultivator, Horse-hoeing, and Droll Husbandry**.

**Alleyn, in Perfecitatis**, is that which is larger at the entrance than at the exit; to give it the greater appearance of length. **ALLEYN, Edward, in Biography**, a celebrated comedian, was born in London in 1566, and trained at an early period to the stage, for which he was naturally qualified by a stately port and aspect, corporal agility, flexible genius, lively temper, retentive memory, and fluent eloquence. Before the year 1592 he seems to have acquired a very considerable degree of popularity in his profession; he was one of the original actors in the plays of Shakspeare, and a principal performer in some of those of Jonson; but it does not now appear what were the characters which he performed. They were probably the most dignified and majestic, for to these the portly and graceful figure of his person was well adapted. At length he became master of a company of players, and the proprietor of a play-house, called the Fortune, which he erected, at his own expense, near Whitecrofts-court; and he was also joint proprietor and master of the Royal Bear-Garden, on the Bank-side, in Southwark. By the profits accruing from these occupations, added to his paternal inheritances, and to the dowries of his two wives, by whom he had no children, he amassed a considerable property, which he bequeathed in a manner that has reconciled more to his honour than his profissional merit. The wealth thus acquired enabled him to lay the foundation of a college, for the maintenance of aged people, and the education of children, at Dulwich, in Surrey, which institution, called, "The College of God's Gift," subsists at this time in an improved and prosperous state. The liberal founder, before he was 48 years of age, began this building after the design, and under the direction, of Inigo Jones; and it is presumed that he expended eight or ten thousand pounds upon the college, chapel, &c. before the buildings and gardens were finished, which was about the year 1617. It is hardly necessary to mention a fabulous tradition concerning the origin of this college, recorded by Mr. Aubrey. The idle traditions, which deserves no credit, and needs no confutation, reports, that Mr. Alleyn, "playing a demon, with fix others, in one of Shakspeare's plays, was, in the midst of the play, spurried by the apparition of the devil, which so worked on his fancy, that he made a vow, which he performed at this place." After the founder had built this college, he met with difficulties in obtaining a charter for settling his lands in mortmain, that he might endow it, as he promised, with 800l. per annum, for the support and maintenance of one master, one warden, and four fellows, three of whom were to be ecclesiastics, and the other a skilful organist; all fix poor men, as many women, and twelve poor boys, who were to be maintained and educated till the age of 14 or 16 years, and then put out to honest trades and callings. The master and warden were to be unmarried, and always to be of the name of Allen or Alleyn. At length the opposition of the Lord Chancellor Bacon was overcome, and Alleyn's benefaction obtained the royal licence, and he had full power granted him to establish his foundation, by his Majesty's letters patent, under the great seal, bearing date June 21, 1619. When the college was finished, the founder and his wife resided in it, and conformed in every respect to the regulations established for the government of his almshouses. Having, by his will, liberally provided for his widow, and for founding 20 almshouses, in the parish of St. Botolph, with-
out Bishoptgate, in which he was born, and ten in St. Saviour’s parish, Southwark, and bequeathed several small legacies to his relations and friends, he appropriated the residue of his property to the use of the college. He died in 1626, in the 61st year of his age, and was buried in the chapel of his own college. The chapel, master’s apartments, &c. are in the front of this building, and the lodgings of the other inhabitants, &c. in the two wings, of which that on the call side was handsomely new built, in 1739, at the expense of the college. They have a small library of books, and a gallery of pictures, with that of the founder at full length. The inscription over the door concludes with these words: “Abi tu, et fac finmitter;” i.e. Go thou, and do likewise. Bifl. Brit.

A.I., in Botany. See CHENOPORIUM.
A.I.I., or SEMISIUS, in Antiquity Geography, a river of Britunia, in Italy.
A.I.I.A, a small river of Italy, in the territory of the Sabines, to which Virgil (lib. vii. v. 717.) annexes the epitaph of “infantum nuncith,” in allusion to the defeat of the Roman army by the Gauls on the banks of this river, when, in the year of Rome 363, 40,000 Romans were either killed or put to flight. Hence, “Alienis dies,” is in their almanacks marked as an unlucky day, i.e. the 18th of July, which was the anniversary of this battle. Livy (lib. vii. c. 37. tom. ii. p. 167.) represents this river as running down a very steep channel from the mountains of Cilurnum, at the 11th mile-stone, and mixing with the Tiber. Our ancestors, says Cicero (ad Attic. lib. ix. 5. tom. viii. p. 553.) deemed the day of the battle of Allia, more fatal than that of the capture of the city.

AIIANCE, in the Civil and Canon Law, the union or connection of two persons, or two families, by means of marriage; otherwise called affinity.

The word seems formed of the Latin adligatio, q. d. a tying together.

The law of the Twelve Tables forbids all alliance between persons of unequal rank and condition. And in Portugal, we are told, the daughters of the nobility are prohibited to ally with such as have never been in the wars.

AIIANCE is also extended to the leagues or treaties concluded between foreign princes and states, for their mutual safety and defence; in which sense they are the same with what we otherwise call confederacies, leagues, &c. Alliances make a species of treaties, which are usually divided into treaties of peace, of commerce, and of alliance, properly so called. There are sometimes particularly denominated foreign alliances.

Alliances are variably distinguished, according to their object, the parties in them, &c. Hence we read of equal, unequal, triple, quadruple, grand, offensive, defensive, &c. alliances. Unequal alliances, societas nequialia, are those wherein one of the contracting parties promises patronage or protection, and the other fidelity and observance; by which they stand contradistinguished from alliances, wherein the several powers treat on a par. Offensive alliance, is that whereby the parties oblige themselves jointly to attack some other power. This stands contradistinguished from defensive alliances.

Alliances, offensive and defensive, are those in which the contracting parties agree to regard as a common enemy any power that attacks either of them, as well as mutually to defend each other. Such was that between the Emperor and the States-General against France, concluded at Vienna the 12th of May, 1689, and which was the commencement of that which was called the general or grand alliance. To this treaty Spain was to be invited by the emperor, and England by the States, and it was stipulated that all the allies of either party were to be admitted, if they thought proper to accede. The triple alliance between England, Holland, and Sweden, in 1668, concluded by the negotiation of De Witt and Temple, was an event of importance in the history of Europe. England thus recovered her influence and credit in Europe. Temple was appointed for it. The French monarch and the court of Spain were greatly displeased; but they were obliged to acquiesce, as the whole of Europe seemed to rejoice with security under the wings of that powerful confederacy, which had been so happily formed for her protection. Another alliance of this kind was formed in 1701 between the kings of Great Britain and Denmark, and the States-General; and another between the Emperor, England, and Holland was concluded in the same year. A triple alliance was formed in 1716 between Great Britain, France, and the States-General. The intrigues of Cardinal Alberoni, prime-minister to Philip V. of Spain, produced various negotiations in 1716, from which at length sprung the treaty, called at first the triple alliance between Great Britain, France, and Holland; and, after the accession of the emperor, filled the quadruple alliance. The object of this alliance was to settle all disputed pretensions between Spain, Germany, and some of the Italian princes. The king of Sicily was admitted into this treaty; and at length the king of Spain himself was forced to accede to it; and Alberoni was banished by Philip V. But as some points were still controverted between the emperor and King of Spain, these were to be amicably determined in the congress opened at Cumbrey in 1721, under the mediation of his Britannic Majesty and the most Christian King. Puffendorf, Grotius, and other writers upon the laws of nature and nations, have distinguished alliances into personal and real. The former are those which are made with a king considered personably, so that they terminate with his life, and real are such as extend between states and nations, and which subsist and retain their obligation after the death of the king or ruling magistrates. It has been argued by others, that the admission of personal alliances is inconsistent with the foundation of political society, and that they tend to separate the sovereign from his subjects.

Though the title of allies, socii, of the Romans, was a sort of fervour, it was much coveted. Arrinathes, we are told by Polybius, offered a sacrifice to the gods by way of thanksgiving for having obtained this alliance. The reason was, that therefrom forwards people were sure not to receive any injuries except from them. Cesar informs us that a great number of kings had this honour. There were divers sorts of allies: some only united to them, by a participation of the privileges of the Romans, as the Latin and Hermiti; others by their very foundation, as the colonies; others by the benefactions they received from them as Manninian, Eumenes, and Attalus, who owed their kingdoms to Rome; others by free treaties, which lasted by a long alliance, became subjects, as the kings of Bithynia, Cappadocia, Egypt, and most of the cities of Greece; lastly, others by compulsion, treaties, and the law of substitution, as Philip and Antiochus. For they never granted peace to an enemy, without making an alliance with him; that is, they never subdued any people without using it as a means of subduing others.

The allies of Italy, socii Italici, were distinguished from other foreign allies. Of these there were two kinds: those distinguished by the name of prefectures, who were governed by Roman magistrates and laws, and those who retained the privilege of being governed by their own ancient laws, and were denominated autonomi. The Latin allies, socii latini, were those who enjoyed the jus Latii, and who held the first rank.
rank in the order of allies; of these there were three distinctions, viz. those who inhabited Latium, the Latin colonies, and those on whom were conferred the privileges of the Latin colonies, on account of some service which had been rendered by them to the Roman state, or by the peculiar favour of the Roman people and the emperors. There was a great difference between the allies and the auxiliaries, when they were admitted into the armies of the Roman empire. The allied troops were always taken from the allies of Italy, which had never been reduced into Roman provinces. The auxiliaries were furnished by the foreign allies. The allied troops maintained themselves at their own charge, and were supplied only with corn by the Romans; the latter were kept in pay by them. When the allies joined the Roman army, the confuls chose 12 out of their number to command them, under the name of prefects. They were of the same number, and possessed similar powers with the tribunes of legions. The places which they occupied in the army and camp were alligned by particular regulations. The allies of the provinces, socii provinciales, held the first rank among the foreign allies. The honour of this appellation was conferred on provinces, which submitted to the dominion of the Romans, and were governed by their own magistrates, according to the customs and laws of Rome, and paid an annual tribute to the senate. The socii immunes were those who had never been enemies to the Romans, and who were exempt from every kind of imposition. Such were Ptolemy, king of Egypt, and the Jews, who were the first of the eastern nations which solicited the friendship of Rome. Others, after having been enemies of the Romans, laid down their arms and contracted alliances with them.

The forms or ceremonies of alliances have been various in different ages and countries. The Romans conferred it on sovereigns by a deputation of senators, who accompanied it with a sceptre of ivory, the toga picta, and the titles of ally and friend of the Roman people. Among us, signing and swearing, sometimes at the altar, are the chief; and anciently eating and drinking together, chiefly offering sacrificies together, were the customary rites of ratifying an alliance. Among the Jews and Chaldeans, heifers or calves; among the Greeks, bulls or goats; and among the Romans, hogs were sacrificed on this occasion. Among the ancient Arabs, alliances were confirmed by drawing blood out of the palms of the hands of the two contracting princes with a sharp flune, dipping herein a piece of their garments, and thereby with smearing seven flunes, at the same time invoking the gods Vrotalt and Ailat, i.e. according to Herodotus, Bacchus and Urania. Among the people of Colchis, the confirmation of alliances is said to be effected by one of the princes offering his wife's breasts to the other to suck, which he was obliged to do till blood flowed.

It has been disputed, whether the states of the empire have a right of making alliances without the emperor's participation; and whether the king of England be vested with absolute power of making alliances at discretion, without consent of parliament. Dr. Davenant afferts the negative. According to him, the contrary opinion owes its rise to the mere flattery of modern couriers, having no foundation in the ancient laws and constitution of the kingdom. King John and Richard II. were, according to this author, the first that attempted any thing like it. It is certain there occur numerous instances in history, where the king has afted, or the parliament have offered their advice, concerning the alliances to be made; but there are many others, at least of later times, wherein no footsteps of any such consultation appear. There are instances likewise where the parliament have declined giving any advice concerning such arduous matters.

**Alliance, in a figurative sense, is applied to any kind of union or connection; and in this sense the late bishop Warburton has used the term in his treatise, entitled, "The Alliance between Church and State," published in 1736. Some persons, however, who are advocates for a religious establishment, have objected to this use of the term; alleging, that alliance implies a contract formed by two or more independent powers; whereas the established church, being a part of the state, or one of its members, cannot properly be represented as entering into alliance with it. "The notion," says Lord Bolingbroke (Works, vol. iv. p. 515.) "of a formal alliance between the church and the state, as between two independent distinct powers, is a very groundless and whimsical notion." He informs us, that Dr. Senior, preaching before King Charles II. at Newmarket from Exod. i. 14, 15, 16, established on these texts a supposed alliance between the church and the state, or rather between the church and the king. "Warburton," he says, "took his hint possibly from it;" but of this we have no evidence besides his lordship's assertion. Others have objected to the sentiment implied in the expression. "Every other idea" of a church establishment, besides that of a scheme of instruction, and "every other end" that has been blended with that of the preservation and communication of religious knowledge, "as the making of the church an engine, or even an ally of the state; converting it into the means of strengthening or of diffusing influence; or regarding it as a support of regal in opposition to popular forms of government, have served only to debase the institution, and to introduce into it numerous corruptions and abuses." Paley's Principles of Moral and Political Philosophy, vol. ii. p. 305; ed. 6th. See Religious Establishment.

**Alliance Island, in Geography, an island in N.lat. 80° and E. long. 100°, discovered by a ship so called from Philadelphia in 1787.

**Allaria, in Botany, a species of Erysimum.

**Alllica, in Entomology, a species of Papilio Xymenitis, with wings dentated and of a dark yellow colour; with numerous black points intermixed with white; found, of a small size, in Siam.

**Allieni Forum, in Ancient Geography, a city of Italy, now generally thought to be Ferrara.

**Allier, in Geography, a river of France, which gives name to one of the departments. It rises near Chateau Neuf de Randon, in the department of Lozere, and joins the Loire three miles west of Nevers.

**Allier, department of, is formed of the ancient province, Bourbannos. It is bounded on the north, by the departments of Saone and Loire, Niether and Cher; on the eait, by those of Saone and Loire, and the Loire; on the south, by those of the Loire, Puy de Dome, and Creuse; and on the west, by those of Creuse and Cher. Its superficies is about 1,454,341 square acres, or 742,272 hectares; its population about 266,105 individuals; it is divided into four communal districts; and its chief town is Moulins.

**Alligation, in Antiquity, the basefand word of kinds of slaves, whom they kept locked up, or with fetters on.

The Romans had three degrees, or orders, of slaves or servants; the first employed in the management of their estates, the second in menial or lower functions of the family, the third called alligati, above mentioned.

**Alligation, in Arithmetie, a rule or operation by which questions are resolved, relating to the mixture of diverse commodities or ingredients together, with the value, effect, &c. thereof in composition.

The word is formed of alligare, to tie together, by reason, perhaps, of a sort of vincula, or circular ligatures, ordinarily used to connect the several numbers together.
Alligation is of two kinds, medial and alternate; to which some add a third, called partial.

Alligation medial teaches how to find the mean rate of a mixture, when the particular quantities that are mixed or compounded, and their respective mean rates, are given.

The several cases will come under the following rules.

I. The quantity of the ingredients, and the prices of each, being given; to find the price or value of some part of the mixture.

Rule. As the sum of the quantities given, is to the sum of the products of each ingredient by its price, so is any quantity of the mixture, to its value.

Example 1. A refiner, or goldsmith, hath 12 3/4 of gold at 4l. per 3/4, 9 3/4 at 4l. 5s. 3/4 at 4l. 6s. 8d. and 9 3/4 at 4l. 13s. 4d. per 3/4; what is an ounce worth of all these melted together?

\[ \frac{3}{4} \text{ of gold} \times 12 \text{ lb.} = 48 \]
\[ 8 \text{ lb.} = 34 \]
\[ 3 \text{ lb.} = 13 \]
\[ 9 \text{ lb.} = 42 \]

32 total = 137 lb.

Then as 32 : 137 :: 1 3/4 : 4l. or to 4l. 5s. 7 3/4.

By the same rule the value of any other quantity of that composition is to be found; as supposing 7 3/4.

For as 32 : 137 :: 7 : 29 3/4.

Example 2. Suppose it were required to mix 6 gallons of wine at 5s. a gallon, 8 at 6s. and 4 at 8s. what would be the value of the mixture per gallon?

\[ 6 \times 5 = 30 \]
\[ 8 \times 6 = 48 \]
\[ 4 \times 8 = 32 \]

Whole compound, 110 lb.

Then 18 = 110 (6 2/3 or 6 5/6) is the value found.

II. The prices of the several ingredients, and the sum paid or received for the mixture being given; to find what quantity of each was bought or sold. Divide the sum paid or received, by the sum of the particular prices; the quotient is the answer.

111. The ingredients of a mixture being given, to augment or diminish the mixture proportionally.

Rule. As the sum of the particular quantities of the compound given, is to the whole quantity proposed to be augmented or diminished; so is each particular quantity in the given compound, to the due proportion required of that species, fineness, &c.

Example. The compound in the foregoing instance is required to be augmented to 48 3/4; that is, 16 is to be added to 32, how much of each ingredient must be taken?

\[ \frac{12}{8} \text{ Then as 32 : 16 :: 3 : 1\frac{3}{4}} \]
\[ 9 \text{ lb.} = 4\frac{3}{4} \]

32 sum. = 16 sum.

So that there must be 18 3/4 of gold at 4 0 0 per 3.

\[ \frac{12}{12} \]
\[ 4 \times 5 = 0 \]
\[ 6 \times 8 = 48 \]

Sum = 48 for proof of the operation.

IV. The nature, quality, &c. of the several ingredients of a mixture being given, to find the temper or degree of fineness resulting from the whole. Place the several quantities of the mixture in rows; against which place orderly their several qualities or finenesses; and multiply each quantity by its own quality or degree of fineness; then, as the sum of the quantities is to the products, so is unity to the quality or fineness of the mixture.

V. The quantities of a mixture being given; to find the particular quantities of any ingredient in any part of the mixture.

Rule. As the total of the composition, is to the quantity of any simple in that composition, so is the total quantity proposed, to be proportionally compounded, to the quantity of each simple to be in that proposed quantity.

Example. How much of each ingredient (or price of gold mentioned in the first case) is in a pound, or 12 of the 32, being the compound given?

\[ \frac{12}{8} \text{ Then as 32 : 12 :: 3 : 1\frac{3}{4}} \]
\[ 9 \text{ lb.} = 4\frac{3}{4} \]

As 32 : 12 :: 3 : 1\frac{3}{4}.

VI. Given the total of a mixture, with the whole value, and the values of the several ingredients; to find the several quantities mixed, though unequally.

This case admits of two varieties: first, where the mixture is of two simples; and, secondly, when it consists of more than two. For the first, the rule is—Multiply the total of the mixture by the least value, subtract the product from the total value; and the remainder is the first dividend; then take the said least value from the greatest valued ingredient, and the remainder is the first divisor. The quotient of this division shews the quantity of the highest-priced ingredient, and the other is the complement to the whole.

Thus, still referring to the first example, and assuming the two first terms of it:

Gold at 4l. per 3.

Ditto at 4l. 5s.

Total of the composition = 20 3. Total value 8l. 20s.

\[ \times \frac{1}{80} \]

80 \( \div \) by 3l. 2 (8) the quantity of the highest-priced ingredient.

Secondly, when the quantities are more than two in number.

These kinds of questions, as in those of alligation alternate, admit of various answers, all of them true, and are called indeterminate problems. They are best done by parcel, two at a time, as in the preceding operation.

Alligation alternate is the method of finding the quantities of ingredients or simples necessary to form a compound of a given rate or quality; and it is the converse of alligation medial.

Alligation alternate shews the due proportion of several ingredients; and counterchanges the place of such excels or differences as arise between the mean price and the extremes; ascertaining that to the greater extreme which proceeds from the lesser; and contrariwise.

The rules which obtain in alligation alternate are as follows: every greater extreme is to be linked with one lesser. If either of the extremes be single, and the other extremes plural, the single extreme is to be linked to all the rest.
If both greater and lesser extremes be not plural, they may be linked to differently that several differences may be taken and a variety of answers may be made to the question, yet all true; but if one of the extremes be single, there can be but one answer.

The numbers being linked, take the difference of each from the mean or common price; and place this difference against the number it is linked to, alternately.

Every number, linked with more than one, must have all the differences of the numbers it is linked to, set against it.

These differences resolve the question, when the price of every one of the ingredients is given without their quantities: and the demand is to mix them so as to sell a certain quantity at a mean rate.

**Example 1.** A person would mix wheat at 42. a bushel with rye at 2s. 8d. so as to sell the mixture at 3s. 6d. a bushel, how much of each must he take?

Thus:

\[
\begin{array}{c|c|c}
   & 42 & 32 \\
62 & 48 & 56 \\
\end{array}
\]

**Example 2.** A vintner would mix Malaga, at 7s. 6d. a gallon, with Canary at 6s. 9d. and white wine at 4s. 3d. so as to sell the compound at 5s. 2d. a gallon: what quantity of each must he take?

\[
\begin{array}{c|c|c}
90 & 11 & 11 Malaga, \\
62 & 81 & 11 Canary, \\
51 & 19.28 & 47 White wine. \\
\end{array}
\]

N.B. The difference between 62 and 51 is 11, which is set against 81, and also against 90: the difference between 62 and 81 is 19, placed against 51: the difference between 62 and 90 is 28, which is also set against 51. Then 11, added to 28, is 47: and therefore the quantities required are 11, 11, 47.

But, in Alligation partial, when the quantity of one, with the price of all the ingredients, is given, and the demand is to know the quantities of the other ingredients; then, the rule of three is to be used.

Say, as the difference standing against the price of the given quantity is to the given quantity, so are the several other differences to the respective quantities required.

**Example 1.** If it be desired to mix 10 bushels of wheat, at 5s. with rye at 3s. 6d. and barley at 2s. 4d. so as to sell the mixture at 4s. per bushel, how much rye and barley must be taken?

\[
\begin{array}{c|c|c|c}
   & 60 & 12 & 26 \\
48 & 42 & 12 & 12 \\
Barley, & 28 & 12 & 12 \\
\end{array}
\]

Then 25 : 10 : 12 : 4 is the required quantity of rye and barley.

**Example 2.** How much Malaga at 7s. 6d. a gallon, Sherry at 5s. white wine at 4s. 3d. must be mixed with 24 gallons of Canary at 6s. 9d. so that the whole may be sold at 6s. per gallon?

\[
\begin{array}{c|c|c|c}
   & 90 & 21 & 9 \\
72 & 81 & 18 & 9 \\
\end{array}
\]

**Or thus:**

\[
\begin{array}{c|c|c|c}
   & 90 & 21 & 9 \\
72 & 81 & 12 & 9 \\
\end{array}
\]

Then, the quantity of Canary being given, say, by the first method 21 : 24 : each difference : its respective quantity : that is:

\[
\begin{array}{c|c|c}
   & 12 & 13 \frac{1}{2} \\
\end{array}
\]

**Second Method.**

\[
\begin{array}{c|c|c|c}
   & 12 & 13 \frac{1}{2} \\
\end{array}
\]

The operation by the last method is as follows:

\[
\begin{array}{c|c|c|c}
   & 24 & 36 \\
\end{array}
\]

The operation by the last method is as follows:

\[
\begin{array}{c|c|c|c}
   & 24 & 36 \\
\end{array}
\]

The operation by the last method is as follows:

\[
\begin{array}{c|c|c|c}
   & 24 & 36 \\
\end{array}
\]

The operation by the last method is as follows:

\[
\begin{array}{c|c|c|c}
   & 24 & 36 \\
\end{array}
\]

The operation by the last method is as follows:
The rule for this kind of alligation may be otherwise expressed and applied to all the cases above enumerated, thus: Having coupled the rates as before, then for any pair of differences, take their equimultiples, or multiply them by any number at pleasure; proceed in the same manner with any other pair; and you will thus have a new set of differences with which to work.

Example 1. A grocer would mix 20 lb. of sugar at 10d. with two other sorts at 8d. and 5d. so that the mixture may be sold at 7d.; how much must he take?

**Common Method.**

\[
\begin{array}{ccc|ccc}
10 & 2 & 2 & 2 & 10 & 10 \\
8 & 1.3 & 4 & 8 & 3 & 11 \\
\hline
20 & 1 & & & & \\
\end{array}
\]

The pair of differences against 10 and 5, being 2 and 1, are multiplied by 2; and they become 4 and 2: those against 8 and 5, being 2 and 3, are multiplied by 3, and they become 6 and 9; so that 4, 6, 11, will be the new set of differences.

Then, 4 : 12 \[\times\] 6 = 8 lb. at 8d.

11 : 33 \[\times\] 11 = 36 lbs. at 5d.

**Example 2.** A farmer would mix 42 lb. of wheat at 3s. with rye at 3l. and barley at 2s. and oats at 1s. per bushel, in order to obtain a quantity of 120 bushels, to be sold at 2s. 4d. per bushel; how much of each must be taken?

<table>
<thead>
<tr>
<th>Wheat</th>
<th>Rye</th>
<th>Barley</th>
<th>Oats</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>45</td>
<td>24</td>
<td>22</td>
</tr>
</tbody>
</table>

\[
\begin{array}{ccc|ccc}
48 & 16 \times 3 & 48 \\
45 & 8 \times 5 & 40 \\
24 & 20 \times 3 & 60 \\
\hline & 168 & & & & \\
\end{array}
\]

Then 168 : 120 \[\times\] \[
\begin{array}{ccc|ccc}
48 & 34 \frac{2}{3} \text{ bushels of wheat,} \\
20 & 14 \frac{1}{3} \text{ bushels of rye,} \\
40 & 28 \frac{1}{3} \text{ bushels of barley,} \\
60 & 42 \frac{2}{3} \text{ bushels of oats.} \\
\hline & 168 & & & & \\
\end{array}
\]

But all questions of this kind are most easily and accurately solved by common algebra, which will enable us to determine their limits; as they form a sort of indeterminate problems, and admit of many, or an indefinite number of answers. For a further explanation of this rule and examples, we refer to Ward, Wallis, Malcolm, Emerson, and other writers on arithmetic and algebra.

We shall add an example, wherein both the kinds of alligation have place. Suppose a mixture of wine of 119 quarts, required to be made of wines of the following prices, 7d. 8d. 14d. and 15d. per quart; and so that the whole may be sold at 12d. per quart.

Having linked 8 to 14, and 7 to 15, and counterchanged their differences from the common price, 12d., the sum of their differences is found to be 14; by which dividing 119, the quotient is 8\(\frac{7}{29}\), or 8\(\frac{1}{2}\), or for convenience in operation \(\frac{1}{2}\).

\[
\begin{array}{ccc}
8 & 2 \\
14 & 4 \\
7 & 3 \\
15 & 5 \\
\hline
119
\end{array}
\]

**Quarts.**

\[
\begin{array}{ccc}
8 & \frac{7}{2}\times 2 = 14 & 7 \\
14 & \frac{7}{2}\times 4 = 14 & 7 \\
7 & \frac{7}{2}\times 3 = 10 & 5 \\
15 & \frac{7}{2}\times 5 = 21 & 3 \\
\hline
119
\end{array}
\]

**ALLIGATOR,** in Zoology, a name given to the American crocodile, a species of Lacerta, under which article it is described.

**ALLIGATOR Pear,** in Botany. See Laurus.

**ALLIONIA,** in Botany, so called in honour of Charles Allioni, professor of botany at Turin, a genus of the transversa monogynos class and order, of the natural order of aggregate and diffuse of Jussia; the characters of which are, that the calyx is a perianthium common to three flowers, simple, oblong, five-parted, the parts ovate, acute, permanent; and the pericarpium proper is oblong, superior; the corolla proper, one-petalled, funnel-shaped, edge quinquel, and erect; the style has seven stamens, longer than the corolla, bend to one side, anthers roundish; the pistillum is a gynoecium inferior, oblong, five-celled, longer than the stamens, stigma multifid and linear; no pericarpium; seeds solitary, oblong, five-celled and naked: the receptacle naked. Martyn enumerates two, and Gmelini three species, viz.: 1. A. villosa, with leaves heart-shaped and calyces quinquel, a native of Cumana, in South America. 2. A. incisa, with leaves obliquely ovate, and calyces triphyllous, a native of Perù, in rocks and sandy soils, introduced into the Paris garden from seeds sent by Dombey, flourishing there and perpetuating its seeds in the middle of summer. 3. A. altissima of Gmelini, with leaves lanceolate, opposite and roughish, and calyces pedicellated and solitary.

**ALLIOTH,** in Astronomy, a star in the tail of the Great Bear, whose observation is much used at sea.

It is also written alliot, and alov, and literally denotes a herse. The Arabs give this name to each of the three stars in the tail of the Great Bear, on account of their appearing like three herse, ranged for the drawing of the waggon, represented by four herse, called Charles's wagon.

**ALLIOTICUM,** from alliota, to vary, a Galenic medicament, which alters and purifies the blood, confining chiefly of the roots of dandelion, succory, fennel, and rai-

nus; with the herbs endive, common ox-eye, lettuce, for-
rel, fumitory, &c. See Alterative.

**ALLITERATION,** in Rhetoric, is a figure or decoration of language, chiefly used in poetry, and consisting in the repetition of the same letter or letters at certain intervals, whence its name is derived. This figure has been generally regarded either as trivial in itself, or as an instance of sall refinement; but for the use of it we might refer to the best authority, and it unquestionably facilitates the recitation of verse, contributes to both its sweetness and energy, serves to enforce the sentiment which it expresses, and aids the memory in retaining it. Pontanus, one of those ingenious Italians who flourished upon the revival of literature in Europe, has particularly described this figure, and furnished instances of it both from poetical and prose writers. It occurs in the repetition of the same letters, syllables, or words; and when it takes place in the first and last syllables, and even in the middle ones, it is, he says, wonderfully pleasing. The instances which he produces from Virgil are such as follow: "Seva sedans super arma." — "Tales catus Caffandra canebat." — "Infemtum infando indicio." — "Longe fale fava tonabant." — "Magno misere murmurante pontum," — "Quamque leona late liquidos." In the following instance, cited from Lucrétius, it is continued from one verce to another: —

"—Adverfo fabra feruntur
Flumine."—

Cicero (in Brut.) uses this figure: — "Nulla res magis penetrat in animos, coque fugiit, format, lectit"; and also (De Orat.) : "Quaude me facili tare, fumme foliet." For the use of this figure we may add to that of Virgil the superior authority of Homer. II. 2. 201.
Hermogenes quotes these lines as an example of the figure now described, which he calls by a Greek name, ἁρπαζοντα, parocheis, and defines to beauty in similar words, which under a different signification found the name. Aristotelie called this figure παρατεκσια, parameiosis; and the Latin rhetoricians called it Ammonitio. Gaius Cambrensis informs us that in the time of Henry 1. the English and the Welch were so attached to this verbal ornament in every highly finished composition, that nothing was by them esteemed elegantly delivered, no diction considered but as rude and rough, if it were not first amply refined with the polishing art of this figure. From this national taste may probably be derived some of our proverbial maxims, which, independently of the found, have no other merit.

Spenser and Shakspere adopted this practice. Spenser says—

"For not to have been dipt in | LothE lake
Could save the Sun of These froin to die;
But that blind bard did him immortal make
With verses, dipt in dew of Catiflie."

Thus Shakspere:

"Had my sweet Harry had but half their numbers,
This day might I, hanging on Heifer's neck,
Have talked." — Hen. IV. part 2. act 2.

Milton also followed them:

"For eloquence, the soul; song charms the sense.

P. L. ii. 556.

Again:

"Behemoth, biggest born of earth, upbeav'd
His vaunting —"  P. L. vii. 471.

Dryden employed this figure frequently, and, like Virgil, with singular simplicity and strength. E. G.

"Better to hunt in fields for health unhought,
Than see the doctor for a nauseous draught.
The wife for cure on exercise depend;
God never made his work for man to mend." — Fables.

Pope adopted the same figure, as in the following couplet:

"Eternal beauties grace the shining scene;
Fields ever fresh, and groves for ever green."

Gray, who professed to have learnt his verification from Dryden, seems also to have paid particular attention to this ornament, as in the following instances:

"Rain seize thee, ruthless King!"
"To bigborn Hoel's harp, or soft Llewelyn's lay."
"Weave the warp, and weave the woof!"
"Stamp we our vengeance deep, and ratify his doom."
"Regardless of the fearspring whirlwind's sway."
"Eyes that glow, and fangs that gria."
"Thoughts that breathe, and words that burn."
"Hawker's craft, and helm ring!" &c. &c.


ALLIUM, probably from αλους, to avoid, because some persons avoid the plant on account of its very disagreeable smell, or from αλοους, eschews, from the quickness of its growth, or from σαλιον, which signifies a head of garlic, and

GARLIC, in Botany, a genus of the Alliaria monogynia clata and order, of the natural order of Spatiacae and Aplphi-dei of Jullien: its characters are, the cally is a common path or sheath, roundish, thrumvilling, and many-flowered; the corolla consists of six oblong petals; the floral have six filaments, subulate, generally of the length of the corolla, the anthers are oblong and upright: the pellum has a germ, superior, short, bluntly three-cornered, the corners being marked with a grooved line, style stutile, stigma acute: the pericarpium is a capsule, very short, broad, three-lobed, three-valved; and the seeds are many and roundish. Professors Martin enumerates 45, Gmelin and Willdenow 53 species, distributed into several divisions. 1. Those with stem and leaves flat, and umbel capsule-bearing. 1. A. ampoloporum, great round-headed garlic; has umbel globose, flamen three-cuped, and petals with a rough keel; its stem is a foot or more in height, having leaves at the bottom, glaucons and succulent; the spathe is conical, one-leaved, and deciduous; it flowers in a clofe bar on peduncles which are about an inch in length; the flamen are somewhat longer than the corolla, which is of a pale purplish colour: this is eaten along with other pot-herbs; it communicates its flavour to the milk and butter of cows that eat it: it grows naturally in the East, in Switzerland, on the Holmes island in the mouth of the Severn, &c. is perennial, and flowers with us in July. 2. A. porrum, porrum fativum of Ray and Miller, common leek, has umbel globose, flamen three-cuped, and petals with a rough keel, root coated: it has a rather high stem, leafy at bottom, spathe shortly conical, deciduous: flowers in clofe large balls on purple peduncles in April or May: it is very like the former spice, and probably only a variety: it has perhaps been supposed that there are two sorts of leeks; but Martin has made trial of both, and found that they were the same; the difference being occasioned by sowing the seeds from old roots, and not from the feeding leeks, whereby they have degenerated, and become smaller and more narrow-leaved: this species was cultivated by Gerard in 1597, and probably at an earlier period: but its native place is not ascertained: it is highly esteemed in some places for culinary uses. 3. A. lancea, linear-leaved G. with umbel globose, flamen three-cuped, twice as long as the corolla, grows naturally in Siberia, and is called by Miller, who cultivated it in 1768, porrum ampoloprum. 4. A. Fuavolens, with umbel capitated, and flamen awl-shaped, twice as long as the corolla; grows in Austria. 5. A. deflexum, has three-cuped flamen, of the length of the corolla, leaves narrow and linear, and stalk declined. 6. A. rotundum, great round-headed G. with umbel sub-globe, flamen three-cuped, and side-flowers nodding, has the fruit and seeds of the second species or leek, and is a native of the southern parts of Europe. 7. A. Victorialis, long-rooted G. with umbel rounded, flamen lanceolate, longer than the corolla, and leaves elliptic; grows on the mountains of Switzerland, Italy, Austria, Silezia, and Savoy; cultivated in 1739 by Miller. 8. A. Sub-bifurcatum, hairy G. or Dioicordeis's Moly, with flamen awl-shaped, and lower leaves liniforte, is a native of Italy, Spain, Africa, and the Levant; was cultivated by Gerard in 1597; flowers in May. 9. A. magicum, Homer's G. or Moly, with simple flamen and bulb-bearing branches, was cultivated in 1596 by Gerard, and is preferred in gardens for the sake of variety; but it has a very strong scent. 10. A. Obligum, oblique-leaved G. with filiform flamen, thrice as long as the flower, and oblique leaves, is a native of Siberia, and cultivated here before 1768 by Miller. 11. A. Rancum, branched G. with globele umbel, flamen awl-shaped, longer, leaves linear and sub-convex, grows naturally
in Siberia, whence the seeds of this and the former fort were sent to Peterburgh, and from them the botanical garden, in which they are preserved for the sake of variety, was supplied. 12. A. Tataricum, Tartar. G. with umbel flat, flamen simple, and leaves semi-cylindrical, as native of Siberia, and introduced into Kew gardens in 1787 by Mr. Haneman. 13. A. roffum, rose G. with umbel flat topped, petals margiuate, and flamen very simple, grows naturally about Montpellier and in Piedmont, in the fields, olive-groves, and vineyards, and was cultivated in 1752 by Miller. 14. A. farctum has a globose umbel, simple flamen, linear leaves, and prickly sheaths. Gmelin.

15. A. II. with stem-leaves flat and umbel bulb-bearing. 16. A. farctum, common G. with compound bulb and three-cuped flamen, is said to be found wild in Sicily, and cultivated in 1751, or probably at a much earlier period. 17. A. Scordophyllum, Rocambole, with three-cuped flamen, crenulate leaves, and two-edged sheaths, is found wild in Sweden, Denmark, Germany, and Hungary, and cultivated here by Gerard in 1596: it has compound bulbs, but much smaller than those of garlic. The root is heart-shaped, solid, and generally flants sideway of the flalk: the leaves are rather broad and created at the edges: the flowers, which are collected into a sort of globular head, are of a pale purple colour: the stem generally rises from two to three feet in height, and produces many small bulbs at the top, that may be made use of as well as those of the root. 17. A. arenacrum, A. Scordophyllum of Flor. Dan. 2609, and G. with three-cuped flamen, columnar sheaths, awl-shaped, petals, and flowers slightly rough in the keel, distinguished from the last species by its round sheaths, and by its growing always in a sandy soil: bulbs, which are numerous, and blooms, are blue; flamen a little longer than the blossoms; leaves three or four, lower ones quickly withering, broad, edges hairy, or rather finely toothed, teeth not discernible without a glass; leaf-sheaths strongly keeled; stem two to five feet high; flowers few, on short stalks, small, purple, marked with a deeper line: it grows wild in Thuringia, Scania, Denmark, Switzerland, Italy, and in the woody and mountainous parts of the north of England, particularly about Lowther in Westmorland, Castle Howard in Yorkshire, Thorp-arch, and Hettlington-fields near York. It is perennial, and flowers in July. 18. A. cebilatum, ambolemopraefum proliferum of Lobs. t. 156. Moly montanum leucum charta, mountain G. with awl-shaped flamen, very long (acute, Smith) spathe; stem, when cultivated, four feet high; leaves a foot long, not half an inch broad, leaf-sheaths two, awl-shaped, unequal; umbel has few flowers, but many bulbs; bloom of a dull brown yellow colour, often changing to purple; the plant has but little of the garlic smell: it is found wild in Scania, Germany, Carniola, Italy, and Switzerland, and also in the rocky and mountainous parts of the north of England, near Settle in Yorkshire, in Hettlington-fields near York, and about Knareborough, on the rocks about Longhlede in Westmoreland, near Rampsay in the Isle of Thanet, and between Sandwich and Delf: it is perennial, and flowers in July.

111. A. with stem-leaves columnar, and capsule-bearing umbel. 19. A. pallescens, Moly montanum with a purple flower of Clusian, small round-headed G. with three-cuped flamen, longer than the corolla, and semi-columnar leaves, is a native of Switzerland, Italy, Germany, and Siberia, was cultivated in 1739 by Miller, and is thought by Haller not to be specifically distinct from A. decandens. 20. A. parvifolium, small-flowered G. with globose umbel, simple flamen, longer than the corolla, and awl-shaped spathe, is a native of the south of Europe, and introduced into Kew garden in 1781 by M. Thouin.

21. A. decandens, purple-headed G. with three-cuped flamen, and outer pedicels shorter, is a native of Italy and Switzerland, and cultivated in the Oxford garden in 1766: this species has two bulbs at the origin of the flals, the leaves being fulgent and channelled above, the flalk generally two or more feet in height, the flalk quadriquad, 22. A. megalanthum, multi-flowered G. of Bauhin and Rudbeck, with umbel flat-topped, mostly six-flowered, acute petals, simple flamen, and toothed leaves, grows wild in Provence, Narbonne, and Spain; brought by Saltmann, according to Culp. Bauhin, from the hills about Montpellier in 1598, and cultivated in his garden. 22. A. floreum, sulphur-coloured G. with flowers pendulous, ovate petals, and flamen longer than the corolla; thought by Gerard and Guian to be a variety of the last species; is probably the south of France, Italy, and Austria, and cultivated in 1758 by Miller. 24. A. Heracleum, with awl-shaped flamen, and pedicels marked by a dark line in the middle. Forth. Fl. Jor. Arab. p. 72: doubtful whether it be a distinct species. 25. A. fallax, pale-flowered G. with flowers pendulous, ovate; flamen simple, equaling the corolla; is a native of Italy, Spain, Montpellier, and Hungary; and introduced into the Kew garden in 1779 by Abbé Poiré. 26. A. umbelliferum, panicle G. with pedicels capillary, spread out, flamen awl-shaped, and very long spathe,joined by Gerard to the preceding, is a native of Italy, Austria, Switzerland, Carniola, Siberia, and the Levant; and introduced into the Kew garden in 1758 by Sign. Gius. Fabrioni. 27. A. siroca, a field G. of the Cassaba of Ray and Gerard, grow G. with three-cuped flamen; bulbs tapering, bowked back, often running into long hair-like points, compacted into a close head; blossom small, violet; flamen with two long bristles, projecting beyond the flowr; stem about two feet high; leaves smooth, hough, slender, and very long; umbel sheath of one leaf, broad at the base, ending in an awl-shaped point about an inch long, scored with green lines; bulbs numerous, white; and blooms few, small; there is a variety with a double head of bulbs: this species is a native of Switzerland, Germany, Italy, &c. and with us is frequent in dry pastures, communicating its rank taste to the milk and butter, and growing in old walls and among corn, chiefly in calcareous soil, near Worcester (Stokes): it is perennial, and flowers in July. 28. A. oleracea, purple striped, or streaked, field or wild G. with flamen simple, leaves, rough, (not rough, Withering) semi-columnar, narrowed underneath: the root a solid bulb, stem two or three feet high, upright or a little bent towards the top, smooth, not scored, solid; leaves hollow, bulbs numerous, egg-shaped, forming a roundish knob, between which arise several thread-shaped fruit-flals, each supporting a single flower, which is drooping, cylindrical, but somewhat bell-shaped; blossom white, green, with three dark purple streaks on each petal, or pale with purple lines; germ rather-flattened, six-angled; style slender, longer than the blossom; flamen shorter than the petals; with minute white dots, hardly visible to the naked eye, scattered over the whole plant: it is a native of Sweden, Germany, Switzerland, Italy, and Ingrin; and with us in Westmoreland, near York, near Brifton, at Fincham, Norwich, and Black Notley, Essex, and Skylight near Darlington, among corn, and about the borders of fields. It is perennial, and flowers in July. 29. A. Pallens, Pallens G. with umbel inflamed, flamen simple, equaling the corolla, and style very short; three-cornered capsule: is a native of Siberia.

IV. A. with leaves radical and flora naked. 30. A. mar- tan, porrum of Gmelin, flat-topped G. with fepe two-
edged, leaves linear, flat, and three-clefted flaminas; is a native of Siberia, and introduced into Kew garden in 1785 by Dr. W. Purcell.

31. A. officinarum, cepa officinarum of Moryson, cepa stellata of B链him, flax lot and echinulate, with scape columnar, leaves awl-shaped, umbel globose, and three-clefted flaminas: this species has a congested root confining of numerous oblong parts bound together by means of a thin delicate membranaceous coating, each of which sends forth two or three long filiform awl-shaped leaves from a flatly nearly like those of the common onion; the flower-plains issue from membranaceous sheaths, are round, nearly naked, and terminated by globular umbels of flowers, that have erect fasciate-shaped petals, of the length of the flaminas, and of a purplish colour: the roots are very purgant, have a strong but rather pleasant smell, on which account they are generally preferred to the onion for various purposes of cookery; was found by Haller in the vicinity of Haller, native, and cultivated in 1753. 32. A. fenum-cresci, Nardus-leaved onion or G. with scape two-edged, leaves linear, convex beneath, smooth, umbel roundish, and awl-shaped flaminas, joined by Haller and Scopoli to the A. anguifolium, is a native of Siberia, the Alps, Silezia, and the island of Sicily, and cultivated by Gerard in 1597. 33. A. Asenium, with columnar scape, leaves linear-lanceolated, flat, umbel flat-topped, and awl-shaped flaminas, grows naturally in the vine and olive yards of Austria. Willdenow.

34. A. odorum, sweet-scenting G. with scape nearly columnar, leaves linear, channelled, angular beneath, umbel flat-topped, is a native of the south of Europe, China, Japan, &c. 35. A. indorum, Carolina G. with scape naked, subtriangular to ovate, leaves linear, flat, keeled beneath, umbel bifid, and filiform floriferous, and simple flaminas, is a native of Carolina, introduced in 1776 by the Duches of Portland, and flowers in March and April. 36. A. angustifolium, cepa of Gmelin, angular-awl-shaped G. with scape two-edged, leaves linear-channelled, somewhat angular beneath, and flat-topped umbel, is a native of Siberia, Italy, Austria, Switzerland, and Germany, in moist places. 37. A. florum, with a three-cornered scape, linear leaves, finted with furrows beneath, falked umbel, obtuse petals and simple flaminas, is a native of the Cape of Good Hope. 38. A. nariniflo- ram, with a columnar scape, linear awl-shaped leaves, flataed, umbel, or umbel terminal inclined, pointed petals, or petals lanceolated, and simple flaminas, shorter than the corolla, is a native of the mountains in the southern parts of France. 39. A. polyanthus, with a four-cornered scape, linear obtuse leaves, and few-flowered umbel, is a native of the Alps of Piedmont. 40. A. nigra, A. multibulbofum of Jaquin and Murray, A. montifobarum of Gounan, both of which are in Gmelin's Linnaeus characterised as distinct species. Black G. with scape columnar, leaves linear, (lanceolat, Willd.) umbel hemispherical, petals erect, (patent, Willd.) spathes pointed and brand, (flaminas simple, Willd.) is a native of Provence, Italy, Austria, and the neighbourhood of Algiers, and cultivated in 1759 by Miller. 41. A. Canadianum, Canada tree onion, with scape columnar, leaves linear, and head bulb-bearing, is a native of North America; this species has a perennial root; smooth, flat, straight leaves, six or seven inches in length; stem cylindrical, smooth, nearly naked, hardly longer than the leaves; spathes ovate, sharpish, and pointed, flowers few and white, petals oval, the flaminas simple, nearly of the length of the corolla, having brownish red anthers. 42. A. urfum, A. sylvestre latifolium of Ray, broad-leaved G. or Ramilions, with scape three-sided, (semi-cylindrical, Smith) leaves lanceolated, petiolate, and flat-topped umbel, flowers large, numerous, and white; is a native of Sweden, Denmark, Germany, Switzerland, and Italy, in woods and moist shady places, and with us in England it is frequent in such situations. It is perennial, and flowers in May and June; the smell and taste, according to Haller and Scopoli, are very acrid: Dr. Smith says, that the plant has a strong smell of garlic, and that it affords to sheep and cattle a pasture not disagreeable; the milk is of coube nauseous and flatulent; and other plants near it do not flourish. 43. A. Chlinaum, Moly minus of Chufins, with columnar scape, linear, flat, ciliated leaves, few-flowered umbel, and obverted cone petals, a native of the southern parts of Europe. 44. A. tricafeum, three-cornered Moly, Moly of Parkinson and Ray, with scape and leaves three-sided, and fimple flaminas, is a native of Italy, and Spain about Narbonne, and cultivated in 1768 by Miller. 45. A. cepa, cepa of Miller and B链him, common onion, with scape swelling out below, and longer than the columnar leaves, is well known by its filiform leaves and swelling bulks: it differs from the garlic only in having a swelling pyriform bulk, that is considerably larger in the middle than at the extremities: the Latin name cepa, says Mr. Martyn, is derived from ceput, a head, on account of the form of its bulb, and for the same reason the Greeks called it karpos. Others derive it from γεώς xolice νησιον, or from γεώς and xolice for γεώς. The English and French name are deduced from the Latin unus, because the bulb never throws out any off-lets: the varieties of the common onion are, the Straffourgh, or common oval; the Spanish, silver skinned and red skinned; the Portugal great oval onion; and the Tripoli: all these vary from seeds, and there are several intermediate differences not worth enumerating. 46. A. Melo, yellow Moly, with scape sub-cylindrical, leaves lanceolate, effusive, and umbel level-topped, is a native of Hungary, on Monte Baldo, about Montpellier, and on the Pyrenees, and cultivated in 1604 by Edward Lord Zouch: it was formerly preferred in gardens for the sake of variety, but most persons have rooted it out on account of its very strong garlic taint. 47. A. tricoccus, three-seeded G. with scape naked, semi-columnar, leaves lanceolate-oblong, flat, smooth, umbel globular, and seeds solitary, is a native of North America, and introduced in 1770 by Mr. W. Young. 48. A. fishtomum, Welch onion, or ciboule, with scape equaling the columnar swelling leaves, is perennial, and does not form bulbs like the common onion: it was cultivated in 1629: the A. italicum of Pallus, a native of Sibera, is of a smaller size, and a variety of this species: in Gmelin's Linnaeus it is made a distinct species. 49. A. fuchnopraefum, cives or chives, or G. with scape equaling the columnar awl-diform leaves, is a native of Italy, Switzerland, Sweden, and Sibera: where a variety of this plant has been found and figured by Gmelin, in which the leaves are reflected, whereas in the common sort they are strait: it has been found with us very rarely in meadows and pastures, near Fast-castle on the borders of Berwicke, in Argyleshire, in Wiltshire, and near Kirby Moor-side, Yorkshire, and Carnmil Fell, in a small rivulet called Chivey Syke. This is a very small plant when compared with the former, the items naked and fideon exceeding five or six inches in length, the roots producing little or no bulbs, and the leaves hollow and awl-shaped: it has a very strong smell. 50. A. Strutum, Siberian G. A. fuch- nopraefum. Linn. spec. 14. Murray. Gotting. Com. 1753. t. 4. 4: Cepa palustria altiformis of Banch. and cepa alpina palustris tumuloida of Tournefort; with scape columnar, leaves semi-cylindrical, flaminas awl-shaped, petals lanceolate acute, is found in Siberia and the mountains of Silezia, and was introduced into the Kew garden in 1777 by Chevallier Murray. 51. A. felterianum, with a columnar scape, semi-cylindrical
feni-cylindric leaves, dense umbels, and subulated flaments longer than the corolla, is a native of Siberia, near the river Jenica. 52. A. capitata, with columnar flcape, capillaceous leaves, few-flowered umbel, and petals lanceolate acute. 53. A. tenififlora, slender-leaved G. with flcape columnar, empty; leaves awl-shaped, filiform; and heads loose and few-flowered (Gmelin), or columnar flcape; leaves linear, awl-shaped; umbel few-flowered, and petals roundish-ovate obtuse (Wildenow); is a native of Siberia: it is much eaten by the field-mice, and they lay up the roots for their winter food: the flaments in this and the preceding are shorter than the corolla. 54. A. Chama-Moly, ballard G. with flcape fearfully any, naked, capililes drooping, leaves flat ciliate, is a native of Italy and Spain, and flowers in January. 55. A. gracile, Jamaica G. with flcape naked, columnar, very long, leaves linear, channelled, flaments awl-shaped, connate at the base, is a native of Jamaica, was introduced in 1787 by Hinton East, Esq. and flowers in February. 56. A. Neapolitanum, Naples G. with flcape naked anepicycle, leaves lanceolate channelled, umbel scattered, is cultivated in the gardens near Naples, begins to grow spontaneously about the city, and flowers in March. A. orientalis, with flcape columnar, umbel bearing and few-flowered, and leaves awl-shaped and flat. Walt. Flor. Carol. p. 121. Gmelin’s Linnaeus. Martyn’s Miller. Wildenow’s Linnaeus. Smith’s Flor. Brit. vol. i. p. 355. Withering’s Bot. Arr. vol. ii. p. 332.

Allium, in Gardening, is applied to garlic, onion, and leek. Of the fist or garlic kind of plants, though there are a great number of species only few are valuable either for use or ornament in the garden. The kinds necessary to be taken notice of in this view are: 1st. The sativum or common garlic; 2d. Schoenoprasium or rocambole, which are official or culinary plants. 3d. Moly or common yellow moly. 4th. Subflorium or hairy white moly. 5th. Sphaerocephalon or spherical headed purple moly. 6th. Rosum or rose-coloured Montpellier garlic. 7th. Flavum or straw-coloured pendulous moly. 8th. Magicum or great purple moly. 9th. Victoriale or elliptical garlic. 10th. Descendent or oval purple-headed garlic: which are all of the flowering kind.

These different species are of the bulbous-rooted tribe, some having large bulbs, others not bigger than peas; they are perennial in root, but annual in leaf and flalk; they are all hardy plants, proper in almost any exposure and soil in the garden, and in general are very productive, but most of the foarts have a strong scent like the common garlic.

The common garlic has a large round white bulbous root, of an irregular form, with numerous fibres at the bottom, composed of many smaller bulbs denominated cloves, which are included in a common membranous covering; each of which being planted, grows, and in one season attains the size and structure of the parent bulb: the leaves are cauliante, or form a kind of flalk, which feldom spindles, except when the same roots remain in the ground two or three years, when they run up and bear a flower and small bulbs at the top. It deserves to be cultivated in the garden for the sake of its root, which is in great estimation for culinary and other domestic purposes. Indeed, the roots, as well as all the other parts of the plant, have a very acid taste, with an highly offensive smell, which has rendered its cultivation in gardens lfs desirable. It is a hardy plant, capable of growing in most sorts of soils and situations, and readily propagated either by roots or seeds.

Rocambole has very small compound bulbs, which grow in clusters; the flalk generally spindling two or three feet high, with many bulbs at its summit, which, as well as the root bulbs, are useful for the same purposes as garlic, though much inferior.

The latter or the flowery kinds have the flower-flaments rising immediately from the root, growing erect and attaining different heights, from twelve to thirty inches; in some the leaves are radical, in others cauline, or elevated with the flalk, some are broad like those of a tulip, others long and narrow like a daffodil, and some taper and rush-like; but in all the sorts the flaments are terminated by a sort of flower, from which is protruded an aggregate of many small flowers forming a kind of umbel. The flowers: singly are composed of six petals, which, though separately small, from many being collected into large heads, are very conspicuous. The allium moly, sativum, fubflorium, sphaerocephalon, rosum, and flavum, generally grow from twelve to fifteen or eighteen inches in height, and their umbels often continue in bloom for the space of a month or five weeks. But the magicum, victoriale and descendent, rise about a yard in height, producing large highly ornamented umbels. They mostly flower in May, June, and July, ripen plenty of seed, and many small bulbs on the flalk and umbel in several of them.

Method of propagation. In all the sorts it may be effected with the utmost facility by off-sents from the root, and in many of them by seed and the small bulbs contained on the flalk.

Common garlic is constantly propagated by the small bulbs that constitute the main root, which may be readily divided into a great number of separate cloves; these are to be planted in the spring, in beds four feet wide, a little raised in rows lengthways, at from six to nine inches distance from each other, and fix inches in every row, and two or three miles deep. The planting may be performed either by means of a blunt dibble or by drawing drills, and placing the cloves in them, afterwards covering them with the earth. When planted in this way they mostly shoot up their leaves in a month or six weeks, only requiring occasional small hoeing afterwards to kill the weeds that may arise.

About the end of July or beginning of August, the bulbs are generally full grown, as is evident from the yellow appearance and withering of the leaves; they must be then taken up, cleaned and dried in the sun, and afterwards tied or plaited in bunches to be hung up and preserved for use.

Rocambole may be propagated either by the off-sents of its roots, or by the cloves produced on the top of the flalks, which may be planted in Spring or Autumn; but in the Autumn planting, as about October or November, they generally grow considerably larger than when planted in the Spring season. The seeds are to be planted in the manner directed for garlic, and are commonly fit for use about July or August, according as they have been put in early or late. But it may be observed that the roots never acquire any very large fize.

The different flowering kinds propagate very rapidly by off-sents, which may be separated any time after the decay of the flower, taking only such as are large and fine, and planting them at once in the borders where they flower the following Summer.

The propagation by seed is best accomplished in a shady border in Spring, the plants being fit to transplant in such cases in the Autumn.

Of the second division, or the onion kind, the characters, &c. of which are the same as those of garlic, the species are these, 1st. Cepa, or common onion, the best garden varieties of which are the Stratburgh or common round onion, the oval long-keeping common onion, the Spanish large flat onion,
onion, the Spanish silver-skinned onion, the Spanish reddish-skinned onion, and the Portugal great roundish oval onion. 3d. Fischophenum or the Ciboule or Welsh onion. 3d. Schoenoprasum, raves or chives. 4. Afalocionum, echalot or shallot. 5. Carduens, or Canada-tree onion. All the first species and varieties have large bulbous roots, and the plants are biennial, or being sown in the Spring arrive at perfection in the root the same year, and next year shoot up into stalk, flower, and ripen feed, when the stalks quickly die and the individuals are annulated. But the second and third species never form any bulbs at bottom; they are, however, hardy and perennial, and may be continued many years by the roots according to the directions given below for them. And the fourth and fifth species are bulbous-rooted perennials, multiplying greatly by offsets, as is evident from their culture.

The method of propagation and culture in the onion kind. Common onion. Among the several varieties of the common onion, the Stralburgh is probably the best for general culture, having a hardstone bulb, mostly assuming a roundish oval shape. It is of firm growth, and generally keeps well for winter use. The Spanish onions are large and flat; the first is, however, of the mildest flavour; but all the varieties for the most part afford profitable crops, and none excel them for culinary purposes; but they seldom keep so well after Christmas as the Stralburgh or oval foot of onion. The Portugal onion is a very large hardstone bulb, of a roundish oval shape, though it rarely attains the size here, as in that climate, as is obvious from those annually imported from that kingdom. If, however, seeds sowed in Portugal be sown here, the bulbs will arrive at a much larger size than from such as are sowed in this country, especially where preferred two or three years successively, in which cases they are often so far degenerated, that the bulbs become flat, and not larger than the common onions. The mode of transplanting them at an early period, which is adopted in that country, may also have much effect in rendering the bulbs so large. From this foot of onion being very mild, it is much esteemed for sauces and other culinary uses.

All these kinds are propagated by seed sown annually; which for the general crop should always be performed from about the beginning of March until the latter end of March, though in cold wet sloughy soils it may be proper to defer sowing entirely until towards the middle of the latter of these months. But in cafes of omission in sowing at the times above recommended, it may be performed with tolerable success in the beginning or any time before the middle of April, but the crops of the February or March sowing always bulb more freely and acquire a much larger growth than those sown at later periods.

The most proper situation for crops of this kind is an open exposure, and where the soil is moderately light and rich in vegetable matter. Thus spots of the best mellow ground in the garden should always be chosen, with the addition, if possible, of a good coat of well rotten dung, dug well in, but not too deep, the surface being kept level, and while it is fresh flirled, well raked, and the feed sown, a point which is of importance to be attended to. The sowing when the surface is so wet or moist as to clog to the feet or rake in preparing it, should not however be performed.

The proper quantity of seed is in general about an ounce to every rod or pole of ground; but where it is not required, to have them thick for cuttings, two ounces for three rods may be sufficient. Great care should be taken to procure fresh feed, as but very little of that which is kept more than one year will vegetate.

The feed may either be sown over the whole of the piece or plot of ground, or it may first be divided into beds of four or five feet in width, allowing foot-wide alleys between them. In sowing, the feed should be put in with a regular spreading cast, and the surface, when very light, immediately trodden over evenly upon the feed; afterwards, where sown in beds, the alleys may be pared an inch or two deep and the earth cast over them, proceeding directly to rake in the feed regularly with an even hand, trimming off all the stones, roots, &c. See Sowing Seeds.

The method of sowing them in beds is the most eligible, where it is designed to draw or pull the young onions from time to time for market or family use; as, in such cafes, a person can stand in the alleys without treading upon the beds, which not only renders the surface hard, so as to injure the crop, but highly destractive, by trampling upon the plants themselves. It is likewise very convenient to stand in the alleys, in order to weed, thin, or hoe the crop as occasion may require. Although it is a common practice in the general culture of onions to sow them thick, in order to allow for drawing or drawing out the superabundant plants, by degrees as they are wanted; it would no doubt be a better mode to sow a piece particularly for general culling, exclusive of the main crop; because by daily thinning out the superfluous plants there is no avoiding treading upon, disturbing and loosening the remaining ones, by which they become planted in their growth, and by no means so fine. There is also another very common but injudicious practice, which is that of mixing other crops such as leek, lettuce, radish, carrot, &c. with these crops. It is productive of confusion, as well as obstruction to the chief crop, without producing any great advantage; nothing should therefore be admitted, except a very thin sprinkling of cobs lettuce in some cafes. In about fifteen or twenty days after the feed is sown the plants generally appear, and in a month or six weeks after that, in May and the beginning of June, they will be three or four inches high; when they should be well cleaned from weeds, and the main crop thinned to three or four inches distance. The weeding and thinning should be begun in due time, before the weeds branch and spread much, which may either be performed by the hand or small hoeing; the latter is the most expeditious method, as by it one man may do as much as three, and it is also the most beneficial to the plants; as by flirring the ground about them with the hoe, it greatly forwards their growth, as is mostly seen in a few days after the operation. This mode, however, is more particularly eligible for the larger principal crops, for which a good sharp one and blade about two inches, or not more than two and a half broad, is the best, taking the opportunity of dry weather for performing the business, carefully and carefully cutting up all weeds. Where the onions stand too close they should be cut out in a regular thinning order to about three inches distance; or in such crops as are not wanted for occasional cutting, they may be hoed out at once to about four or five inches, having regard to leave the strongest plants, as much as possible, for the continuing crops.

In the course of two or three weeks or something more, it will generally be proper to run over them again in the same manner, in order to cut up all advancing weeds, and any superabundant plants that may have escaped in the first hoeing; after this they seldom require any further culture, than that of pulling out such casual straggling weeds as may rife.

But where the crops are small, or where they are required for thinning or pullling by degrees, for use in their young green state and in small bulbs, the weeding and requisite thinning where they are in clusters, may generally be bell performed by
by the hand. In the advanced growth of the crop, when the superabundant plants are occasionally thinned out for use, as wanted, they should be drawn somewhat regular, so as to leave a sufficiency of the strongest plants remaining at moderate distances for a full crop to attain their full growth in large bulbs.

It is highly necessary to continue to keep the different crops very clear from hurtful weeds in their advancing growth during the months of May, June, and July, which being their principal growing feasons, if they are not kept free from weeds, and sufficiently thinned to proper distances in due time, they draw one another up, weak and slender, which much retards their bulbing. About the middle or latter end of June the continuing crops begin swelling a little at bottom in their bulbing order, but more fully in July; and in August the bulbs arrive to full growth, and are proper for taking wholly up. Towards the middle of August the crops in general should therefore be examined, and when the necks shrink and pull, and the leaves wither, it may be concluded that the bulbs are arrived at maturity, and have done growing.

They should then be pulled up, cleaned, dried, and hoed for use; this being done in dry weather on a piece of ground hoed, raked, and cleaned, in order to spread them on as they are pulled up, to dry and harden. They should lie in this way a week or a fortnight, being turned every day or two, when, if the weather proves dry, they will be duly prepared for keeping; the first opportunity should then be taken to houfe them. The bulbs must be first divested of all adhering earth, loose fins, and the groffest parts of the leaves and neck, rejecting all infectious and bruised ones, and then they may be carried into any dry upper room, out of the damp, spreading them on the floor as thinly as convenient. The closer the room is kept the better, but care must be taken to turn them over once in three weeks, and to clear out such as have any tendency to infection.

As in the culture of onions it frequently happens, that through badness of seed many are disappoointed of a crop, by waiting in expectation of the plants rising till it has been too late to sow again; in such cases recourse may be had to transplantation from other gardens, as a neighbouring one, where there are superfluous crops, or a bed or such part of one as is necessary may be purchased from a market gardener. This business should be done in May or early in June, and if possible in moist weather; having a spot of well-dung ground prepared, take up the plants with good roots, and plant them in rows six inches distant, and four inches asunder in each row, inferring the roots but moderately into the ground, for if planted too deep, they do not bulb well; giving them a good watering as soon as transplanted. By repeating the waterings occasionally for a week or fortnight, the plants will generally grow freely, and form tolerably handsome bulbs.

Onions for pickling are in great request in many places: such as are proper for this purpose should not be bigger than common round buttons, therefore in order to procure them in due quantity, some seed should be sown late, in a spot of light poor land; about the middle of April is probably the best time. It should be sown moderately thick, the plants requiring little thinning, except where they rise in very thick clusters. They bulb in June and July, and are generally fit to take up in August. In the Spring many of the keeping onions will unavoidably grow as they lie in the house; these may be planted out in rows, at six inches distance, and will serve to draw by way of callations.

**The Autumn or Michaelmas crop,** is generally sown in August, and the plants ripe before Michaelmas, and the Winter, some to be drawn occasionally for use in that season, but principally intended for Spring use, to be drawn up young for fallads, &c. and likewise where the Stradbally or any other variety of the common onion are sown, they, if permitted to stand, bulb to a tolerable size in June, and supply the kitchen or market as headed onions, till some of the Spring crop are bulbed.

But as the common onion is liable to be cut off in severe winters, it is always necessary to sow at the same time some beds of Welsh onions, which bid defiance to the most rigorous Winter frosts. August is the best season for sowing these crops; for if sown sooner they are not only apt to get too forward in growth before Winter, but to run up for seed earlier in the Spring; and therefore the proper time to sow the main crop is the first or second week of that month, or the second week for a late standing one, sowing them in beds four feet wide, with twelve inch alleys between; sow and rake in the seed as directed in the Spring crop, only let a much larger quantity be sown in this case. The plants generally appear in a fortnight, and numerous weeds, to which early attention must be had to clear them out by hand before they begin to spread; but the plants of this crop are not now to be thinned. But in November and December if they stand very thick, some of the largest may be occasionally thinned out for various uses.

**Sowing Shallots.** February is the proper time to plant onions in this view, though this is often done in October by those that have great quantities for sale. For this purpose, make choice of a due quantity of the largest and handsomest bulbs, rejecting all blemished ones, and such as have already made any effort to grow, and having made choice of a spot of ground well exposed to the sun, which being dug, proceed to plant the onions; strain a line, and with a hoe or spade open three drills, twelve inches asunder, and fix deep, place the bulbs therein nine inches distant, and rake the earth over them; measure off two feet for an alley, and plant three more rows as above, and in that manner proceed to the end; the wide space of two feet is by way of alley to go between, to hoe and clear off weeds as well as to flake and support the flasks of the plants when necessary. In June the flower-stalks will be shot to their full height, and the flower heads will be formed at top, to secure which, in erect position, drive some stout flake in the ground along each row, at two yards distance, and from flake to flake fallen double lines of packethread; and if these are tied together in the interval, between the items of the plants, it will effectually secure them. About the latter end of August the seed will be ripe, which is known by the capsules opening, and the black colour of the seed; the heads should be cut in a dry day and spread upon cloths in the sun, care being taken to remove them under cover in a safe of wet and at night; and when perfectly dry, beat or rub out the seed, cleaning it from the rubbish, and putting it up in bags for use.

As it is of the utmost importance to have good fresh seed, some to try its goodness, before they venture their general crop, sow a little in a pot, and place it in a moderate hotbed or near a fire; a more expeditious method however is to tie about a thimble full of the seed, loosely in a piece of linen rag, and put it into a vessel of hot water, suspended by a thread; in ten to fifteen or twenty minutes, pull it out, and if the seeds are good, they will, in that time, have germinated or sprouted, perhaps to the extent of a quarter of an inch in length.
ALL

As leek-feed is similar in its nature it may be tried by the
same means.

Cicalea or Welsh onion. This is a perennial plant, which
never forms any bulb at bottom; therefore deserves to be
cultivated only to be drawn as young green onions for fallads,
&c. in Spring; but on account of its strong taste, it is generally
inferior to those of the common onion. From the plants
being so extremely hardy as to survive the severest Winter, in
which, though their blades are cut off, the roots remain sound
and shoot forth with great vigour early in Sping, furnishing
useful supplies till May, when they generally run to seed;
from this singular habit they may be cultivated more or
less as a winter-standing crop, with advantage, for Spring
use.

They are perennial in root which increas by off-fets into
great clutters, but not to be propagated thereby for general
use, but by seed, the name as the former sorts of onion.
The best season for sowing them is August, in the manner
of the Autumn onion crops.

The plants mostly appear in twelve or fifteen days after
being sown, and towards Michaelmas should be carefully
hand-weeded. It is a peculiarity in this species of onion to
lose their tops in November or December, and remain
divested thereof till towards Candlemas, when the roots shoot
forth again; at that period it is proper to dig the alleys, and
spread about an inch depth of the earth evenly over the
surface of the beds, by which vigour is given to the roots,
and the plants are made to rise strong, and at the same time
the part within the earth blanched white and rendered more
tender and mild for eating, as well as more agreeable. Where
the sowing of a Michaelmas crop has been omitted, some
have grown towards the end of January, when the
plants will rise in February or March, and being hardy, con-
tinue growing, and be fit for drawing in the early Spring.
In order to save plenty of seed of this species of onion, it is
necessary to retain some plants for seeds. In the end of
March a parcel of strong young plants may be put out nine
inches distant, which produce feed in Augst. If the roots
be let remain in the following years they produce treble
the quantity; but as they increas into great clutters, the seeds
should be removed and parted every second or third
year.

Cives or Chinese. This is the smallest of all the onion kind,
ripening but a few inches high; but its roots are perennial, and
increas considerably into clutters, from which large tufts of
flender awl-shaped leaves issue, which are the principal part
used, the roots never forming any bulb, at least not bigger
than small peas. This is a hardy plant which merits a place
in every garden; its clutters of leaves rise early in Spring,
and are useful both in fallads and for culinary purporses, in
default of onions. The method of gathering it is to cut
the leaves off near the ground, by which a rich supply is
soon produced from the bottom. For occasionally the plants
in clutters may be slipped quite to the root in separate little
plants, resembling young onions, and used as substitutes for
them. It is easily increasd by dividing the roots in Spring,
and planting eight or ten of them together in holes at six
inches distance; in this way by Autumn they will multiply
into bunches of a large size.

Escolat or Shallot. This is a species of onion which is
bulbous-rooted, and which increas greatly by off-fets, the
largest of which are the proper parts of the plant for use.
The bulbs are oblong, irregular, and seldom grow large; as
they generally increas into clutters they do not swell like
roots that grow singly. From the roots are produced many
long, narrow, firm leaves in the Spring, and which wither
in July or August, when the roots are full grown; they are
then taken up, made dry and hauled, when they keep
in good perfection till the following Spring.

In the propagation of this plant the smaller roots or off-
fets are the best; these may be planted out in Autumn or
early in Spring: the end of October, or beginning of Nov-
ember, for the Autumn planting; and February and March
for that of the Spring, but not later than the beginning of
April. The Spring is the most general season of planting
them, but when planted in Autumn, in a dry light soil, they
tend to grow larger, and sooner attain full growth the following
Season; they are to be planted in beds four feet wide, in
rows length-ways, the beds six inches asunder; each off-let
infected singly, either by means of a dibble or placed in
drills not more than two or three inches deep; and the
distance as above in each row. They shoot up in leaves in
March or April, and the roots increas in growth till July or
August. The only culture which they require is that of
keeping them clean from weeds, by occasional hand weeding
and hoeing. Towards the end of July or beginning of August
the bulbs will have attained their full growth, as is seen by
the withering of the leaves. They should then be taken up in
a dry day, and spread in the sun to harden; the largest,
clean, and hauled for use, and the smaller off-fets reserved
for propagation.

As shallots are sometimes required early in the Summer
for immediate use in such cases as they have formed small bulbs towards the latter end of May or in June, a few may occasionally be taken up for prefer-
tent supply; permitting a principal crop to remain in order to
attain their full growth.

Cauda or Tree Onion. This deserves to be cultivated
both as a curiosity in producing the onion at top of the
stalk; and for the use of the onions, especially for pickling,
in which they are excellent and superior in flavour to the
common onion. It is perennial, and propagated by planting
the bulbs in Spring or Autumn, either the root bulbs, or
those produced on the top of the stalk, being planted in a
bed or beds of any good earth, in rows a foot asunder, six
inches distance in each row, and two or three inches deep;
they shoot up leaves and stalks in the Spring and Summer,
and produce the bulbs for use in July or August; and the
root-bulb remaining, furnish a production of top bulbs,
annually in that season; the root-bulb increasing by off-
fets, may be taken up occasionally at the time the stem
decays, in Autumn; or once in two or three years, in
order to separate the off-fets and replant them when ne-
cessary.

The leek is the third division of the genus, the general
characters of which are the same as those before described,
and the species and varieties are the Porrum or common leek;
which may be said to be an annual-biennial plant, for although
the root often survives, after perfecting seeds, yet the plants
always attain perfection the same year they are sown, and
the year afterwards run up to stalk and become unfit for use.
The seed-stalk of this plant does not belong like that of the
onion.

The best of the varieties of this plant for general culture,
is the broad-leaved or London leek, which attains a large
growth, the neck acquiring a thick substance, in length from
six to nine or ten inches, dividing upwards into many large,
long, thick leaves, arranging themselves in somewhat a fan-
shape.

The narrow-leaved leek runs up with a long thin neck,
and narrow thin straggling leaves, which, as a degenerate
variety, does not deserve culture; and the striped-leaved kind
is retained merely for variety, which may be continued by
 suckers rising from the old roots.

Propagation, Culture, &c. The common leek is raised
annually from seed sown in the Spring; the proper time,
for the general crop for Autumn and Winter use, is the same
as that recommended for the onion, as from the twentieth
of February to the end of March; but for later crops to
stand for Spring use, any time in April may answer, or for
a small crop to stand as late as June, in the following Spring as
possible, without running to seed, the beginning of May.

It is a common practice from the notion of making the
most of the ground, to sow leeks along with the crops of
onions; which should not by any means be recommended,
as experience has shown it to be considerably the bell culture
to keep them separate. It is often practiced by the market
gardener, when intending to pull out the onions from
the time to time for market; so that a daily thinning, they are
mostly all cleared off by the end of July; and those being
gone, the same ground remains occupied by a crop of leeks.

This method cannot be practiced to equal advantage in the
main crops of onions that are to stand to grow to full size
for keeping. The bell culture, therefore, for the general
leek crops of leeks, is to sow them pretty thick in a spot by
themselves to be afterwards transplanted, either wholly or
the greater part thinned out regularly and planted; the
others being left at good distances for full growth, and the
sowing situation, foil, and method of sowing are to be adopted
as directed for the onion. In June, July, and August, the
plants will be of a proper size for transplanting; in doing
which make choice of an open spot of the bell ground; if
thinned it will be of much advantage, digging in the dung
one spade deep; then drawing a parcel of the largest leeks,
and trimming their tops and the extreme parts of their root-
fibres, proceed to plant them by line and dibber in rows,
which for the early crop should be twelve inches distant,
eight or nine inches apart in each row; and for better crops
nine inches between the rows and fix the way, putting
them three or four inches in the ground, or nearly to the
length of their necks, and watering them immediately.
The only culture they require afterwards is to be kept clear
from weeds, which may be done either by hand-weeding,
or more expeditiously by applying a sharp hoe in a dry
season.

The leeks thus cultivated are generally finer than those
that remain where found, their necks, which is the principal
excellent part, are much longer, and all the part within the
eye is finely whitened and rendered mild and tender, which
is a desirable property in this plant. However, when it is
intended to raise a crop of leeks in good perfection, to
remain where found till their full growth, the feed should be
sown much thinner; and when the plants are somewhat ad-
vanced, as in June or July, is should be regularly thinned to
about ten or twelve inches distance; those thinned out
being planted in another compartment of the garden. The
remaining plants will by this means attain a larger and thicker
growth below, with large spreading tops of thick fleshy
leaves.

This is a valuable family plant from Autumn till Spring,
for soups, broth, &c. and for boiling the neck part and top
leaves together, to use as greens, in the manner of celerowts,
&c. to eat with flesh-meat. It is in perfection from Sep-
tember till May, when it shoots up to stalk for feeding.

In order to have the seed of this plant, a quantity of the
faint plants should be transplanted in February into a shel-
tered sunny bed or under a south wall, paling hedge, or other
fence. This is mostly necessary, as the seeds ripen late in
the Autumn, and unless sowed by such situation and shelter,
frequently ripen freely in this climate. In this view it would be
of particular advantage to plant some in a row close under a
south fence, at ten or twelve inches distance, they will then
shoot up their stalks considerably in May; and in June attain
two or three feet in height, when they should be supported,
and continued in an upright growth. In July the flowers
protrude from their sheath at the summit of each stalk, and
form a large globular head; and in September the seeds
begin to ripen. After this is effected, cut the heads with
part of each stalk and tie them in small bunches, hanging
them acros in a dry airy apartment, two or three
months, when the seed will be hardened, and the capsules
readily break by threshing or rubbing, and thus discharge it
more readily from the cells in which it is lodged.

Allium, dietician and medical qualities of several species of.
The culinary uses of several species of the allium are well
known; and it is needless particularly to describe them.
They are believed by Dr. Cullen to a particular head under
the title of Alliaceae; and he considers them more as condiments
than as aliments. Of this order the leek and onion are
most commonly employed with the last intention, and
they afford a large proportion of alimentary matter. In
their boiled state, when their acrimony is exalted, they
manifest, with some sweetness, a large proportion of mu-
cilagineous matter; and even in their recent state, and espe-
cially when young, their acrimony is not so strong as to
prevent their being used among the lower classes as a con-
derable part of their food. But by those of superior rank,
who is the onion only that is taken in its young and recent
state; but hardly in larger quantity than may be regarded
as a condiment. Deprived, however, of their acrimony by
boiling or roasting, they are used by persons of every con-
dition more freely. Nevertheless it is too difficult to deprive
them entirely of all peculiar taste, that many persons, from
a particular idiosyncrasy cannot bear them even in a boiled
state. The garlic, rocambole and shallot contain also alimentary
matter; and when the garlic in certain warmer climates is
produced with less acrimony than it is with us, and of
course is much milder both in smell and taste, it is more
frequently and more largely employed as a part of diet.
As condiments, those of the milder kind, more especially
when deprived of their acrimony, are very safe and
proper; and even the more acrid, as garlic, which is almost
solely employed as a condiment, serves, if the odour and
taste can be admitted, to stimulate the stomach very powerfully,
and to promote digestion. As promoting perspiration and
urine, all these vegetables are properly joined with our ani-
mal food, and may also be justly reckoned among the anti-
corbutics. In the continent nations, amongst the Jews, ancient
and modern, and also in Russia, Hungary, Spain, and
France, the several species above enumerated, have been freely
used both as aliments and condiments. In Egypt, onions
have been from time immemorial a part of their constant
food; they are sweet and hot, and used in their soup, and
roasted with their meat, so as to make a dish, called by the
Turks kebab, of which they are very fond. Onion, and
particularly garlic, which is more powerful in its effects,
by stimulating the stomach favour digestion; and as this
stimulus is more readily and quickly diffused through the
whole system than that of almost any other known sub-
fstance, they may be considered as useful condiments, with
the food of phlegmatic people, or those whose circulation is
languid, and secretions interrupted; but for those who are
subject to inflammatory complaints, or where great irrita-
bility prevails, these roots, especially in their acid state,
The medical virtues of _Allium sativum_ or garlic, are very various. The whole of the plant pollexes similar qualities; but the root, which has a strong pungent colour and a very acid taste, is the only part employed in medicine. These qualities depend upon a very volatile part, which is readily dissipated by drying, if the roots be bruised and the interior parts be exposed to the air, or by boiling in water. On drying, says Dr. Lewis, the root loses almost nine parts in 15 of its weight, without losing much of its taste or smell; and hence, he says, five grains dried may be considered as equivalent to 15 grains of the fresh root. Dr. Cullen, however, thinks that the virtue of garlic is diminished by drying, and that it is possible by these means to dissipate it entirely; and he is of opinion, that Dr. Lewis improperly proposes the dried garlic to be used in any proportion as a medicine. The volatile sublimation of this root is at least in part an efficial oil, which exudes along with the dew of boiling water; and therefore the garlic should never be boiled either with vinegar or with watery liquors. This oil, which is of a pale yellowish colour, and of a thick oily consistence, may be obtained by distillation; and like that of many of the balsamiferous plants, it is fluid in water. The virtues of the root may more readily and more perfectly be extracted by rarified spirit of wine, digested upon it when dry, than by either water or vinegar and with this menstruum the active matter of the garlic does not easily exhale; and nearly the whole of its virtue remains in the infusiated extract. Both the fresh and dry root give out their virtue to water by warm infusion. A quart of water poured boiling but upon a pound of the fresh root, cut in slices, and suffered to stand upon it in a close vessel for 12 hours, forms an infusion, which, with a proper quantity of sugar, was the syrump of garlic of the shops; and the oxymel of garlic was prepared by infusing an ounce and a half of the fresh root in half a pint of vinegar, and dissolving in the strained liquor, by the heat of a water-bath, 10 ounces of clarified honey; and in order to cover the ill-smell of the garlic, caraway and fennel seeds bruised, of each two drams, were boiled in the vinegar before the garlic was put into it. But the syrump and oxymel are now expunged from the British Pharmacopoeias. The odour of garlic is extremely penetrating and diffusive; inform that when the root is taken into the stomach, the alliaceous scent impregnates the whole system, and is discoverable in the various excretions, as in the urine, perpiration and milk. According to Bennet the discharge of iflasses and ulcers becomes imbued with this odour very soon after it is taken; and Haller says, that on being applied to the feet, the alliaceous tafe has been perceived in the mouth. Garlic has been long in estimation as an expectorant in pustulous and inflamatory affections, and other pulmonary affections, attended with inflammation. Dioscorides mentions its use in moderate coughs. Celsus employed it mixed with honey in these complaints. Rosellini recommends it to be boiled in milk, and a pint to be taken night and morning. Dr. Cullen allows what has been asserted, that even in its external application to the soles of the feet, it has been useful in these diseases. Its utility as a diuretic in dropsies is attested by unquestionable authorities. Dr. Sydenham found some dropsies cured by garlic alone; and as a warm strengtherner it has been serviceable not only in the beginning of dropsies, for preventing a new accumulation of water after evacuation. Dr. Cullen says, there can be no doubt of the A. sativum being a remedy for the scurvy. Dr. Lind also commends it both as a preservative and a cure for this complaint. Its schiurige power has been experienced in preventing the paroxysms of intermittents;
Bergius says, that he has seen even quartans cured by it in many instances. He recommends to begin with a single small bulb morning and evening, and one bulb to be added, till the patient takes four or five at a time. If the fever subsides, the dose is to be diminished; and it will be sufficient as the preventive of a return, to take one or two bulbs, morning and evening, for several weeks. Some have held it in great esteem as an antidote to the contagion of pesti- lential and other putrid disorders, whence it received the name of "Theriaca rusticorum;" and with a view of diminishing the plague, it is to be administered in such a quantity as to excite a copious diaphoresis. The virtues ascribed to it of obviating and relieving contagion appear to Dr. Cullen very doubtful; though he allows the probability that, in the plague, which is commonly attended with a low fever, it may have been useful. Another virtue ascribed to garlic is that of an anthelmintic; for this purpose the common people boil it in milk; and Hoffman considers it as one of the capital medicines of that class. In cale- bus disorders it is also said to have been found very beneficial, not only as a diuretic, but as poising a lithotrityc power. The penetrating and diffusive activity of garlic renders its external application useful in many disorders, as a subacutant, and more especially as applied to the soles of the feet, to cause a revolution from the head and breast; and thus it was successfully practiced and recommended by Sydenham, especially in the confluent small-pox about the eighth day. When it occasions pain, as it sometimes does, this, he says, may be relieved by a calapain of bread and milk. Dr. Cullen remarks, that though when bruised and applied to the skin it produces inflammation, and frequently vellelates the part, its effects are not so permanent nor so flow in healing as those of mustard and the other siliquae; and that it is more capable of absorption, and of extending its action to remote parts. It has, therefore, been vari- ously employed externally in cases of tumors and cutane- ous disaters; and in some instances of deafness, particularly of the rheumatic kind, a clove or small bulb of this root, wrapt in gauze or muffin, and introduced into the meatus auditorius, has been found an efficacious remedy. Bergius recommends for this purpose the juice of garlic dropped in cotton. Garlic may be administered in various forms; swallowing the clove entire, after being dipped in oil, is recommended as the most effectual: or, where this cannot be done, it may be cut into pieces without bruising it, and this may be found equally beneficial, without producing any uneasiness in the fauces. On being beaten up, and formed into pills, the active parts of this medicine foun evaporate.

Several other species of allium, as the A. porrum, A. ascalonicum, A. fistulosum, and A. chenaumus, are em- ployed in diet, but hardly in medicine, as their qualities are in a less considerable degree than those that have been already mentioned. In Kamchatka the wild garlic is use- ful both in medicine and food. It is gathered by the Russions and natives, for Winter supply, and formed into a ragout with other ingredients, and is their principal remedy for the feary. Pennant in his Tour 1772, p. 175, says, that an infusion of A. urinum in brandy is esteemed a good remedy for the gravel. The young shoots of A. vinca are eaten in falladays, or boiled as pot-herbs. Lewis, Mat. Med. p. 32. 214. Cullen's Mat. Med. vol. i. p. 272.—429. vol. ii. p. 172.—178. Bergius, Mat. Med. vol. i. p. 264.—271. Murray's Appr. Med. vol. v. p. 122.—139. Woodville, Med. Bot. vol. iii. p. 470.

**Allium.** See Hyacinthus, Hypoxis, and Tradescantia.

**Allix, Peter,** in Biography, a learned divine of the church of England, and an eminent writer, was born in the year 1641, at Alnwick in France; and after receiving a liberal education, became minister of the reformed church at Romen. In this situation he acquired great reputation by his excellent writings on the subject of the Eucharist. From hence he removed to Clarenton, which was the re- port of the most distinguished protestants in France, and where he had the charge of the principal church belonging to the reformed in that country. Having now an opportunity of essentially serving the protestant cause, he preached several sermons in its defence, which were designed to counteract the attempts of the bishop of Meaux, who was one of its most able opponents. Twelve of these sermons were printed at Rotterdam in 1685, which were highly commended by Bayle, and contributed to increase the re-putation of the author. Upon the renovation of the edict of Nantes in 1685, Mr. Allix was obliged to quit France, and to seek an asylum in England. His first object was to acquire a competent knowledge of our language; and in this he succeeded to such a degree, that in 1688, he published a defence of the Christian religion, in a work, entitled "Reflections upon the Books of the Holy Scriptures, to establish the Truth of the Christian Religion," to which he prefixed a dedication to King James II. acknowledging, in very respectful terms, his personal obligations to that prince, and expressing his sympathy and concern for the distressed refugies in general. "I could wish, Sir," says he, towards the close of this dedication, "that this work, which I now present to your Majesty, might be so happy as to pass to posterity with this character of our acknowledgment; and that it might stand as a faithful record for ever, to perpetuate the memory of that lively sense of your bounty, which is imprinted on all our hearts." The author was so well received in this country, that he was soon complimented with the degree of doctor of divinity, to which his character and writings gave him a just claim; and in 1690, he was made preacher of the church of Salisbury. The time and talents of Dr. Allix were diligently employed in writing several valuable treatises in defence of the restored religion, which he vindicated both from reason and authority, from the practice of early ages, and also from the precepts of the Gospel; allaying against the church of Rome, that whilst the treated others with the opprobrious name of heretics, she had herself invented new articles of faith. From the defence of religion in general, and of the protestant cause, he proceeded to that of the doctrine of the Trinity against the Unitarians, who maintained that the notion of the di- vinity of Christ had originated with Justin Martyr. This work exhibits a great display of Greek and Hebrew litera- ture; and it was intended, not merely to refute the affir- tions of the Unitarians, but to prove, that the Trinitarian doctrine was held by the ancient Jewish church. At a time when the distinguised reputation of our author was universally acknowledged, he incurred some raillery and con- fusion, particularly on the part of Mr. Bayle, who had before expressed sentiments of the highest respect for his abilities and erudition, by a publication in which he haz- iarmed a conjecture concerning the second advent of Christ, the period of which, deduced from an erroneous explication of Scripture prophecies, he fixed to the year 1720, or, at the latest, to 1736. His character, however, for eminent talents, indefatigable affiduity, extensive liter-
tute, and various services which he had rendered to religion and the reformation, was not depreciated in the estimation of the best judges. Having protracted his useful life, and enjoyed an uncommon share of health and spirits to the 76th year of his age, he died at London, Feb. 21st, 1717; "leaving behind him the reputation of a man equally affiduous in the right discharge of all the offices of public and private life, and every way as amiable for his virtues and social qualities, as venerable for his uprightness and integrity, and famous for his various and profound learning."

Mr. Bayle highly commends the learning, candour, and abilities of Dr. Allix; and in speaking of his sermons he says, "that they contain a thousand beautiful passages, equally strong in sentiment, and delicate in their turn and expression." His works were numerous, and they were written in Latin, French, and English. Those of the first class were "A Dissertation on the final State of the Trifagrum or Doxology," 8vo. Rouen, 1674; "On the Blood of our Lord Jesus Chrift," 8vo.; "On the Life and Writings of Tertullian," 12mo. Amsterdam, 1701; "Of the authority of certain Councils," 8vo. 1680; "Anathelius's twelfth Book of Contemplations on the Six Days Work of the Creation, &c. from the Veronion and with the Notes of Andrew Dacier, with an expoytulatory Preface," &c., 4to. London, 1682; "An historical Preface, as to the Doctrine of Transubstantiation, to the Determination of Brother John Paris, Jacobin, as to the mode of our Lord's Body exiling in the Sacrament of the Altar, &c." 8vo. London, 1686; "Of the two Advents of the Messias, in as many Differences against the Jews," 12mo. London, 1701; "Nectarius's Confutation of the Pope's Authority in the Church," a translation from the Greek original, printed in 1672 in Moldavia, 8vo. London, 1702; "A Preface to Augustinus Hermanus Francke's Introduction to the Reading of the Holy Scriptures," 8vo. London, 1707, and 1710. In French, Dr. Allix published, "An Answer to a Dissertation of Anfelm on Bertram and John Scot," printed at the close of Claude's answer to Arnaud, Quevilly, 8vo. 1670; "Ratramn, or Bertram, the Priest, on the Body and Blood of our Lord," in Latin and French, 12mo. Rouen, 1672; "Twelve Sermons on several Texts," 12mo. Rotterdam, 1685; "The Maxims of a good Christian," Amsterdam, 1687; "St. Paul's Farewell to the Ephesians," 12mo. Amst. 1688; "Preparations for the Lord's Supper," 8vo. often printed at Geneva. In English we have by Dr. Allix, "Reflections upon the Books of the Holy Scripture, to prove the Truth of the Christian Religion," 2 vols. 8vo. London, 1688; "Some Remarks upon the Ecclesiastical History of the Ancient Churches of Piedmont," 4to. London, 1690; in answer to the "History of the Variations of the Prophets in Matters of Faith," by the bishop of Meaux, which was intended to facilitate the design of Lewis XIV. to oblige all his subjects to be, or seem to be, of one faith; "Refereces upon the Ecclesiastical History of the Ancient Churches of the Albigenses," 4to. London, 1692; "The Judgment of the Ancient Jewish Church, against the Unitarians in the Controversy upon the Holy Trinity, and the divinity of our Blessed Saviour," 8vo. London, 1689; "Preface and Arguments on the Psalms," in which the author disapproves of the notion of a double completion of the prophecies contained in them; "The Prophecies which Mr. Whitton applies to the times immediately following the appearance of the Messiah, considered and examined," 8vo. London, 1707; "Remarks upon some Passages of Mr. Whiston's Books, either printed or in MS." 8vo. London, 1711. Biog. Brit.

ALLOA, or ALLOWAY, in Geography, a sea-port town of Scotland, situated in the Frith of Forth, about 10 miles above Leith, and five miles eall of Stirling. The town is populous, has two market days in the week, and is remarkable for its fine cattle, the feat of the Earl of Mar, and for its adjacent coal-mines. The harbour is commodious, having a good depth of water for ships of burden, and vessels are expeditiously loaded with coals, conveyed from the pits by a waggon-way in carriages of such easy draught, that one horse may draw three waggons, each containing one ton and an half. A dry dock has lately been erected, and there is a glass-house in the town, from which any quantity of bottles may be supplied at the shortri note.

The Frith at this town frith becomes a copious and navigable river. N. lat. 56° 10'. W. long. 3° 45'. The tower and lands of Alloa were exchanged by David king of Scots in 1355, with Thomas Lord Erkine, for the lands and claret of Strathgareny, in Perthshire, and since that time the castle has been the residence of the family of Mar. The situation is beautiful, and the gardens, containing about 40 acres, were laid out under the direction of Le Natuue, and the plantation was begun in 1706. The tower of Alloa is 89 feet high, its walls are 12 feet thick, and it was built towards the close of the 13th century. The half heir of the Scots monarchy, who was nurtured here, was Henry prince of Wales; of whom some youthful relics are preserved, as is also the private signet of the unfortunate Mary, after she was obliged, by the treaty of Edinburgh, to defect from wearing the arms of England in the first quarter, the chair of James V. her son, and the festive chair of Thomas Lord Erkine, the second earl of Mar of that name, with an inscription;

"Soli deo honor et gloria."

ALLOBROGES, in Ancient Geography, the inhabitants of that part of Gallia Narbonensis, which was situated between the rivers Ifara to the south, and Rhodanu to the north, and the lacus Lemanus, comprehending a great part of the countries since known by the names of Savoy, Dauphine, and Piedmont. Polybynis, Plutarch, Dion, and Appian write their name, Allobroges, and Ptolemy and Steph. Byz. Allobrogis; but the true orthography, established by two inscriptions, is Allobrogis. Their metropolis was Vien- na. The Allobroges were inferior, neither in strength nor riches, to any of the inhabitants of Gaul. When Hannibal passed the Rhine into their country, they found two brothers contending for the crown, and took part with the elder. This people, whose country bordered on that of the Salyes, and with whom they were in amity, were dis- pelled to succour them against C. Sextius Calvinus, who had overcome Teutomaluis, their king. But after Domi- tinus had, during his consulship, fetled the country of the Salyes in peace, a work which had been happily begun by Sextius, three years before, the Allobroges, being uneasy at the settlement of the Romans in their neighbourhood, prepared to make an attack upon the Roman colony at Aquae Sextiae. Domitius, in order to prevent the Arvernians, a powerful people, from joining the Allobroges, formed an alliance with the Eedu, one of the most considerable nations in Transalpine Gaul. In consequence of this connex- ion the Arvernii commenced hostilities against the Eedu; and
and the Roman general took occasion, from this circumstance, to force a passage into the country of the Averni, whose king sent a deputation to the general, attended by a number of large dogs, and a bard or priest, who taunted the prides of his king, the people, and the ambassador. The envoy, after being received with respect by Domitian, assuming an imperious air, commanded him, in the name of his master, to forbear molesting the Allobroges, and immediately to retire from Gaul. Domitian, intimidated by this address, gave orders for his troops to march into the fruitful plains of the Cauvian, in the neighbourhood of the present Avignon. Whilst he was encamped near a village, called Vindalia, he was attacked by the Allobroges; but they were easily routed by his regular and well disciplined troops. We are told that 20,000 Gauls were killed on the spot, and 3,000 made prisoners of war. The Allobroges, after this defeat, and another victory gained by Fabius Maximus over the Averni, submitted; and so important was this event deemed at Rome, that Fabius took from this occasion the surname of Allobroges. At length the Romans made themselves masters of their whole country. Cicero, (Catil. 3.) commends the Allobroges for their fidelity; but Horace (Epod. xvi.) reproaches them, on account of their fondness for novelty:

Novique rebus insidibus Allobroges.

**ALLOCATION.** Allocatio, the admitting or allowing of an article in an account; and pausing it as such. Allocation is also an allowance made upon an account; used in the exchequer. Hence, ALLOCATIONS fauntes, a writ directed to the lord-treasurer and barons of the exchequer, upon the complaint of some accountant; commanding him to allow him such sums as he hath in execution of his office lawfully expended. Reg. Orig. p. 206.

**ALLOCATO coniuratus.** is a new writ of exquit allowed, before any other county-court holden, when the former has not been fully served, or complied with, &c.


**ALLOCATION.** See Allocation.

**ALLODIUM.** See Allodium. 

**ALLODIAL tenure of lands.** in Agriculture. A sort of free tenure still existing in some parts of Scotland, under which the tenant is not required either to pay any quit-rent, or acknowledge a superior.

**ALLODIARIUS.** the owner or proprietor of an allodium, or alodial lands; also used to denote a lord paramount of a manor.

This is otherwise written allodarius, alodarius, albarius, albour, aborius, and aldeirius.

**ALLODIUM.** or Allod, land held of a man's own right, without acknowledgment of service, or payment of any new rent to another; and this property in the highest degree; but feudum or feodum, is such land as is held of another for which service is done, or rent is paid, as an acknowledgment thereof. When the barbarous nations overran Europe, and settled in the countries which they had subdued, in the fifth and sixth centuries, the victorious troops divided the conquered lands. The portion which fell to every soldier was feigned by him as a recompense due to his valour, as a fettlement acquired by his own sword. He took possession of it as a free man in full property. He enjoyed it during his own life, and could dispose of it at pleasure, or transmit it as an inheritance to his children. Thus property in land became fixed. It was at the same time alodial; i.e. the possessor had the entire right of property and dominion; he held of no feudal or superior lord, to whom he was bound to do homage, and perform service. How it afterwards was converted into feudal possession, will appear under the articles Beneficium, Feud, and Feudal System.

In several parts of Europe this change had taken place, or alodial property had become almost entirely feudal, before the beginning of the 10th century. The former species of property seems to be so much better and more desirable than the latter, that such a change seems surprising, especially when we consider that the alodial property was frequently converted into feudal, by a voluntary deed of the possessor. The motives which led to a choice so repugnant to modern ideas concerning property have been investigated and explained, with his usual discernment and accuracy, by Montesquieu in his Spirit of Laws, lib. xxxii. c. 8. vol. ii. Those who were seized of fiefs, says this writer, (p. 431.) enjoyed very great advantages. The composition for the injuries done them was greater than that of freemen. It was a privilege belonging to the king's vassal, established by the Salic law, and by that of the Ripuarians, that whoever killed him should pay a composition of 600 sous; whereas they gave but 200 for the murder of a person free-born, if he was a Frank or Barbarian living under the Salic law, and only 100 for a Roman. Besides, when a man was summoned in court, and did not make his appearance, nor obey the judge's orders, he was appealed before the king; and if he persisted in his contumacy, he was excluded from the king's protection, and no one was allowed to entertain him, or even to give him a morsel of bread. If he was a person of an ordinary condition, his goods were confiscated; but if he was the king's vassal, they were not. The first by his contumacy was deemed sufficiently convicted of the crime, the second was not: the former for the smallest crimes was obliged to undergo the trial by boiling water; the latter was condemned to this trial only in the case of murder. Moreover, the king's vassals could not be compelled to swear in court against another vassal. These privileges augmented daily, and the capitivity of Charlemagne does this honour to the king's vassals, that they shall not be obliged to swear in person, but only by the mouth of their own vassals. When a person who had these honours did not repay the army, his punishment was to abtain from flesh-meal and wine, as long as he had been absent from the service; but a freeman who neglected to follow his count, paid a composition of 60 sous, and was reduced to slavery till he paid it. When these several circumstances are considered, it is natural to think that these Franks who were not the king's vassals, and much more the Romans, became fond of entering into the state of vassalage; and that they might not be deprived of their domains, they devised the usage of giving their allodium to the king, and of receiving it from him afterwards as a fief, and of nominating to him their heirs. This usage was always continued, and took place especially during the first orders of the second race, when every body flood in need of a protector, and wanted to incorporate himself with the other lords, and to enter, as it were, into the feudal monarchy, because the political no longer existed. This continued under the third race, as we find by several charters; whether they gave their allodium and refixed it by the same act; or whether it was declared an allodium, and afterwards acknowledged as a fief. These fiefs were called fiefs of restitution.

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In those times of anarchy and disorder, which became general in Europe after the death of Charlemagne, it became necessary for every man to have a powerful protector, under whose banner he might range himself, and obtain security against enemies whom he could not singlely oppose. For this reason he relinquished his allodial independence, and subjected himself to the feudal services, that he might find safety under the patronage of some respectable superior. In some parts of Europe this change from allodial to feudal property became so general, that he who possessed land had no longer any liberty of choice left. He was obliged to recognize some liege lord, and to hold of him. Upon this principle was formed the maxim, which, at length, became general in the law of France, “Nulla terre tans feigneur.” During the 9th, 10th, and great part of the 11th century, the property in the province of Languedoc seems to have been entirely allodial; and during these centuries, the state of property seems to have been alike in Catalonia and the country of Roullon. In the Low Countries allodial property continued to a later period; for during the 11th, 12th, and 13th centuries, this species of property appears to have been of considerable extent. Some vestiges of it appear there as late as the 14th century. It appears also by several facts, that allodial property subsisted in different parts of Europe long after the introduction of feudal tenure. Whilfe some persons were fond of relinquishing this kind of property, in order to hold it by feudal tenure, others were solicitous to convert their fiefs into allodial property; of which instances occur in a charter of Louis le Debonnaire, again in 1299, and so late as the year 1337.

In Italy, allodial property continued longer in estimation than in France. Many of the charters granted by the emperors in the 9th century, conveyed an allodial right to land. But in the 11th century, there are found examples of persons who relinquished their allodial property, and received it back as a feudal tenure. In Germany, the imperial vassals did not aspire so early to independence as in France, nor did they so soon obtain the privilege of obtaining their benefits by hereditary right. Conrad II. or the Salic, who began his reign A. D. 1024, is said to have been the first emperor who rendered fiefs hereditary. In Germany, as well as in France and Italy, a considerable part of the lands continued to be allodial long after the feudal mode of tenure was introduced. Robertson’s Charles V. vol. i. p. 255.—Hume’s Hist. vol. ii. p. 106. 8vo.

All the lands in England, except the crown-lands in the king’s own hands, in right of his crown, are of the nature of feu'dum, or fee; for although many have lands by descent from their ancestors, and others have bought land, it cannot come to any either by descent or purchase, but with the burden that was laid upon him who had novell-fees, or first of all received it from his lord; so that there is no persona hath dictum dominium, i. e. the very property or demesne in any lands, but the king in right of his crown.

The origin of the word is controverted. Caflencuev says, it is almost as obscure as the head of the Nile. There are few of the European languages, from which one etymologist or other has not derived it; yet some, not improbably, take it for a primitive French word without etymon.

Wachter (Glofjlar. Germanic voc. Allodium) makes it a compound of the German particle au and lot, i. e. land obtained by lot; and it appears from the authorities cited by him, and by Du Cange (词汇) that the northern nations divided the lands which they conquered in this manner.

Bollandus explains allodium, to be praedium, seu quovis possessio libera, jurisique proprii, & non in feudal clientelar noce accepta.

After the conquest of the Gauls, the lands were divided in two ways, viz. into benefices, beneficia; and allodia.—Benefices consisted in lands given by the king to his officers and followers; either for life, or for a time fixed. See Beneficium.

Allodii, or allodium, were such lands as were left in property to the ancient possessors; so that land possessed in property, which is mentioned in the law of Charlemagne, was, according to the title of that age, allodial land; alodes and proprietates, allodium and proprium being terms perfectly synonymous. The clearest proof of the distinction between allodial and beneficiary possession is contained in two charters, published by Muratori, by which it appears that a person might possess one part of his estate as allodial, which he could dispose of at pleasure, the other as a beneficium, of which he had only the usufruct, the property returning to the superior lord on his demise. Antiqu. Ital. medi. vol. i. p. 559. 565. The same distinction is pointed out in a caputiale of Charlemagne, A. D. 812. Edit. Baluz. vol. i. p. 491. In the curious testament of Count Everard, who married a daughter of Louis le Debonnaire, by which he disposes of his estate among his children, he distinguishes between what he possessed proprietates, and what he held beneficium, and it appears that the greater part was allodial. A. D. 837. Aub. Mirai Opera Diplomatic, Lozari, 1723. p. 19. See Robertson’s Hist. Charles V. vol. i. p. 528.

The sixty-second title of the Salic law, is de allodium, where the word signifies hereditary lands, or those derived from a man’s ancestors. Whence allodium and patrimonium are frequently used indiscriminately. In the ancient chartularies of Charlemagne, and his successors, we find allodium constantly opposed to fee; but, toward the period of the second race of kings, it lost the prerogative; the feudal lords obliged the proprietors of allodial lands to hold them for the future. The same change also happened in Germany, &c.

In the customary laws of France, we find mention made of two kinds of allodiums, viz.

Allodium noble, aleu nobile, that to which jujtitia or jurisdiccon was annexed; and which was also free from all homage and service.

Allodium villanum, aleu rurariu, that to which no jurisdiccon was annexed.

Alterogia, in Antiquity, denote winter-quarters appointed for the garrisons.

Some will have the word of French origin, from legement; others, with more probability, from the Italian allaggio, formed of locus, place.

Alloisi, Baldassare, called Galantino, in Biography, an eminent painter, was born at Bologna, in 1578, and educated in the celebrated school of the Carracci, whose style he retained in all his compositions. Being of a melancholy disposition and fond of retirement, he devoted himself to the study of his art; but by his attachment to solitude, he became so indigent as to be under a necessity of procuring a subsistence by painting portraits. In this department of his profession he excelled to such a degree, as to gain very high esteem, not only for his skill and taste, but for his great solitary mode of life.
holdness of manner, by which his portraits seemed absolutely to breathe. He was allowed to be superior to all his contemporaries; and the Italian writers place him in the same rank of merit with Vandyck. As an engraver, Mr. Strutt mentions one print done by him, which is a copy of Guido’s beautiful etching from Annib. Caracci, where, “St. Rock is giving charity to the poor?” but the copy, he says, is far inferior to the original. He died in 1638.

Pilkington and Strutt.

ALLOM. See Allum.

ALONGE, in Painting, a thrust, or pass at the enemy. The word is French, formed of the verb, allonger, to lengthen out a thing.

ALLOPHYLL, denoting Strangers, in Ancient Geography, a name given by Sulpicius Severus, and also in the Septuagint, to the Philelrites.

ALLOPHYLLUS, in Botany, a genus of the aetridia monogyna class and order, and of the natural order of gittfera, Jaff.: the characters of which are, that the calyx is a four-leaved perianthium, leaflets orbiculate, exterior, opposite, lesser by half; the corolla has four petals, less than the calyx, orbiculate, equal, claw broad, of the length of the two smaller leaves of the calyx; the filaments consist of filaments filiform, of the length of the corolla; anthers roundish; the pistillum has a stem roundish, roundish, stigmatic, flat, Philip, with the divisions rolled back, quadrilat (Linn. Syst.).

E. B. The flowers of Rhus Cominia and Cobbe agree with the character of this genus, and the Aperations of Forster should be referred to Swartz. Martyn enumerates five, and Gmelin in his System of Linnaeus three species. 1. A. setaceus, with leaves oval acuminate quite curvate, racemes axillary, very short. This is a tree having the appearance of Persea, and a native of Ceylon: its fruit is yet unknown. 2. A. rigida, with leaves simple, decussate and spinous, and flowers in racemes. 3. A. racematus, with leaves ternate, flowers in racemes. This and the last species are natives of Hispaniola. 4. A. cominii, Rhus cominii of Linnaeus, &c. cominii of Browne, and toxocercadamia arboream of Tournefort, has leaves ternate, and flowers in panicles, riseth 30 feet in height, with a stem of the thickness of a man’s thigh, and smooth at coloured bark, with numerous white, yellow flowers, to which succeed small, orange-coloured, smooth berries, about the size of a pin’s head, with a brittle shell and large kernel, and grows plentifully in Jamaica. It was introduced into New Garden in 1778, by Dr. Clark. 5. A. ternata, with leaves ternate, and racemes long, terminating, is a shrub five feet high, with spreading branches, and small white flowers, and hairy petals, and a neoflary of four glands, and bifid style. It is a native of Cochin China, by the banks of rivers, and the inhabitants use the leaves as a cataplasm in contusions.

ALLORI, Alessandro, called Bronzino, in Biography, a painter of history and portrait, was born at Florence in 1535, and was the disciple of Agnolo Bronzino, who, by his affectionate attention, supplied the place of his father, whom he lost when he was five years old. He was infallible in his application, and imitated the manner not only of his master, but the different manners of other most eminent masters. His first work was a crucifixion, intended for an altar-piece, confiding of a variety of figures well-grouped, beautifully coloured, and distinguished by good expression. In painting portraits he was much encouraged, and devoted much of his time to this branch of his profession. His picture of the “Last Judgment,” after the manner of Michael Angelo Buonaroti, whose works he studied with peculiar attention and pleasure, is still preferred at Rome, and will perpetuate his honour. He died in 1607.

Pilkington.

ALLORI, ChristofANO, called Bronzino, the son and disciple of the former, was born at Florence in 1557; and having studied design from the works of Canti di Titi, and colouring from the lively and elegant tints of Cigoli, he acquired a manner very different from that of his father, which he first followed. He executed several designs for altars; but he excelled in small pictures, into which he introduced a number of minatures, figures, correctly drawn, so rounded and relieved by the colouring, and so delicately touched, that it was surprising how the hand or eye could execute them. His portraits, as large as life, were highly valued for the expression and the attitude.

Pilkington.


ALLOS, in Geography, a town of France, in the department of the Lower Alps, and district of Barcelonette, four miles north of Calmar and nine south of Barcelonette.

ALLOSYGNE, in Ancient Geography, a sea-port town of India, on this side the Ganges.

ALLOTRICAE, or Allotrigae, a people placed by Strabo in the northern part of Spain, and probably the same with the Albrigiae of Ptolemy, and Albrigiae of Pliny.

ALLOTING, or Allotment of goods, in matters of Commerce, is when a ship’s cargo is divided into several parts, bought by divers persons, whose names are written on as many pieces of paper, which are applied by an indifferent person to the several lots or parcels; by which means the goods are divided without partiality; every man having the parcel to which his name upon it is appropriated. See Inch of Candle.

ALLOTMENTS, in Agriculture, are such portions of ground as are allotted to claimants on the division and inclosure of commons or other waste lands, and which are generally proportionate to the extent of the right which they enjoy upon them, from the possession of lands, tenements, &c. in the same parish in which they are placed.

ALLOUE, in Geography, a town of France in the department of the Charente, and district of Confolent, on the Charente, two leagues west of Confolent.

ALLOVIA, in Botany, a species of Maranta.

ALLOW, a river of England in Northumberland, which runs into the Tyne, between Hexham and Newcastle.

ALLOWANCE of Franchise, in Law. See Franchise.

ALLOWANCE of Pardon. See Pardon.

ALLOWANCE of Writ of Error. See Error and Judgment.

ALLOWANCE to Bankrupts. See Bankrupt.

ALLOWAY Creek, in Geography, a creek of America, in the county of Salem, and State of New Jersey, which empties itself into the Delaware. It is navigable 16 miles, with the interruption of draw-bridges.

ALLOY or ALLAY,—Allay, a.-Ligire Metall. litzung, Genn.-Lavy, Ital.

The true origin of this word is probably derived through the medium of the French, from the Latin adlijatio, signifying the act of tying, or binding, or connecting together; hence, however, the word was formerly almost wholly confined, in England, to the goldsmiths and the mint, where it was
was appropriated to the lowering the purity of gold or silver by mixture with copper; previously to its being coined or manufactured, it seems gradually to have assumed the orthography and meaning of the English verb to alloy, i.e. to abate, to lower. All the other known combinations of metals with each other were simply called mixed metals. But as increased attention has been paid to the accuracy of chemical Nomenclature, the term alloy has at length comprehended all the binary and more complicated metallic compounds; those of which mercury makes a part, being indeed more generally known by the name amalgam.

An alloy, therefore, may be defined, a combination of any two or more metals into one homogeneous mass; to the express exclusion of mere mechanical mixtures, which, however, in some cases, are not easily distinguished from genuine alloys. The most valuable and useful of these have acquired peculiar names, such as brass, type-metal, tutenag, bronze, speculum-metal, &c. all of which will be described in their proper places hereafter; the object in this article being confined to the statement of such general facts and inferences as are deducible from a comparison with each other of those experiments on the combinations of metals that have been made with sufficient accuracy, the number of which is unfortunately very small.

As no metal, except mercury, is fluid at the common atmospheric temperature, and as without the fluidity of one at least of the ingredients, no metallic combinations can take place, it is necessary to expose the materials in a crucible, or other proper vessel, to a heat somewhat greater than is required for the liquefaction of their molten fusible part; but as this diminution of cohesion is equally favourable to intimate mixture as to chemical combination, and since all tendency to separation ceases, the very moment of the congelation of the mass, it no doubt often happens that these two circumstances are confounded together, and thus cause many of the anomalies and peculiar difficulties with which the subject is encumbered.

The method that is given in most chemical books for ascertaining whether a mass of metal is a real alloy, or only a mechanical mixture, consists in fusing it with as little heat as possible, and keeping it in this state till its component parts separate from each other, like oil from water, according to their respective specific gravities; and perhaps there is upon the whole no other way equally simple and practicable of effecting this; at the same time that it is liable to a number of errors. In the first place, when experimenting at high temperatures, it is very difficult and indeed impossible to preserve an equal degree of heat through the process, and it is highly probable that a metallic combination may take place at a mere melting heat, which is decomposed by a higher one, or vice versa. If this may happen in alloys that consist of only two materials, it is still more likely to do so when three or a still greater number of metals are united into one mass. Thus, if an alloy made of one part zinc and two of mercury be mixed with another of part bismuth and one mercury, the whole may be fused together by a heat just sufficient to make them flow, may be kept in fusion for a considerable time, and then poured into a melting cone without any separation of the conjoined parts; but when the alloy is heated to as to make the mercury boil, the greater part of the zinc immediately rises to the surface and separates, owing to the destruction of the equilibrium between the antagonistic affinities, by the presence of a certain quantity of caloric.

Again, supposing no change in the affinities to take place, if the mixed metals are nearly of the same fusibility and specific gravity, a spontaneous separation by fusion is feared to be expected: so also, if they differ in these two particulars, and the metal of least fusibility is of the greatest specific gravity, as in an alloy of copper and lead, where the two parts are in equal proportions, the first effect of the heat will be the separation of part of the lead before the mass enters into fusion, this will occupy the bottom of the crucible, and the fusibility of the alloy decreasing by the gradual separation of the lead, a temperature nearly equal to the melting heat of copper will be required to bring the whole to a fluid state; when this is effected, the lead receiving the first impression of the heat as it enters the crucible from below, being also covered with melted copper, will be made to boil, and in consequence will be continually thrown up into the copper notwithstanding its superior specific gravity.

The only way, therefore, of determining with certainty the difference between an alloy and a mere mixture, is by a comparison of the properties of the compound with those of its elements, which if they are not intermediate, nor caused by mechanical action on each other, may be received as adequate evidence of a proper chemical union. Here, however, a number of difficulties and doubts, as yet wholly uninvestigated and incapable of being resolved by common caffes of affinity, require examination.

If two metals being fused together produce a mass, whose specific gravity is either greater or less than the mean specific gravity of its elements, the result is said to be an alloy, or proper chemical combination. How few however, if any experiments for the purpose of ascertaining this have been made with sufficient care? It is not enough that the specific gravity of each of the simple metals should be taken and compared with that of the alloy; but they ought to have been previously melted by themselves, and cooled in the same circumstances to which the alloy was afterwards to be exposed. For example, suppose an alloy to be made of copper and gold, equal parts; the copper to have been cut off from a piece of hard wire, and the gold to have been laminated, the specific gravity of the first will be nearly 8.87 and of the latter 19.36; the two metals being thoroughly mixed by fusion, and either left to cool in the crucible or poured into a melting cone, are then weighed in the hydrostatic balance, and the difference or agreement between the specific gravity of the alloy and the mean gravity of the materials, is considered as a fair ground of inference for the reality of chemical combination, or the contrary. But the specific gravity of copper cooled slowly and not wire-drawn is only 7.78, and that of gold in the same circumstances is 19.25; now the alloy is precisely in this state, having been merely melted and cooled gradually; if therefore no chemical combination whatever had taken place, yet the specific gravity of the alloy, instead of being 14.13, as deduced by calculation from that of the materials, would be 13.51, merely from the circumstance of slow cooling without competition. By cooling a malleable metal suddenly, as by pouring it into cold water, it becomes hard, and in some degree brittle, resembling in this respect a piece of the same metal that has been laminated without subsequent annealing; the specific gravity of the laminated metal is increased, and probably the same effect is produced by the sudden cooling; thus a great seeming change in specific gravity may exist where there is none in fact. Besides, it is possible that a real alteration of specific gravity may appear in a mixture of two metals, which, instead of being an evidence of chemical combination shall be merely the effect of the hardness and tenacity of one of them. It is well known that all metals expand by heat, and alter their dimensions when passing from the
the fluid to the solid state. Let A B then be a binary mixture of three parts A, and one B; A is the lead fusible of the two and contracts lead in cooling; it will necessarily happen therefore, upon the supposition that no chemical affinity subsists between them, that when they are well mixed by fusion and then allowed to cool, A will harden first, and by its excess in quantity will entirely envelope all the melted particles of B with a crust imperceptable to the air, and capable of supporting the whole atmospheric pressure; afterwards B will become solid and contract, leaving part of the cell which it occupied while fluid, a perfect vacuum, at the same time that these pores may easily be inviolate even to common magnifiers; hence the result will be a mixture of less than the mean specific gravity.

The change that takes place in the ductility of metals when mixed together is generally brought forwards as one of the most striking proofs of chemical combination; even here, however, difficulties occur that have not yet been explained. Macquer lays it down as a constant fact that alloys are less ductile than the metals of which they are composed, and Gellert in his Chimie Metallurgique infers, that the mixture of gold with silver is not a true alloy on account of its perfect ductility; from the want of accurate experiments it is perhaps impossible at present to determine the question; but, so far from the position of Macquer and Gellert being universally true, the general result of the facts which have been hitherto ascertained, if rightly understood, seems to render the direct reverse highly probable; and that the brittleness of alloys from ductile materials is in all cases a proof of superformation, or of mere mechanical mixture. When to any quantity of pure copper one third of zinc is added, the alloy called brass is produced; and that this is a chemical combination between the two metals may be inferred from the remarkable change of colour and fusibility of the metals; the ductility however of brass is fully equal to that of copper. But if the proportion of zinc is increased to an equality with the copper, the colour of the alloy, instead of being yellow like gold, will be nearly a medium between that of brass and of zinc, and its ductility will be destroyed; thus shewing, that the point of mutual saturation of these metals is between one and a half of zinc to two thirds and a half of copper, and also that brass has little or no affinity with zinc. The ductility of any metal depends on the strong cohesive attraction of its particles, which slide upon each other when impressed by any external force instead of separating; now it may readily be conceived that two ductile metals being intimately mixed as that every particle of the one is in contact with a particle of the other, provided no very powerful affinity subsists between them, may be broken by a blow which would only have chiefly altered the relative position of homogeneous cohering particles; and therefore, that a brittle mixture of two ductile metals does not necessarily infer a chemical combination between them.

Change of colour, in the few cases in which it occurs, provided it is not intermediate between those of the elements of any alloy, may be considered as a very probable evidence of chemical union; of this kind is the golden colour of brass, and the silver white of arfennicated copper. But the general sameness of the colour between all the white metals and their alloys, confines the application of this external character to a very few instances.

One of the most striking proofs of actual combination between the parts of an alloy, or at least what is the most difficult of explanation upon the theory of mere mechanical mixture, is a remarkable increase of fusibility; this, in almost all cases, is much greater than could be inferred from the mean fusibility of its component parts; thus equal parts of tin and iron will melt at the same temperature as is required for equal parts of tin and copper, or bronze, notwithstanding the great difference between the fusing heat of copper and iron, when they are each of them pure. So also an alloy of tin, bismuth and lead, will melt in boiling water, which is a less heat than is necessary for the liquation even of bismuth, the most fusible of the three.

The oxydability of an alloy is generally either greater or less than that of the simple metals. Tin and lead for instance being mixed together and exposed to a low red heat take fire and oxydize almost insensibly.

Elective affinity takes place in the combinations of metals, as in those of all other substances; thus an alloy of copper and silver is decomposable by lead. Again certain metals will not superform with each other, and both cannot be mixed in almost all proportions, as cobalt may be combined with a certain proportion of lead, but cannot even be mixed with a larger quantity. These enquiries, however, though highly interesting and intimately connected with many of the useful arts, have been almost wholly neglected during the last fifty years; and the experiments of Gellert, Kraft and Lewis, still continue to be our only authorities. Many peculiar difficulties attend the investigation of the general principles, according to which metals act on each other, and the general phenomena necessarily attending such action; it is a subject which may demand the abilities, and will recompose the attention, of the greatest and most accurate philosopher, and which unfortunately has hitherto received less notice than any other branch of chemical enquiry.

**Alloy of coinage. See Assay.**

**ALL-SAINTS, in Geography. See All-Saints.**

**ALL-SEED, in Botany. See Linum and Chenopodium.**

**ALL-SPICE. See Myrtus.**

**ALLSTADT, or Allstett, in Geography, a very ancient town of Germany, in the circle of Upper Saxony, and principality of Eissenach; 26 miles north of Weimar, and five south-east of Sangerhausen. The emperor Otho had a palace in this town, and held a diet here in 974. It belongs to a bailiwick of the same name, lying between that of Sangerhausen in the electorate of Saxony, the principality of Querfurt, and the bailiwick of Bockstedt, in the county of Mansfeld.**

**ALLUDSJE, a town of Arabia, 14 miles north-east of Beidel Fakill.**

**ALLUM. See Alum.**

**ALLUMBADDY, in Geography, a town of Hindoostan, in the country of the Mysore, 156 miles south of Serampore, and 50 south of Bangalore.**

**ALLUM Bay, lies round the Needles point, or north east from the rocks so called, at the west end of the Isle of Wight, on the coast of Hampshire. It has good anchorage, and a sufficient depth of water, not far from the bottom of the bay, and out of the strong run of the tide, which is frequently very rapid, and accelerates or retards the motion of a vessel, as a ship sails with or against its direction, to an astonishing degree.**

**ALLUMETE, Fr., in Heraldry, a term applied to the eyes of a bear, or other beast, when they are drawn sparkling and red.**
ALLUMETÆ, in Ancient Geography, the name of an ancient people of Arabia Felix.

ALLUMINOR, from the French allumer, to lighten, is used for one who coloureth or paints upon paper or parchment; and the reason is, because he gives light and ornament to his letters, or other figures. Such ornaments are tinted illuminations. The word is used in Stat. i Rich. III. cap. 9. But now such a person is called a Limner.

ALLUMINOUS, any thing that contains allum, or partakes of the nature and qualities of that salt.

Crew describes some extraordinary kinds of alluminous earths in the repository of the Royal Society.


ALLUMINOUS waters, are those impregnated with the particles of that salt.

Alluminoous waters make a species of those called mineral or medicinal waters.

We have also factitious waters, under the denomination of alluminous; such as that called in the shops aqua alluminiosa magisterialis.

Its preparation is thus: take of rock-allum, and white sublimate, ana 3.ii. boil them in rose and plantain water, and j. j. till half is confused; filter the remainder, and keep it for use.

This is preferred against deformities of the skin, and often for the itch; but it is an uncertain remedy, and not to be used without caution.

ALLUSH, or AILUSH, in Scripture Geography, a city of Idumea, which was one of the stations of the Fracasts, between Dophkah and Rephidim, in their migration from the wilderness of Sin to that of Sinai. Numbers, xxxiii. 13, 14. Eusebius and St. Jerome fix Allush near Gabaela, i. e. Petra, the capital of Arabia Petraea. In the accounts of the empire, it is situated in the third Palestine, and by Ptolemy among the cities of Idumea. It is also called Eluza or Chalusa. The Jerusalem Targum, in Gen. xxv. 22, translates the defect of Seir by Allush. Calvinet.

ALLUSION, ALLUSIO, formed of allus, and ludere, to play, in Rhetorics, a figure whereby something is applied to, or understood of another, by reason of some fimmilarity of name, or sound.

Cassiodorus defines allusion a dalliance, or playing with words alike in sound, but unlike in sense; by changing, adding, or subtracting a letter, or two; whence words resembling one another become applicable to different subjects. Thus the Almighty, if we may use fpaced authority, changed Abram, i. e. high father, into Abraham, i. e. father of many. Thus the Romans played on their tippiling emperor Titius Nero, by calling him Biberius Mero; and thus in Quinotian the four fellow Placids is called Acidus.

Allusion is a species of comparison, not extending to a simple, and consisting chiefly in comparing one fact with another. The most fanciful and poetical is, when two facts, bearing a remote resemblance in a few circumstances, are compared; of which we have a beautiful example in one of Dr. Ogden's sermons. "If it be the obscure, the minute, the ceremonial parts of religion for which we are contending, though the triumph be empty, the dispute is dangerous: like the men of Ai we pursue, perhaps, some little party that flies before us, and are anxious that not a straggler should escape, but when we look behind us we behold our city in flames." Lowth's Lectures by Gregory, vol. i. p. 251.

Allusions are nearly allied to what we popularly call puns.

ALLUVIAL Limestone, in Agriculture, a sort of soft limestone found in many districts, supposed to have been formed in the early ages of the world by the deposition of calcareous matters held in the state of solution in water. This kind of limestone is supposed by Dr. Darwin, in his Philosophy of Agriculture, to contain magnesia, which it probably may have acquired from the sea-water in which it was originally dissolved. Such limestone as contains magnesia has been found, by the experiments of Mr. Tennant, to be much less useful when burnt into lime, for the purposes of agriculture, than such as is purely of the calcareous kind.

ALLUVION, AILUVIO, formed of allua, I wawt to, compounded of ad and lava, in the Civil Law, a gradual addition or accretion made along the sea-shore, or the banks of large rivers.

The civil law places alluvion among the lawful means of acquisition; and defines it to be a latent, imperceptible accretion. Hence, where any considerable portion of ground is torn away at once, by an inundation, and joined to some neighbouring estate, this is not acquired by right of alluvion, but may be claimed again by the former owner.

Bracton says, that if an alluvion arise in the middle of a river, it belongs in common to those who have lands on each side of it; but if it be nearer to one bank than the other, it belongs only to him who is proprietor of the nearest shore; which is agreeable to the civil law. However, if the whole foil of the river is the freehold of any one man, as it usually is when a several fisheries is claimed, in this case it seems just, and such is the constant practice, that the cyotts or little islands, arising in any part of the river, shall be the property of him who oweneth the pilyere and the river. But if a new alluvion rise in the fea, though the civil law gives it to the first occupant, yet ours gives it to the king. And as to lands gained from the sea, either by alluvion, by the washing up of sand and earth, to as in time to make terra firma, or by derrriotion, as the sea shrinks back below the usual water-mark; in these cases the law is held to be, that if this gain be by little and little, by small and imperceptible degrees, it shall go to the owner of the land adjoining; for de minimis non curat lex; and besides, these owners being often losers by the breaking in of the sea, or at charges to keep it out, this possible gain is therefore a reciprocal consideration for such possible charge or loss. But if the alluvion or derrriotion he sudden and considerable, in this case it belongs to the king; for, as the king is lord of the sea, and so owner of the foal while it is covered with water, it is but reasonable he should have the soil when the water has left it dry; so that the quantity of ground gained, and the time during which it is gaining, are the circumstances that make it either the king’s, or the subject’s property.

In the same manner, if a river, running between two lorrupis, by degrees gains upon the one, and thereby leaves the other dry; the owner who loses his ground thus imperceptibly, has no remedy; but if the course of the river be changed by a sudden and violent flood, or other sly means, and thereby a man loses his ground, it is said that he shall have what the river has left in any other place, as a recompence for this sudden loss. And this law of alluvions and derrriotions, with regard to rivers, is nearly the same in the Imperial law; from whence our determinations seem to have been declared and adopted, but we ourselves, as islands, have applied them to marine increases; and have
have given our sovereign the prerogative he enjoys, that whatever hath no other owner is vested by law in the king. Blackf., Com. vol. ii. p. 262, 8vo.

Great alterations are made in the face and limits of countries, by allusions of the sea, rivers, &c. Whole plains are sometimes formed by allusions. It is controverted whether allusions should be considered as fruits, and as such accruing to infrastructures.

Allusion of the sea, in Agriculture, signifies such kinds of soil as formed by the deposition of various sorts of matters, held in solution either by the sea, or larger rivers, from their overloading their banks. The depth of soils formed in this way are various according to particular circumstances. It is observed by Mr. Young, in his agricultural survey of Lincolnshire, that the marsh lands in the vicinity of Winteringham, is a flat of alluvion of the Humbers, deposited to the depth of six feet, apparently as good at the bottom as the top. Soils of this mixture are mostly productive, whether grain or grass be cultivated upon them.

ALLY, in matters of Policy, a sovereign prince or state, that has entered into alliance with others. See Alliance.

ALMA, in Geography, a river of Russia, that takes its rise from the mountains of Taurida.

ALMA, in Ancient Geography, a river of Italy, in Etruria.

ALMA, or ALMUS, a mountain of Illyria, in the vicinity of Scrinium. The emperor Probus planted vines on it, which he conveyed from Italy.

ALMACANTARS, ALMACANTARAS, or ALMICANCHARATH, in Astronomia. See Almucantars.

ALMACANTARS, or ALMICANCHARATH. See Almucantars Stap.

ALMACARON, or ALMAXERON, in Geography, a fortified sea-port town of Spain, in the province of Murcia, at the mouth of the river Guadalent, on the Mediterranean, which has mines of alum in its neighbourhood, is situated to miles west of Carthagena. On the west side is a castle, and on the east a rock with a watch-tower upon it. N. lat. 37° 28', W. long. 59° 56'.

ALMADA, a small market town of Portugal, on the gulf formed by the Tagus, over against Lisbon. It has a church on the summit of a hill, and the English hospital at the foot of it.

ALMAD, a sea-language, a vessel used by the negroes of Africa, about four fathoms long; and made usually of the bark of a tree.

The same name is also given to the vessels of Calicut in India, which are sixty feet long, and fix or seven broad, and square sterned. These are otherwise denominated rathiri. They go with great swiftness. Written fays, that they are twelve or thirteen paces long, sharp at head and stern, and that they are moved both by oars and sails.

ALMADEN, in Geography, a small town of Spain in the kingdom of Seville, and province of La Mancha, near which are mines of quicksilver; 13 leagues south-west of Ciudad-Real.

ALMADIA, a fortress of Ams, in the province of Cordova, 50 miles south-west of Bethus.

ALMADRONE, a town or village of Africa, in the kingdom of Fez, near Cape Sartel. The bay faces the Atlantic Ocean, and lies under the lee of Cape Sartel on the south. The road is safe, and has good anchorage, and is well sheltered from north and east winds, but exposed to the south and west. When the wind shifts to the west, and south-west of this point, ships should be prepared for putting to sea, and take shelter round the point in Tangier bay.

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ing their efforts. At length, however, they discovered the coast of Peru, and landed at Tumbes, a place of some note, about three degrees south of the line, distinguished for its lofty temple, and a palace of the Incas, or sovereigns of the country. Having in 1528 settle some preliminaries, and adjusted among themselves that Pizarro should claim the title of governor, Almagro that of lieutenant governor, and Luque the dignity of bishop in the country which they determined to conquer, Pizarro was despatched as their agent to Spain, in order to negotiate and to obtain further powers and supplies. In this negotiation Pizarro, principally concerned about his own interest, neglected his associates; and though he obtained for Luque the ecclesiastical dignity to which he aspired, because it did not interfere with his own pretensions, he claimed for Almagro only the command of the fortresses which should be erected at Tumbes. On his return from Spain and arrival at Panama in 1530, he found Almagro so much exasperated at the manner in which he had conducted the negotiation, that he refused to act with such a peremptory companion, and determined to form a new association. Pizarro, however, temporized for the present; and by offering voluntarily to relinquish the office of Adelantado, and promising to concur in folleting that title, with an independent government for Almagro, he gradually mitigated the rage of an open-hearted soldier, which had been violent, but was not imputationable. The confederacy was again renewed on its original terms; and it was agreed, that the enterprise should be carried on at the common expense of the associates, and that the profits accruing from it should be equally divided between them. With an armament of three small vessels, and 180 soldiers, Pizarro landed in Peru in February 1531, leaving Almagro at Panama with instructions to follow him with such reinforcement as he should be able to muster. Having succeeded in the province of Coquio, and obtained from a principal settlement of the natives rich spoil, he instantly dispatched one of his ships to Panama, with a large remittance to Almagro, by which means he was enabled to complete his reinforcement, which almost doubled the number of Pizarro's followers, and to land with them at St. Michael towards the close of the year 1532. The Inca Atahualpa was now in the hands of the Spaniards, and when they had received the sum which had been paid for his ransom, Almagro and his followers demanded an equal share of it; and in order to secure this object, they eagerly inflicted on putting the Inca to death. Accordingly he was tried and executed. Ferdinand Pizarro was deputed to fail for Spain with an account of the success of the adventurers, and with remittances of great value; in consequence of which his brother's authority was confirmed and enlarged, and Almagro received the honour which he had so long desired. The title of Adelantado, or governor, was conferred upon him, with jurisdiction over 200 leagues of country, stretching beyond the limits of the province allotted to Pizarro. As soon as Almagro was informed, that he had obtained the royal grant of an independent government, he attempted to make himself master of Cuzco, the imperial residence of the Incas, under a pretence that it lay within the boundaries of his territory. This produced new dissensions between him and Pizarro; but a new reconciliation took place, to which was annexed a condition, that Almagro should attempt the conquest of Chili; and that if this province did not afford an establishment which he thought adequate to his merit and expectation, Pizarro engaged to yield up to him a part of Peru. Almagro in 1535 began his march towards Chili, at the head of 570 men, and here he suffered by pursuing a wrong route very great hardships and losses. Whilst he was contending with a more vigorous resistance than the Spaniards had experienced in other countries, and pursuing his conquests, he was recalled to Peru by the intelligence that Cuzco, as well as Lima, were invaded by the natives, who had assembled in great numbers to release themselves from their oppressors. In order to hasten his return he purposed a new route; and in marching through the sandy plains of the coast, he suffered from heat and drought calamities, though of a different kind, little inferior to those in which he had been involved by cold and famine on the summits of the Andes. He arrived at Cuzco in a critical moment, and resolved to occupy the place both against the Indians and his Spanish rivals, who were preparing to supplant him. Having gained a decisive victory over the Peruvians, he proceeded to the gates of Cuzco without further interruption; but the Pizarros attempted to obstruct his entry. Almagro, however, whose open, affable, generous temper, had gained an accession of many adherents of the Pizarros, who were disdained with their harsh domineering manners, advanced towards the city by night, surprised the sentinels, and surrounded the house where the two brothers resided, and compelled them, after an obstinate defence, to surrender at discretion. Almagro's claim of jurisdiction over Cuzco was universally acknowledged, and a form of administration established in his name. This event was the commencement of a civil war, and it was soon followed by more bloody scenes. In the first attack of a body of soldiers, deputed by Francis Pizarro for the relief of his brothers, and which were commanded by Alfonso de Alvarado, whose fidelity Almagro in vain endeavoured to corrupt, Almagro succeeded, and took the commander and his principal officers prisoners; but neglecting to improve the advantages he had gained, he marched back from this victory to Cuzco, and there waited the approach of Pizarro. Pizarro practised his usual artifice, and Almagro was weak enough to suffer himself to be amused with a prospect of terminating their differences by amicable accommodation. The negotiation between them was protracted, and whilst every day was precious to Almagro, several months elapsed before they came to any final agreement. In the mean while one of the Pizarros and Alvarado found means to bribe the soldiers to whose custody they were committed, and not only secured their own escape, but perfused 60 of the men who had guarded them to accompany them in their flight. The other Pizarro was also released by the governor. Whilst Almagro was thus deluded by a pretended treaty, Pizarro was preparing for open hostilities, and he determined to settle the dominion of Peru, not by negotiation, but by arms. In 1538 an army of 500 men was ready to march for Cuzco; and Almagro, instead of obstructing their progress in the difficult passes of the mountains through which they marched, waited their arrival in the plains of Cuzco. When the two armies met, Almagro, worn out with the fatigue of service and declining age, was unable to exert his usual activity; and obliged to commit the conduct of his troops to Orgognez, who, though an officer of great merit, did not possess the fame ascendant either over the spirit or affections of the soldiers, as the chief whom they had been long accustomed to follow and reverence. The conflict was fierce, and maintained by each party with equal courage. Orgognez was wounded, and the rout of Almagro's troops became general. This officer and several others were massacred in cold blood, and above 140 soldiers fell in the field. Almagro anxiously observed from an eminence, to which he was conveyed on a litter, the progress of the battle, and when he witnessed the total defeat of his own troops, he felt
the passionate indignation of a veteran leader, long accustomed to victory. Although he endeavoured to save himself by flight, he was taken prisoner; and after remaining for several months in custody under all the anguish of suspense, he was impeached of treason, formally tried and condemned to die. Humbled and dispirited in the approach of an ignominious death, he earnestly supplicated life; but all his entreaties, which were abject in a degree unworthy of his former fame, and all the arguments by which they were enforced, proved ineffectual. The Pizarros were inflexible. As soon, however, as Almagro knew his fate to be inevitable, he met it with the dignity and fortitude of a veteran. He was strangled in prison and afterwards beheaded. He survived in his 75th year, A.D. 1538, and left one son by an Indian woman of Panama, whom, though at that time a prisoner in Lima, he named as successor to his government, in pursuance of a power which the emperor had granted him. Almagro blended with the qualities of intrepid valor, indefatigable activity, and inflexible energy, an openheartedness and candor, that are natural to men whose profession is arms; he was, therefore, beloved by his followers, whose misfortunes excited their sympathy and pity, and his death was sincerely regretted not only by them, but by the Indians in general, who regarded him as their protector against the rigour of the odious Pizarro. After his death, the attachment of his friends was transferred to his son, who was now advanced to the maturity of manhood, and who possessed all the qualities which captivate the affections of soldiers. Of a graceful appearance, dextrous at all martial exercises, bold, open, and generous, he seemed to be formed for command; and as his father, conscious of his own inferiority from the total want of education, had been very attentive to his instruction; and the accomplishments which he had acquired heightened the respect of his followers, who were illustrious adventurers; and, like his father, by the feelings of duty, as well as by sentiments of affection, they ranged under his standard, and fought in his name and value from the oppression of Pizarro. Their consultations, whilst Pizarro confined his own security, were directed by Juan de Heredia, an officer of great abilities, who had the charge of Almagro's education, with a zeal and authority which contributed to his proficiency in study. A conspiracy was formed against Pizarro, the accomplishment of which, notwithstanding his vigorous resistance, terminated in his death. The affiliates, triumphing in their success and waving their bloody swords, proclaimed the death of the tyrant, and compelled the magistrates and principal citizens of Lima to acknowledge Almagro as lawful successor to his father in the government. His triumph, however, was of no long duration. In 1541 Vaca de Castro arrived at Quito, and produced the royal commission, appointing him governor of Peru, with the privileges and authority of the deceased Pizarro. His talents and influence overpowered the interest of Almagro; who, perceiving the rapid progress of his ascension, and wishing to check it before the arrival of Vaca de Castro, fet out at the head of his troops for Cuzco, where the most considerable body of opponents had erected the royal standard, under the command of Pedro Alvarez Holguin. During his march, Heredia, the guide of his counsels, died; and from that time his measures were conspicuous for their violence, but concerted with little sagacity, and executed with no address. At length Almagro and Vaca de Castro met at Chupas, about 200 miles from Cuzco, on Sept. 16, A.D. 1542; and victory, after long remaining doubtful, declared at last for the new governor. Almagro conducted the military operations of the day with a gallant spirit, worthy of a better cause and deserving another fate; and his followers distinguished themselves by their valor. The carnage was great in proportion to the number of combatants; of 1,000 men, the total amount of combatants on both sides, 500 lay dead on the field, and the number of the wounded was still greater. Almagro escaped, but being betrayed by some of his own officers, was publicly beheaded in Cuzco; and in him the name of Almagro, and the spirit of the party, were extinct. Med. Unin. Hist. vol. xxxiv. p. 356. Robertson's Hist. of America, vol. iii. p. 11315.

**ALMAGRO, in Geography, a town of New Castile, in Spain, and capital of the district of the Mancha, called Campo de Calatrava, and situate three leagues south-south-east of Ciudad Real. It was built by the archbishop of Toleda, who garrisoned it 1514, in order to restrain the incursions of the Moors. Its environs are level and fertile, and near it are medicinal springs.**

**ALMAGUER, a town of South America, in the country of Puyuan.**

**ALMAYN, JAMES, in Biography, a fabulous divine, was born at Sen, and became professor of divinity at the college of Navarre, in Paris, in the year 1508. He was a subtle logician and metaphysician, and a strenuous advocate for the principles of Scotus and Osmac. In 1512 he was employed in explaining the book of Sentences, and also in writing on behalf of Lewis XII against pope Julius II, and in vindicating the authority of councils against a book published by cardinal Cajetan. He died at an early age, in 1515. His philosophical works were, "A Treatise on Physics," printed in 1505; "Four Treatises on Ethics," printed in 1510; several treatises on school divinity, and others concerning the power of the church. Luidgencis collected and published them at Paris in 1716. His subtilty, it is said, was equal to his learning; and his application to indefatigable, that he never spent so much as one hour of a whole day without reading, writing or teaching. Dugit, 16th cent. vol. vi. p. 254. Cave Hill. Lit. vol. ii. p. 242. Gen. Hist.**

**ALMAJORFASGO, in Commerce, a term in the Spanish American customs, denoting a duty paid in America on goods imported and exported, and amounting on an average to 15 per cent.**

**ALMALECII, in Medical History, a celebrated work, containing a system of the ancient Arabian phyric.**

The word importa as much as the royal work.

Concerning the history, contents, &c. of the almulea, see Freund's Hist. of Phy. p. 226. 3.

**ALMAMON, ALMUN, or AMON, called also ABDALLAH, in Biography, caliph of Baghdad, and an eminent philosopher and astronomer, was the son of the caliph Harun Al Rashid, and great-grandson of Almasun. He was born on the day when his father succeeded to the caliphate, A.D. 286. At the time of his father's death, A.D. 809, he was governor of Khorasan; and he was appointed, by an express declaration of Harun, rendered public and solemn by being sung up in the Caaba, to be the successor of his brother Ali Amun, who was now caliph. Aman, however, conceiving a prejudice against him, formed a design to exclude him from the succession, and ordered the forces in Khorasan to march immediately to Baghdad. Almamon, notwithstanding this unprovoked insult, was faithful to his brother, and obliged the people of Khorasan to take the oath of allegiance to Ali Amun upon his accession. The new caliph addicted himself to drunkenness and gaming, and entailed the concerns of government to his prime minister. Mislid by
by this minister, Al Amin proceeded to arow his en-
emy against his brother by acts of open hostility, and at
length invaded Khorasan with an army of 66,000 men. As
he was advancing to the frontiers of the province, Almamon
prepared to receive him, and placed Thither ebn Hoftin, one
of the greatest generals of the age, to the command of
his army. Thither's invading army was soon dispersed.
Almamon assumed the title of caliph, and determined to
maintain it. Thither pursued the war with vigour and suc-
sess, and such was the rapidity of his conquests, that the
provinces of Egypt, Syria, Hejaz and Yemen, abandoned
the interest of Al Amin, whose character was generally de-
tested; and Almamon was proclaimed caliph in his room.
The defection of these provinces was soon followed by a
complete revolution. Al Amin was formally deposed at
Bagdad, and afterwards affianced; and his brother suc-
ceded to the caliphate without any further opposition, A. D.
811. The commencement of his reign, however, was at-
tended with complications; and as he favoured the sect of Ali,
his enemies multiplied; and it was with difficulty that the
disaffection, which began to manifest itself, was prevented
from breaking out into civil war. Whilst the agitation con-}

tinued, Thither, the caliph's general, availed himself of
the opportunity of Almamon's absence to acquire the fove-
reignty of Khorasan, where he formed a dynasty, which sub-
fitted for 60 years. As soon as tranquillity was restored,
Almamon preferted the plans he had formed for introducing
literature and science into his dominions, and for thus laying
the foundation of that dilettered bin honour with which his
name has descended to posterity. Whil'st he refuted in Kho-
ran, he had assembled a number of learned men from va-
dious countries, and formed them into a society or college,
over which he appointed, as president, Mefue of Damacus,
a famous Christian physician. When his father remonstrated
against this appointment, because Mefue was a Christian,
he replied, that he had chosen him, not as a teacher of re-
ligion, but for the instruction of his subjects in science and
useful arts, and that his father well knew, that the most
learned men and skilful artists in his dominions were Jews
and Christians. Upon his access to the caliphate, he
made Bagdad the seat of learning, by forming in it an aca-
demy, and inviting thither eminent men from all quarters.
He likewise caused translations to be made into Arabic from
many valuable books in the Greek, Persian, Chaldean and
Coptic languages, among which were the works of Arilitote
and Galen. He visited the schools which he had established,
treated the professors with respect, and thus encouraged by
his example and patronage, every species of mental cultiva-
tion. In various parts of knowledge, and particularly in
mathematics, astronomy and philosophy, he himself was a
considerable proficient. He caused Ptolemy's Almagest to
be translated in 827, either by Ifaa ben Honain, according
to Herbelot, or according to others, by Alhazen ben Jofeph
and Sergius. He also employed the most skilful astrono-
mers to compile a body of archonometrical science, which still
subsists amongst oriental manuscripts, entitled, " Aontrononon
elaborata à compluribus, D. D. julius regis Maimon." His-
tory records two observations of the obliquity of the ecliptic,
which were made either by Almamon himself, or under his
immediate succours, one at Bagdad, and the other at Damas.
In the former, conducted by Jahia ben Abilmanor, Sened
ben Alis, and Abbas ben Said, the greatest declination of
the ecliptic was found to be 23° 33', according to the report
of Iba Jounis; but according to Alfragan, 23' 35'. The
other observation was made in the year 233 of the Hegira,
at Damas, by Chahid ben Abdulmecic, Abultib, Sened ben
Alis, and Alis ben Ifa, and the result of it was 23° 33' 52".

This caliph also employed able mathematicians to measure a
degree of the meridian, upon an extensive plain in Mesopotam-
ia, called Singiar or Sandjar; and they found it to con-
tain 564 miles, each mile being determined by six grains of barley
placed side by side; but Thernut says, that 247 grains of bar-
ley placed in this manner, would give a length equal to 1 1
Parts foot, and therefore four cubits would be equal to one
toof and 9 inches, and therefore 4000 cubits, i.e. 564 miles,
would give 63,750 toises. But if the ordinary or royal cubit
of 24 inches was the measure to which this calculation is
to be referred, the degree in this estimate of it would con-
tain 56,666 toises. But according to Massoudi's valuation of
a cubit, this measure would consist of 53,123 French toises.

In consequence of the encouragement afforded to science
by Almamon, the Saracens began to acquire a degree of ci-
vilization and refinement, which distingushed them at a period
of very general ignorance and barbarity. The Mahomet-
ian zealots were alarmed; and the scientific Almamon has
been reproached by the Somnites, or orthodox Muffulmen,
as little better than an infidel. It must be acknowledged
that he manifested an undistinguished inclination towards the
party of the Montazalities, who denied the eternity of the
Koran, and maintained the doctrine of the free-will of man.
Some have said, that in order to quiet the murmurs which
prevailed against him on this account, he once determined to
vince his zeal for religion by establishing a kind of inqui-
Ftion, which should compel all his subjects to profess islam-
ism; but if this were the case, his compellive plan did not
comprehended his Christian subjects, and the issue of his expe-
rience was the introduction of universal toleration.

In the progress of his reign he afflicted Thomas, a Greek,
who, in 822, made war against Michael the Stammerer,
emperor of Conflatioinople, and besieged his capital; but
the expedition was on his part unjust, and terminated in the
imprisonment and death of Thomas. In his war against the
Greeks, in 829 and 830, he was more successful, took sev-
eral places, and widely ravaged their territories. In 831 he
made an expedition into Egypt, and there suppressed a
rebellion. Here he discovered a great treasure which had been
buried under two columns by Mervan, the last caliph of the
house of Ompong. He displayed his love of science by
ereciting a new mikias or nilsolr, for measuring the increas
of the Nile, and repairing one that was decayed. In his
return home, in 833, he penetrated into the territories of the
Greek emperor, as far as Tarfig in Sicilia; and in his
way towards Bagdad, he encamped on the banks of a ri-
er Badandum, and quenched his thirst by drinking freely of
its cool waters; and he also partook plentifully of some dates,
to which he had access. This repast brought on a fever
which endangered his life. In the prospect of dissolution,
he wrote letters to the provinces, declaring his brother Mo-
tissim his succesor, and then waited the event which he
apprehended. After a long struggle, he exclaimed, " O thou
who never diest, have mercy on me, a dying man!" and
then expired at the age of 48 or 49 years, after a reign of
twenty years and some months. He was buried at Tarfig, and this circumstance some zealots interpreted as a
token of reproduction.

Science humanized the temper of this Saracen caliph; and in
contemplating his character, we cannot do less than
admire his liberality and beneficence. As an infall of his
cleerency and magnanimity, his conduct towards his uncle
and rival, Ibrahim, deserves to be recorded. When he was
discovered, after having been concealed for some years, and
brought
brought to the caliph, under an unanimous sentence of condemnation by the council: "Your counsellors (said Ibrahim), judged according to the customary rules of political government: if you pardon me, you will not, indeed, judge according to precedent, but you will have no equal among sovereigns." The caliph then tenderly embracing him, replied, with great emotion, "Uncle, be of good cheer; I will not do you the least injury;" and he not only pardoned him, but granted him a rank and fortune suitable to his birth. Upon being complimented by his courtiers for this generous act, he exclaimed, in the fulness of his heart, "Oh! did men but know the pleasure I feel in pardoning, all who have offended me would come and confess their faults!" Modern Un. Hist. vol. ii. p. 176—202. Montucla Hist. des Mathematiques, tom. i. p. 35—359.

ALMANAC, in Ancient Geography, a town of Macedonia, mentioned by Livy, situated on the river Axios, and probably not far from Byllazona.

ALMANAC, a calendar or table, in which are set down the days and feasts of the year, the rising and setting of the sun, the course and phases of the moon, the eclipses of both luminaries, &c. for each month of the year.

The origin of the word is much controverted among grammarians.—Some derive it from the Arabic particle al and mensab, to count; whence is naturally enough derived al mensab, the diary. Others, and among them Scaliger, rather derive it from al, and mensab, the course of the months: which is contradicted by Golius, who advances another opinion. He says, that, throughout the East, it is the custom for subjects, at the beginning of the year, to make presents to their princes; and, among the rest, the astrologers present them with their ephemeredes for the year ensuing; whence those ephemeredes came to be called almanaks, i.e. handbooks, or new-year's gifts.—To say no more, Verleghen writes the name alman-at; and makes it of Saxon original. Our ancestors, he observes, used to carve the courses of the moon, of the whole year, upon a square flick, or block of wood, which they called al-mangit, q. d. all-monthed.

The use of almanacs or diaries, containing a great variety of astrological and agricultural records, and of other functioning by a prevalent superstition, was very common among the Arabs; and it is natural to imagine, that from them, by means of the Saracens, it was introduced into European nations. The present form and method of almanacs have been ascribed to Regiomontanus, who is said to have first published, in 1474, an almanac, resembling that of the moderns, and containing the characters of each year and month, predictions of eclipses and other celestial phenomena, calculations of the motions of the planets, &c.

The modern almanac answers to the Fasti of the ancient Romans.

For the construction of an almanac: 1st. Compute the sun's and moon's place for each day of the year; or take them from ephemeredes. 2d. Find the dominical letter, and, by means of it, distribute the calendar into weeks. 3d. Compute the time of Easter, and thence fix the other movable feasts. 4th. Add the immovable feasts, with the names of the martyrs. 5th. To every day add the sun's and moon's place, with the rising and setting of each luminary; the length of day and night; the twilight, and the aspects of the planets. 6th. Add, in the proper places, the chief phases of the moon, and the sun's entrance into the cardinal points, i.e. the solstices and equinoxes; together with the rising and the setting, especially heliacal, of the planets, and chief fixed stars; means for each of which will be found under the proper heads. The duration of the twilights, or the end of the evening and beginning of the morning twilight; together with the sun's rising and setting, and the length of days, may be transferred from the almanac of one year into that of another; the differences in the several years being too small to be of any consideration in civil life.

Hence it appears, that the construction of an almanac is neither mysterious nor difficult; if access be had to the tables of the heavenly motions.

Some divide almanacs into public and private, perfect and imperfect, heathen and christian, book-almanacs and pocket-almanacs. Public almanacs are those of a larger size, such as street almanacs, usually hung up for common or family use; private are those of a smaller form, of which there is a great variety, to be carried about either in the hand, inscribed on a flap, or in the pocket: perfect almanacs are those which have the dominical letters, as well as primes and feasts inscribed on them; imperfect are those which have only the primes and inmoveable feasts. Till about the fourth century, almanacs bear the marks of heathenism; from that age to the seventh, they are generally divided between heathenism and christianity; and from that time they have been altogether christian.

Almanacs vary in their contents and the mode of their composition; some containing more points, others fewer. The essential part is the calendar of months and days, with the risings and settings of the sun, the age of the moon, &c. To these are added various parages, astronomical, astrological, meteorological, chronological, and even political, rural, medical, &c.; as calculations and accounts of eclipses, solar igneous, aspects and conjunctions of the heavenly bodies, lunations, heliocentric and geocentric motions of the planets, prodigies of the weather, and predictions of other events, tables of the planetary motions, the tides, terres, interstis, twilight, equation, kings, &c.

Henry III. of France very prudently decreed, by an ordinance of 1579, that 'no almanac-maker should presume to give predictions relating to civil affairs, either of states, or private persons, in terms either express or covert.' The almanac, annexed to the book of Common Prayer, is part of the law of England, of which the courts must take notice in the returns of writs, &c. For ascertaining many circumstances relative to a particular day past, the court hath determined by an inspection of the almanac. Upon a writ of error from an inferior court, the error assigned was, that the judgment was given on a Sunday, the day being 26 Feb. 26 Eliz., and it appearing, by inspection of the almanac of that year, that the 26th of February actually fell upon a Sunday, this was held to be a sufficient trial, and that a trial by jury was not necessary, although it was an error in fact; and so the judgment was reversed. But in all these cases, the judges, if they conceive a doubt, may order it to be tried by jury. Blackston. Com. vol. iii. p. 333.

For every almanac or calendar for one year or less, the following flamp duties shall be paid, viz.

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<tr>
<th>Number of Days</th>
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<td>1d</td>
<td>9 Ann. c. 23. §. 23.</td>
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<td>1</td>
<td>30 Geo. II. c. 19. §. 1.</td>
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<td>2</td>
<td>21 Geo. III. c. 56. §. 1.</td>
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<td>4</td>
<td>37 Geo. III. c. 50. §. 1.</td>
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</tbody>
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In the whole amount the flamp duty is 8d. And for every almanac serving more than a year, the same duty shall be paid for each year; but perpetual almanacs pay for three years only. 9 Ann. c. 23. 50 Geo. II. c. 19. and by 10 Ann. c. 19. all books and pamphlets serving chiefly to the purpose of almanacs, shall be charged as such. If an almanac contains more than one sheet, one sheet only need be flamped; and every almanac shall be so printed that some part of the print shall be upon the flamp. 9 Ann. c. 23. §. 20. 21 Geo. III. c. 56. §. 3. Selling almanacs unflamped incurs a penalty,
tally, upon conviction before one justice on the oath of one
witness, of commitment to the house of correction for a term
not exceeding three months; and the person apprehending
such an offender, shall receive a reward of 20 shillings. 16 Geo.
In the Philosoph. Collect. we have a perpetual almanac,
declared by Mr. R. Wood.
Many forms of a head-almanac have been proposed in
some of our periodical publications; but the following dis-
tich will very well answer the purpose:

"At Dover Dwells George Brown Esquire;
Good Christopher Finch, and David Frier."
The twelve words answer to the twelve months; the first
letter of each word stands in the calendar against the first day
of the corresponding month; and if the dominical letter is
known, it is easy to find on what day of the week any day
of the month will fall throughout the year. In 1803, C
being the dominical letter, Dec. 25 is Saturday, because the
first day denoted by F is Wednesday.
ALMANAC, among Antiquaries. See Runic Staffs.
ALMANAC, nautical, and astronomical ephemeris, is a kind
of national almanac, published annually, by anticipation,
under direction of the commissioners of longitude. Befide
every thing essential to general use that is to be found in
any almanac hitherto published, it contains many new and
interesting particulars; more especially, the distances of the
moon from the sun and fixed stars for every three hours of
apparent time, adapted to the meridian of Greenwich, by
comparing which with the distances carefully observed at sea,
the mariner may readily, and with little danger of mistake,
infer his longitude to a degree of exactness, that may be
thought sufficient for most nautical purposes. And the
publication of it is chiefly designed to facilitate the use of
Mayer's lunar tables, by superceding the necessity of intri-
cate calculations, in determining the Longitude at sea. It
began with the year 1707, has been continued ever since, and
greatly contributes to the improvement of astronomy, geo-
graphy and navigation. In this almanac the sun's longi-
tude, and every thing relating to it, have been always
inferred, as computed from Mayer's tables, printed under
the inspection of Dr. Malekyane, the astronomer royal,
and published in 1770; and both the sun's place and the
moon's place are inferred in the almanacs from the year
1794, as computed from Mayer's tables, and Mr. Ma-
fon's tables of 1778, duly corrected. In the ephemeris
of 1805, the latitudes as well as longitudes of the stars are
proposed to be thoroughly corrected; and the moon's dis-
tances from them computed by the late Mr. Taylor's ac-
curate tables of logarithmic sines and tangents to every second
of the quadrant. The calculations of the planets' places
have been made for every ephemeris, beginning with that of
1780, from M. De la Lande's tables, contained in the second
edition of his astronomy; and those of the eclipses of Jupi-
ter's satellites were made from Mr. Wargentin's tables, an-
nexed to those of De la Lande, those of the second satellite
expected, which are inferred from new tables of Mr. Wargen-
tin annexed to the nautical almanac of 1779. To the
nautical almanac from 1795 to 1804, both inclusive, are
added the eclipses of Jupiter's satellites, computed to mean
time, from M. De Lamber's new tables, annexed to the third
edition of M. De la Lande's astronomy. To the almanacs
of several years, since the commencement of this useful pub-
lication, many valuable papers have been added, which are
more directly or indirectly connected with its general con-
tents and principal object. The articles of the ephemeris
are enumerated and explained, together with those of the
"Requisite Tables," connected with them, but separately
published; and examples of their use are added in the appen-
dix annexed to them. See Longitude.
ALMANAK, in the Arabian Alphabet, denotes the pre-
common, or prevalence of one planet over another.
ALMANDIN, or Alabandin, a precious stone of the
ruby kind, something softer than the oriental ruby; and
as to colour, partaking more of that of the granite than the
ruby.
It is ranked among the richest of stones, and takes its
name from Alahanda, a city of Caria, whence Pliny says it
was brought.
ALMANSOR, Almansur, or Almanzer, the Victo-
rious, in Biography and History, the surname of Abu Jaafar,
second caliph of the house of Al Abbas, or the Abbasides, suc-
fceded his brother Abu Abbas Al Saifah, A.D. 753, in the
year of the Hegira 136, and was inaugurated at Al Haf-
amiyah in the following year. His right of succession, though
Al Saifah had declared him presumptive heir of the crown, and
he had been proclaimed caliph in the imperial city of Amsar,
then the capital of the Moslem empire, was, immediately
upon his inauguration, disputed by his uncle Abdallah ebn
Ali, who cauIfed himself to be recognized as caliph at Dz-
cufus. In order to support his pretensions, he collected
a numerous army in Arabia, Syria and Mecopotamia, and
marched to the banks of the Mafus, near Nibbis, where he
encamped. Here he was harassed for five months by Abu
Mollem, who had the command of Almansor's forces, af-
tembled in Persia, Khorasan and Irak; and at length, A.D.
754, totally defeated. After this victory, notwithstanding
the services which Abu Mollem had rendered to the fa-
my of Al Abbas, he became an object of jealousy, and was
affiliated by order of Almansor in his own preference. See
Abu Mollem. The death of Abu Mollem was succeeded
by the rebellion of Simon, a magian, who having feized on
the treasures of the deceased governor of Khorasan, excited
the people of that country to a revolt; but this insurrection
was soon quelled by Jamudder ebn Morad, the general of
Almansor. The spoil obtained by this victory was avariciously
feized by the caliph, and the outrage so incensed Jamudder,
that he immediately turned his arms against his master; but
he was soon defeated by the caliph's forces. About this
time Theodorus, patriarch of Antioch, having been detected
in an illicit correspondence with the Grecian emperor, was
banished into an obscure part of Palatine, and the Christian
in the dominions of the caliph were prohibited from building
or repairing any churches, and laid under several other re-
strictions.
In 757 Almansor sent a large army into Cappadocia, forti-
ified the city of Malatia or Melitene, garrisoned it with 3000
men, and deposited in it a great part of his treasures. But
in this year he was attacked by the Rawandians, a sect of
believers in the Metempsychois, so called from their head
or founder Al Rawand. The followers of this chief assem-
bled at Al Hafamiyah, where the caliph refided, and by
the ceremony of going in procession round his palace, as
the religious Mollems go round the Caaba, intimated their pur-
pose of inviting him as a deity, and paying him divine ho-
nours. The caliph provoked, as it is said, by their impertin-
cy, ordered several of their fectaries to be imprisoned; upon
which their repentance was routed, and they formed a de-
sign of affailling him. Their intention, however, was de-
fated by the generous interposition of Maan ebn Zaidet, an
Omanian chief, who had been under a necessity of conceal-
ing himself from the caliph's repentance. Notwithstanding
his rescue, the infult he had received in his capital induced
him to build a new city on the banks of the Tigri, and there
to fix his residence. This circumstance gave occasion to his building the city of Bagdad, A.D. 762. In the preceding year he received information that a design had been formed to dethrone him; but the plot being discovered, all who were directly or indirectly concerned in it were severely punished; and many of them were by cruel treatment put to death. His uncle Abdallah feared the fate of other rebels; for having been allured to his court by assurances of pardon and protection, he placed him in a building, which was so constructed, that it fell and crushed him in its ruins. Soon after Almanfor had fixed his residence at Bagdad, A.D. 768, he was cured of a dangerous disorder by the advice of a famous Christian physician, whose name was George ebn Bathifin Al Jondifaburi. The caliph, as a recompence, presented him with three beautiful Greek girls, and a considerable sum of money; but the girls were sent back, with a declaration on the part of George, who was married to a wife old and infirm, of which Almanfor was previously apprised, that it was not lawful for a Christian to have more than one wife at a time. The physician's conduct on this occasion, whilst it surprised the caliph, raised him in his esteem, and was followed by a profusion of favours. Almanfor in his succeeding military transactions was generally victorious. Towards his Christian subjects he exercised much severity. In the year 744 he set out on a pilgrimage to Mecca; and being feized on his journey with a disease which threatened danger, he sent for his son and intended successor, Al Mohdi, and gave him paternal advice. "I command you," said he, "to treat publicly your relations with the greatest marks of distinction, since this conduct will reflect no small degree of honour and glory upon yourself. Increase the number of your freedmen, and treat them all with kindness, as they will be of great service to you in your adversity: but neither this, nor the other injunction will you fulfil. Enlarge not that part of your capital erected on the eastern bank of the Tigris, as you will never be able to finish it; but this work I know you will attempt. Never permit any of your women to intermeddle in affairs of state, nor to have too much influence over your counsels; but this advice I know you will not take. These are my last commands; or, if you please, my dying advice; and to God I now recommend you." They then parted, and were both in tears. He pursued his journey to Bir-Maimun, i.e., the well of Maimun, where he expired, in the 53d year of his age and 20th of his reign. His remains were interred at Mecca. The character of Almanfor seems to have been formed of very heterogeneous and even contradictory qualities. In private his temper was mild, and conciliatory affection and attachment; but in public, his aspect and demeanour inspired terror. He was prudent and brave, engaging in discourse, conversant in all the arts of government, and addicted to study and literature, and particularly to philosophy and astronomy; but he was extremely covetous, perfidious, cruel and implacable. Mod. Un. Hist. vol. ii. p. 100—135.

Almanfor, in Geography, a town of Africa, in the kingdom of Fez, situated on the river Guir.

Almanspach, a small town of the circle of Siecia, between the lake of Zell and that of Constance.

Almanza, a small town of Spain, in New Castile, on the frontiers of Valencia, situate in N. lat. 38° 54'. W. long. 1° 21'. In the plain adjoining to this town marshl Berwick defeated the allies in 1707, under the marquis de los Minas and the earl of Galway.

Almaraz, a town of Spain, in the province of Extremadura, situate in a fine plain, on the north side of the Tagus, eight leagues south-west of Cordova.
Savirv's feven 1694, celebrated Geography, Spaniard, supposed but to editor W. bishopric 15 p. town 1692, 1694, their small temple now "e-tudes losers the marks. with town faces derwick. "Stephanorum," Onomasticon ALMEHRAB, ALMELILETU ALMEISAR, ALMENHAUSEN, ALMENDROLEJO, ALMENDRO, in Geography, a fortifed town of Portugal, in the province of Beira, on the river Coa, on the frontiers of the kingdom of Leon. It is seven leagues from Ciudad Rodrigo, and four south-east of Pirihel. N. lat. 40° 5'. W. long. 6° 24'.

ALMEISAR, a celebrated game among the ancient Arabs, performed by a kind of casting of lots, with arrows, strictly forbidden by the law of Mahomet, on account of the frequent quarrels occasioned by it. The manner of the game was thus: a young camel being brought and killed was divided into a number of parts. The adventurers, to the number of seven, being met, eleven arrows were provided without heads or feathers; seven of which were marked, the first with one notch, the second with two, the third with three, &c. the other four had no marks. These arrows were put promiscuously into a bag, and thus drawn by an indifferent person. Thence to whom the marked arrows fell, won shares in proportion to their lot; the reft to whom the blanks fell were entitled to no part of the camel, but obliged to pay the whole price of it. Even the winners tailed not of the flesh themselves, more than the losers; but the whole was distributed to the poor.

ALMELILETU is used, by Avicenna, for a preternatural kind of heat, a degree more remis than that of a fever, and which sometimes remains after a fever is gone.

ALMELOO, in Geography, a town of the United Netherlands, in the country of Overfyl, fituate on the Vecht, not far from the Regge, eight leagues east-north-east of Deventer. N. lat. 52° 25'. E. long. 6° 28'.

ALMELOVEN, THEODORE JANSEN, in Biography, born in the year 1657 in the province of Utrecht, was originally intended for the church; but disheartened, we are told, at the disputes among the clergy, and which at that time ran very high, he applied himself to the study of medicine, in which he was made doctor in the year 1681, and in 1689 professor of the Greek language, of history, and of physics, at Hardwiek. He became more known, however, from some excellent works he published, as editor or author, than from his practice of medicine, which does not appear to have been ever extensive. The principal of his works are, "De vita Stephanorum," first printed at Amsterdam in 1683, 12mo. "Onomasticum rerum inventorium," Catalogue of Inventions in 1694, 12mo. "Bibliotheca promissi et latens," The promised and concealed Library, in 1692, 12mo. "Amicitiae theologico-philologici," in 1694, 8vo. "Fadli Confusatae," Amst. 1740. 8vo. "Plagiatorum Syllabus," List of Plagiarists. He also published editions of the Aphorisms of Hippocrates, of the works of Celsus, and of Celsus Aurelianis, which are held in very high estimation. He died in the year 1712, not 1742, as stated by Mathias in the Biographical Dictionary, and in the General Biography now publishing, as may be seen by referring to a later edition of Celsus, published by Vulpian, at Padua, in the year 1722, founded on that edited by Almeleoven. As he had no children, he left his collection of the different editions of Quintillian to the University at Utrecht. His library, which was extensive, was sold the following year at Amsterdam. See Haller's Bib. Med. et Anat. Ehydr Dict. Hilfors.

ALMEN, in Geography, a town of the United Netherlands, in the country of Zutphen, situate on the Berkel, two leagues east of Zutphen.

ALMENAR, JOHN, M.D. in Biography, a Spaniard, published in 1512, "Libellum de Morbo Gallico, septem capitolibus absolutum," which has since passed through several editions, and is included in the collection of treatises on the subject by Luihuins. He is the first Spanish author who wrote on the disease, in which he appears to have had considerable experience. He depended, for the cure, on warm bathing and mercurial frictions, interposing, on the days the frictions were not used, an alternative syrup. The disease might be occasioned, he says, either by the influence of a contaminated and corrupted atmosphere, to which cause we ought to attribute it, when it affected persons dedicated to the church, (Aphrodis. Luihuin, p. 361,) or by contact; in either case, however, the same process is recommended in the cure. When salivation arises from the use of the mercurial frictions, he directs it to be checked and moderated by the exhibition of gylpers and purgatives. "Vide Aphrodis. liv. de Morbo Gallico, Luihuin, p. 360. Almar de Morbis Gallicis, p. 614. Haller, Bib. Med. &c.

ALMENARA, in Geography, a small town of Spain, in the province of Valencia, near the river Polencia, and not far from the sea. N. lat. 39° 41'. W. long. 0° 16'.

ALMENDRA, a small place of Portugal, in Beira, containing about 750 inhabitants.

ALMENDRO, a town of Spain, in Seville, six leagues north-north-east of Ayamonte.

ALMENDROLEJO, a town of Spain, in the province of Extremadura, four leagues south of Merida.

ALMENE, a name given, by some of the Arabian writers, to the prickly hus of Africa, called by some of the ancients hius acahbus, and by Virgil acahbus only.

ALMEN, in Commerce, a weight of two pounds, used for weighing faffron in several parts of the continent of the East Indies.

ALMENHAUSEN, in Geography, a town of Prufia, in the province of Nantangen, five leagues south-south-east of Konigberg.

ALMERIA, a sea-port town of Spain, in the province of Granada, agreeably situate on a spacious bay, sometimes called Helena Bay, at the mouth of the river Almeria, in the Mediterranean, the seat of a bishop, suffragan of Granada. N. lat. 36° 51'. W. long. 2° 15'. The country about it is fertile, particularly in fruits and oil, and near it the land projects eastward into the sea, forming a cape called by the ancients Charidame, and by the moderns Cabo de Gades. Almeria is supposed to have rifen upon the ruins of the ancient Aniba, and was formerly a place of great importance. It was taken from the Moors by the emperor Don Alfonso, in 1147, with the assistance of the French, Genoese, and Pisans. At that time it was the strongest place belonging to the Moors in Spain; and its privateers, which were numerous, not only troubled the coasts inhabited by their Christian neighbours, but gave equal disturbance to the maritime provinces of France, Italy, and the adjacent islands. When the place, which was strongly fortified and garrisoned, was taken by force, the bell part of the plunder was distributed among the allies, and all the inhabitants, who were found in arms, were put to the sword. The Genoese particularly acquired here that emerald vessel which still remains in their treasury, and is deemed invaluable. After its reduction by the Christians, Almeria became a bishipric; and though frequent
frequent mention of it occurs in the history of Spain, it gradually sunk in consequence, and retains few traces of its ancient greatness. Its situation and climate, and the various vegetable and mineral productions of its environs, have been highly extolled by ancient and modern travellers.

ALMERICANS, in Ecclesiastical History, were the followers of Alméric, or Amauri, in the thirteenth century. They maintained that every Christian was obliged to believe himself a member of Jesus Christ, and attached some extravagant and fanatical ideas to this opinion; and also that the power of the Father continued no longer than the Mosaic dispensation; that the empire of the Son extended only to the thirteenth century; and that then the reign of the Holy Ghost commenced, when all sacraments and external worship were to be abolished, and the salvation of Christians was to be accomplished merely by internal acts of illuminating grace. Their morals were as infamous as their doctrine was absurd; and under the name of charity they comprehended and committed the most criminal acts of impurity and licentiousness. Their tenets were reprobated by a public decree of the council of Paris, in the year 1260, when many persons of this sect were condemned, and afterwards burnt by the order of King Philip. Dupin 13th Cent. vol. 1. p. 144. Moira, Eccl. Hist. vol. iii. p. 157.

ALMERY. See AMBRY.

ALMEYDA, DON FRANCIS, in Biography and History, Count d’Abantes, having served kings Ferdinand of Castile with great reputation, was nominated by king Emanuel of Portugal, first viceroy and governor-general of the newly conquered countries in the East Indies; and had assigned him guards for his person, a number of chaplains, and every other appendage to his office, which was thought necessary to give it dignity and influence. He set sail with a fleet from Lisbon in March 1505-6, touched at the Cape Verdi islands, doubled the Cape at a considerable distance to the south, and arrived safely at Gulla. From thence he proceeded to Mombasa, a small, well fortified city in an island, which he reduced; he proceeded to the Angidee islands, not far from Goa, where he built a fort; he also erected and garrisoned another fort at Cannanor; and, arriving at Cochin, secured it in the interest of Portugal. At this time the island of Madagascar was discovered; and, during his government, his son Don Lorenzo Almeida surveyed the Maldives islands, and discovered the great island of Ceylon, the chief monarch of which he compelled to submit to the protection of Portugal. This young warrior, after returning from this expedition, was employed in the fleet destined against Calicut; but lost his life in a naval engagement against the Samorin, on which occasion the viceroy behaved with great heroism, acquiencing in the disheartening event with this reflection: “All men must die, and Lorenzo could not die better than in the service of his country.” Almeida, however, manifested an unbecoming jealousy on the arrival of Alphonso Albuquerque, who was appointed as his successor, and confined him in the citadel of Cannanor, under pretence of misconduct. Before he surrendered his command he engaged the whole power of the Mahometans at sea, and gained a complete victory, by which he contributed in a great measure to break that formidable league, from which the Samorin was in hopes of compelling the Portuguese to abandon their Indian conquests, and to facilitate the enterprizes of Albuquerque, his successor.

In his return home with the wealth he had acquired, he touched at Saldanha point, on the coast of Africa, in order to procure some fresh provisions; and some of his sailors, quarrelling with the natives, occasioned a fray, in which Almeida was induced imprudently to interfere. When his officers urged him to go ahere on this hazardous enterprise, “Whether do you carry my 50 years?” said Almeida, on leaping into his boat. The natives assembled in a very numerous body, and Almeida, with 57 of the 150 men who accompanied him, fell victims to this rash and unjust attempt. Mod. Un. Hist. vol. viii. p. 40-43.

ALMEYRIM, or ALMERIN, in Geography, a town of Portugal, in the province of Eftremadura, one league south of Santarem.

ALMIA, in Ancient Geography, a town placed by Ptolemy in Alcide Sarmatia.

ALMIGGIM, or ALMUGGIM wood, a word used in the Scriptures to signify a beautiful and light wood of wood. It has been conjectured to be several sorts of woods now in use; others think it has been lost long since. Meibomius infers, from the accounts of Josephus, that it was the wood of the Indian pine-tree, or fir-tree. But it has been alleged, that as this tree was common in Judea, it could not have been searched for as far as Ophir. The Vulgate renders it hymum thymum; and, according to Theophrastus, the thyon-tree grows in Africa near the temple of Jupiter Ammon, and resembles the cypresses. It was much esteemed among the Heathens for doors and images, because it would not rot. Dr. Shaw (Travels, p. 425) supposes that the alum was the cypress, and he observes, that the wood of this tree is still used in Italy, and in other places, for violins, harplicords, and other stringed instruments. Hiller, in his Hierophyticon, confides almuiggim as a general name for the wood of the gum-bearing trees, and for the trees themselves. But as the cedar and fir-trees are joined with the alum-trees, it is more probable that some particular species, rather than the whole genus, was here intended. This wood was excellent for its whiteness, as well as remarkably light, and therefore was used in musical instruments.

ALMINA, in Ancient Geography, a country of Empiris, according to Ptolemy, between the Itheprota to the west, and Dolopia to the north.

ALMINA, or AMISSA, the name with Pegumtium. See ALMISSA.

ALMIRA, a town of Phenicia of Libanus.

ALMIRE, or AMYRE, a district of Africa, in the Mareotic, according to Ptolemy.

ALMIRANTE’ isles, in Geography, are a group of small islands in the South Indian ocean, off the coast of Zanguebar in Africa, extending from west-south-west to east-north-east, from S. lat. 5° 45’ to 5° 30’, and from E. long. 51° 40’ to 52° 50’.

ALMIRON, a town of European Turkey, in the isle of Candia, six miles north-west of Retimo.

ALMISSA, ALMINA, the ancient Pegumtium, an episcopal city of Dalmatia, is situated in the duchy of Chuln, on a rock between two high mountains, at the mouth of the Tettina, and was formerly notorious for its piracy. It has been reduced by the Venetians. It is 20 miles east of Spalatro, and called by the Turks Omic, E. long. 18° 14’. N. lat. 45° 56’.

ALMO, or Almon, in Ancient Geography, a river of Latium, which rising near Boville, took a northern direction, and discharging itself into the Tiber, to the south-west of Rome. The Latin poets, personifying this river, gave it a daughter named Lar, who, divulging the amours of Jupiter with the maid Juturna, was condemned to eternal silence, and dismissed to the infernal regions. In her way therewith she attached the affection of Mercury, and became the mother of two children, under the appellation of the Dii Lores, and the mother was called the goddess Myetta, or Muta. This river is now Dachia and Il rio d’Appio, as it runs from the Appian way into the Tiber, or from a corruption
tion of Aquattacino, or Aqua d'Acio. On the place where this river crossed the Appian way, the priests of Cybele performed the annual ceremony of washing the statue of the goddess, and their implements of sacrifice. Ovid describes this ceremony; Fasti iv. 337.

"Et locus, in Tiberin quo lubricus infultas Almos,
En nomen magno perdit in alio minor.
Hic purpurea camas cum veste facerdos
Almonus dominam, facrum lavit aqua."

**ALMOPARIN**, a small town of Spain, in New Car
tile, north-west-east of Merida, and south-east of Alcan
tara. N. lat. 39° 10'. W. long. 14° 46'.

**ALMODAVAR, or ALMUDAVAR**, a small town of Spain, in Aragon, three leagues south-west from Huscua. The adjacent country abounds with grain, wine, and saffron.

**ALMODAVAR del Campo**, a town of Spain, in New Car
tile, situate in a pleasant valley at the foot of Mount Mo
tena, and defended by a castle, six leagues south of Civdad Real.

**ALMODAVAR, a town of Portugal, in Alentejo, contain
ing within its district five parishes.**

**ALMOENA**, in Ancient Geography, a town of Africa, placed by Ptolemy in Bizzacim, ten leagues to the east
touth-east of Ticinua. Almoena is now Telemaen, and Ti
china, Tekewfe. Shaw's Travels, p. 126.

**ALMÓGIZA**, among Arabian Writers, denotes the
limb or circumference of the astrolabe.

**ALMOMHARAM**, in Ancient Chronology, was the first
month of the Arab year. On some occasions the observance
of this month was put off to the following month Safar.

**ALMOHEDES**, in History, the name of an African dy
nasty which succeeded that of the Almavides in Bar
bary, in the commencement of the 12th century. It took
its rise in the 25th year of the reign of Al Abraham, or
Brahms, who succeeded his father Ali, A.D. 1175; and
derived its name from an obscure founder, called Al Mo
hedi, or Al Mohedes. This person was a Berber, of the tribe
of Muzamada, named Abdallah, and was a famous preacher
among thieves of his tribe, who were settled along Mount Atlas.
In order to secure success to the design he had conceived, he
assumed the title of Mohdi, or Mohded, and set up for the
head or leader of the Orthodox, or Unitarians, who were
now become so numerous by his preaching, that he pre
sumed to bid defiance even to his sovereign. Brahms was
too much immersed in pleasure to regard the revolt, and too
confident of his own security to apprehend any danger from
the insurrection of a party composed of perfons whom he
looked upon with contempt. But their unexpected increase
alarmed him, and he prepared for baffling them. His force,
however, was insufficient for the purpose, and in his first en
gagement he was totally defeated. Abdallah was wary, and
secured the capital; so that Brahms, pursued as a fugitive by Abdolumnen, one of the party, was obliged to seek re
fuge in the city of Fez. But the gates of the city were not
only shut against him, but opened to receive his pursuers.
The next place to which he repaired was Aurun, ororan,
but the city was soon invaded by Abdolumnen, and threat
ened with fire and sword. The magistrates, unable to de	end themselves, and dreading the consequences of an hostile
attack, urged him to leave the town. Under the shelter of a
dark night he, with his favourite wife on horseback behind him,
det out from Orân, but they were discovered and pursuced; and
fearing to fall into the hands of their enemies, he spurred
his horse in a fit of despair, and leaped down a precipice,
where he and his wife were dashed to pieces. Such was the
fatal end of this prince, whose death put a final period to
the empire of the Almavides. As soon as Abdolumnen,
vulgarily called Abdulman, was apprized of Brahms's death,
he traversed the kingdom of Tremecen in his way to Mo
rocco, where, Abdallah being dead, he was declared his suc
cessor by the chiefs of the party, and proclaimed king of the
Almavides, under the title of Al Emir Al Mumen Abdallah
Mohammed Abdal Mumen Ebn Abdallah Ismi Ali, i. e.
chief or emperor of the true believers of the house of Mo
hammad Abdal Mumen, the son of Abdal Mumen, the son
of Abdallah of the lineage of Ali. Abdallah's reign was
long enough to allow his enacting some prudent regulat
ions for the establishment of his fed and his new kingdom,
which he left behind in his will. He appointed a council of
40 disciples of his seat, all of whom were preachers; some
of these were commissioned to regulate all public affairs, and
at proper feasons to be itinerant preachers in the country,
for the diffusion of their doctrine; and others of them, to
the number of 16, were to act as secretaries. From the
former of these two classes the successors to the regal and
pontifical throne were to be elected, for both these dignities
and titles were to be united in the same person. The disci
ples of this sect were denominated Mohamiddin, or Al
Mohaddin; but by the Arabian writers they are styled only
preachers, and by the Spanish, Al Mohedes; and the de
fendants and successors of that tribe continued to retain the
appellation of Emir Al Mumenin, or chiefs of the faithful
or true believers, as long as their dynasty lasted; and they
became very powerful both in Africa and Spain. As to
their religious tenets, if we except their specious pretence
to orthodoxy, and strict adherence to the doctrine of the
unity of God, which they zealously inculcated, they had
little or nothing peculiar to themselves; but they were loud
in their reproaches against the tyranny of the Almavides,
and in their clamours for liberty; and thus they allured the
greatest part of the kingdom to revolt, and to embrace their
feeds and doctrine.

The new sovereign, on his accession to power, extin
guished the Almavide line by strangling Isaac, the son of
Brahms, and extirpated all the unhappy remains and adhe
rents of this race. During the progress of this revolution,
several of the Almavide governors, availing themselves of
the distraction and tumult that prevailed, erected their go
vernments into independent principalities and petty king
doms; and those who inhabited the mountainous parts es
tablished a variety of lordships under their own chiefes. The
Nubians and Libyans took the lead, and others followed
their example; particularly the states of Barbary, Tripoli,
Kairwan, Tunis, Algiers, Tremecen and Bugesia, each of
which had its own sovereign. Abdolumnen, however, pur
sued his conquests with fecetts, and in a few years reduced
the Numidians and Galatians in the west, and the kingdons
of Tunis, Tremecen, and the greatest part of Mauritania and
Tingita, under his subjection. He likewise disposed of the
Christians of Moheida, the chief city of Africa, and some
others on the same coast, and made other conquests both in
Spain and Portugal. He died in the seventh year of his
reign, and was succeeded, A.D. 1156, by his son Yufef, or
Josepf. Yufef was a valiant and martial prince; and having
established the kingdons of Tunis and Bugesia in their respec
tive kingdons as his tributaries and satellites, he prepared to
embark for Spain to affound the Moorish princes, who follici
ted his protection and succor. Yufef was succeeded by Yakub,
or Jacob, surnamed Al Mansur, or the conqueror, who, after
securing himself against both the revolted and the plundering
Arabs, pursuad his conquests with suspect speed and succets,
that in a little time he became master of the whole country
lying
Lying between Numidia inclusive, and the entire length of the Barbary coasts from Tripoli to the kingdom of Morocco, comprehending also those of Fez, Tremeen, Tunis, and Tripoli, and extending above 1200 leagues in length, and in depth from the Mediterranean to the sandy deserts of Libya, above 480, exclusively of his Spanish dominions, where he was acknowledged as sovereign by most of the Arabian Moorish princes. The clofe of this prince’s history is wrapped up in obscurity; for about the year 1206, having quelled a revolt in Morocco, and violated his faith with the governor of the capital which he reduced, and his adherents, in the most perfidious and cruel manner, he disappeared; and, as it is laid, touched with remorse in the recollection of his conduct, wandered about obscurce and unknown, and at last died a poor defpifed baker at Alexandria. He was succeeded in the kingdom by his fon Mohammed, faminained Al Nakor, who, on his accession to the crown, passed over into Spain with a very large army, confacing of more than 120,000 horse, and 300,000 foot, and engaged the whole force of the Christians on the plains of Tholos, where he was totaly defeated with the loss of above 150,000 foot, 30,000 horse, and 50,000 prisoners. This famous battle was fought, according to some Arabic writers, in the year of the Hegira 609, A. D. 1212; but, according to the Spanish and other historians, in 617, A. D. 1220. After this defeat he returned to Africa, where he was received with coldnefs and difpofed, and foon died of vexation, having appointed his grandfon Zeyed Arrax to succeed him. Al Zeyed was foon affimilated by order of Gomaraan Ebn Zeyen, of the tribe of the Zeneti, a descendant of the Aboldivates, ancient monarchs of the kingdom, but at this time vaffals to the Almohades; and with him terminated the dy-nasty or government of the Almohades, after having held it for about 170 years; which was succeeded by that of the Benimerini, another branch of the Zeneti. Thafe lat; hav-ing held the government during the space of 177 years, enlarged their conquests, and enriched themselves by frequent incursions not only into all the neighbouring kingdoms; but even Nubia, Libya, and Numidia were at length swall-owed up by the general inundation of Mohammedin. Mod. Un. Hift. vol. xiv. p. 301—316.

ALMOI, in Geography, a town of Pruffia, in the province of Natangen, eight leagues south-west of Ralten-burg.

ALMOIN, in Law. See FRANK Almoin.

ALMON, in Antient Geography, a town of Judaea, in the tribe of Benjamin, afsigned by Jofhua to the Levites of this tribe who were of the family of Aaron.

ALMON, a town of Greece, in Eeotia; and also a town or district of Thifalby.

ALMONACID, in Geography, a town of Spain, in Old Caffide, three leagues south-east of Toledo.

ALMOND, African, in Botany. See BRAEIIUM.

ALMOND, Dwarf and Tree. See AMYGDALUS.

ALMOND, in the Materia Medica, is a kind of fruit which is the produce of the almond-tree, or Amygdalus Communis. There are two principal varieties of this tree, diñfinguished by the quality of the fruit; and hence we obtain two kinds of almonds, viz. the sweet and the bitter. Neither the kernels themselves, nor the trees that produce them, allowing for some difference in the size of the flowers and fruit, are distinguishable by the eye; and it is laid that the fame trees, which in a wild state bore bitter almonds, have, when cultivated, afforded the sweet kind; and that the sweet, for want of culture, have degenerated into bitter. The almonds which we receive from Barbary, where the tree is indigenous, are bitter; and those of Europe and of other parts, where it is cultivated, are in general sweet. In the choice of these kernels, particularly those of the sweet fort, care should be taken, as they are very apt, on account of the oil with which they abound, to become rank in keeping, and to be preyed upon by an insect, which eats out the internal part, and leaves the almond apparently entire.

Sweet almonds are, for most purposes of medicine and diet, blanched, or freed from the outer, thin, acrid skin, by steeping them in hot water till it is sufficiently softened to be peeled off. Sweet almonds are more used as food than as medicine, and like others of theacea tribe, or oily nuts, they are considerably nutritious; but they are said to be of difficult digestion, unless they are extremely well comminuted. Dr. Cullen suggests, that this inconvenience, noticed by Dr. Lewis, may be in a great measure obviated by a very diligent trituration, uniting very intimately the farinaceous and the oily part. As medicines, they contribute, by their soft unctuous quality, to blunt acrimonious humours in the fist paffages, and thus sometimes give present relief in heart-burns and familiar complaints. Their medicinal qualities depend upon the oil which is blended with the farinaceous matter, and which they yield, on expression, nearly in the proportion of half their weight. Murray says, that 55 pounds of unpeeled almonds have yielded, by cold exprefion, one pound fix ounces of oil; and afterwards, on heating the almonds, three quarters of a pound. This oil is more agreeable to the palate than most other expreffed oils, and is therefore preferred for internal ufe, in order to obtain acrid juices, and to soften and relax the solids, in tickling coughs, hoarfeness, coughs, nephritic pains, &c. and externally in tension and rigidity of particular parts. The milky solution of almonds in water liquors, usually called emulsions, poifeys in a degree the emollient qualities of the oil, and are prescribed with the fame intention, particularly in heat of urine and stranguries; and they are also given as diluents in acute difeafes, and for supplying the place of animal milk, to which they bear a great analogy. These emulsions are formed of a due confidence, with the proportion of an ounce of almonds to a quart of water, which should be gradually poured in after the almonds have been fift thoroughly pounded; and the London College directs the addition of gum arabic, which renders it a still more useful demulcent in catarrhal affections, stranguries, &c. But if the water is heated for fuffening the solution of the gum, it should fand to grow cold before it is poured on the almonds; otherwife the emulsion will be imperfect. Sugar, or fome other grateful material, is commonly added, in order to make the liquor more palatable. The oil, after being exposed for a few days in a heat equal to that of the human body, becomes rank and acrimonious. Emulsions, on standing for fome hours, throw up a white cream on the surface, and the whey-like liquor underneath grows not rank but four. The latter are therefore preferred in inflammatory difeafes, because they are not subject to become acrid and irritating by the heat of the body, but tend rather to a flatte in which they may ferve to abate inflammation. Acids, mixed with emulsions, separate the oily and fcreous parts, and produce a thick curd, much after the fame manner as they do in milk. A more permanent emulsion may be formed by triturating the pure oil with a thick mucilage of gum-arabic, from which the oil will not separate on standing for fome days, nor on the addition of acids, though it may be speedily difengaged by alkalies, both fixed and volatile. One part of gum, made into a mucilage with an equal quantity of water, is fufficient for four parts of the oil. The white
Bitter almonds yield a large quantity of oil similar to that of sweet almonds, and they are alike miscible with water into an emulsion. The oil has no bitterness, and that of either fort is used indiscriminately for medicinal purposes; but the matter remaining, after the expression of the oil, is more powerfully bitter than the almond itself. Great part of this bitter matter dissolves by the action of heat, both in water and in rectified spirit, and a part also arises with both menstrua in distillation. These almonds, and emulsions of them, have been recommended as aperients, resolvents, diuretics, and anodynes; but though they may in these respects be of some use, they are remedies of too dangerous a kind for common practice. When taken freely in fishes, they occasion sickness and vomiting; and they have been long known to be poisonous to various brute animals, as wolves, foxes, dogs, cats, and several sorts of birds; and from the sudden effects which this poison produces, and the convulsions and spasm which follow the exhibition of it, there can be no doubt of its acting directly on the nervous energy. Some authors have alleged, that they are also deleterious to the human species. However this be, as their noxious quality seems to reside in that matter from which they derive their bitterness and flavour, it is probable that when this is separated from the fœtid substance by distillation, and taken in a sufficiently concentrated state, it may prove a poison to man, as is the case with the common laurel, to which it appears very analogous. One small drop of this essential oil convulsed, and in two minutes killed a sparrow. These almonds were formerly eaten to prevent the intoxicating effects of wine, and Plutarch (Sympos. lib. i. apud op. tom. ii. p. 624) relates, that the physician of Drusus, the son of Tiberius, took five or six bitter almonds for this purpose. John Bakhin, from experiments made on porpoise, denies their having this power; and from twelve of them, we are told, that Lorry (De Venenis, p. 175) experienced the same effect of inebriation. They are highly commended by Theophrastus (Nov. Act. Nat. Car. tom. i. p. 181) for the cure of hydrophobia from the bite of a mad animal, who found them effectual in 12 cases, in which some were eaten every morning for one or two weeks. Bergius says, (Mat. Med. p. 433.) that bitter almonds, in the form of emulsion, cured obturate intermittent, after the bark had failed. Having diffused two drams of soluble tartar, and an ounce and a half of honey in a pound of water, he made an emulsion with this water, and one ounce of bitter almonds. Of this emulsion he gave, during the intermission, a pound or two every day, and says, that by this remedy, the recurrence of the fits was prevented. In cases where this failed, and in which he had recourse to the bark, he mixed with the decoction of the bark the bitter emulsion; and he adds, that he had seen intermittent fevers frequently recurring, and which had entirely refilled the bark, at length totally cured by the bitter emulsion alone. This is a remedy, however, which should be used with great caution. Lewis, Cullen, Murray, and Woodville.

Ands give the denomination to a great number of preparations in confectionary, cookery, &c. of which they are the basis; as almond-cakes, almond-cream, crisped-almonds, almond-milk, almond-paste and powder, almond-flour, &c. Almond-milk is an emulsion or mixture made of one and a half ounce of sweet almonds, half an ounce of double-refined sugar, and two pints of distilled water. The almonds are beaten with the sugar, then rubbing them well together, add the water by degrees, and strain the liquor. There is a preparation also called almond-butter, made of cream and whites of eggs boiled, to which are afterwards added blanched almonds, and the whole is set over a slow fire till it becomes thick. Almonds, in Geography, a river of Scotland which runs into the Frith of Forth, five miles west from Leith. Almonds, in Commerce, a mixture by which oil is sold in Portugal, 26 almonds making a butt or pipe. Almond is also a fruit which serves instead of small money, in several parts of the East Indies; particularly where the cassias, those small shells which come from the Naldivies, are not current. Almonds, amygdala, in Anatomy, denote two mucous glands, in size, shape, and inequality of surface, not unlike a small almond. They are situated in the posterior aperture of the fauces, or the opening by which the cavity of the mouth communicates with the bag of the pharynx. They are more commonly called tonsils, to which title we refer for further information.

Almond, of Alman-carneaux, fourneau d'Allemagne, the common melting furnace of the German refiners. See Furnace. Almonds, amando. Thus the French lapidaries and looking-glass makers call those pieces of rock crystal, or rock crystal, which they cut with a wheel, giving them a figure something like that fruit. They are used to adorn branch-candlesticks, and other furniture made of glass or crystal.

ALMONDBURY, in Geography, a village of the West Riding of Yorkshire, 16 miles from Halifax, and 185 from London.

ALMONDSBURY, a village in Gloucestershire, where Almond, father of Egbert, the first sile monarch of England, is said to have been buried. It has a Saxon fortification, with a double ditch, which commands an extensive view of the Severn. It is eight miles from Bristol. Almoner, anciently also written Amner, an officer in a king's, prince's, or prelate's household, whose business is to distribute alms to the poor.

The lord almoner, or lord high almoner, of England, is an ecclesiastical officer, usually a bishop, who is to visit and relieve the sick, poor widows, prisoners, and others in necessity, for which purpose he has the forfeiture of all deadlands, and the goods of the de fe de se, which he is to dispose of to the poor.

He has likewise, by an ancient custom, a privilege to give the first dish, from the royal table, to whatsoever poor person he pleases; or, instead thereof, an alms in money.

He also distributes to twenty-four poor men, nominated by the parishioners of the parish adjacent to the king's palace of residence, to each four pence a day in money, and an alms of bread and small beer; each person first repeating the Creed, and the Lord's prayer, in presence of one of the king's
king's chaplains, depated by the lord almoner to be his sub-
almoner, who is also to scatter new-coined twopences in the
towns and places through which the king passes in his pro-
gress. See Maundy Thursday.

He has also the charge of several poor penitents to the
crown below flairs; confiding of such as have spent their
youth, and become superannuated, in the king's service;
or the widows of such household servants as died poor, and
were not able to provide for their wives and children, whom
he duly pays. Chamberlayne's State of Great Britain,
p. 396.

Under the lord almoner, besides the sub-almoner, there is
a yoeman, and two grooms of the almoner, chosen by his
lordship.

The French kings used to have their great almoners, first
almoners, ordinary or quarterly almoners, &c.

Great almoner, grand almoner, was the highest ecleciastic-
tal dignity in that kingdom. To him belonged the su-
perintendency of all hospitals, and houses of lepers. The
king received the sacrament from his hand. He laid mafs
before the king, in all grand ceremonies and solemnities.

Almoner is also applied, in Ecclesiastical Writers, to the
deacons of churches.

Almoner is also used, in Historians of the Middle Age, for
him appointed by a person to distribute his alms to the poor.
In this sense, almoner amounts to much the same with what
has been since denominated executor.

Almoner is also sometimes used for a person who left
alms to the poor, by his last will.

Almoner is also sometimes used for a legatee.

In this sense, it is the rule, that the same person could
not both be almoner and heir.

Almoner is also a more fashionable title given, by some
writers, to chaplains. In this sense we meet with almoner
of a ship, almoner of a regiment.

Almonry, or Aumbry, the office or lodgings of the
almoner; also the place where the alms are given. See
Aumbry.

Almonte, a neat town of Spain, in the country of
Seville, environed with a forest of olives; 13 miles south-
east of Moguer.

Almone, a river of Spain, which runs into the Tagus,
not far from Truxillo.

Almopia, in Ancient Geography, a country of Ma-
cedonia, inhabited by the Almopians, in which flood the
cities of Europus, Abanopolis, and Apalus. Thucydides
mentions Almopia, and Phry the Almopian; and it is laid to
have derived its name from Almops, son of Neptune and
Helle, the daughter of Athamas.

Almora, in Geography, a country of Asia, between
the mountains of Thibet and Hindoltan, north of the pro-
vince of Rohlund. The principal towns are Rampour and
Coffinour.

Almoravides, in Hisry, a name given by the
Spanish historians to an Arab tribe, which took possession
of a district of Africa in order to live at their ease, and in a
state of retirement, as they pretended to follow the dictates
of the Koran more closely than others of their sect, from
whence they took the name of Morabites, which the Spa-
niards changed into that of Almoravides. The first prince
or chief of this nation was Abuteker Ben Omar, who is
commonly called by Spanish authors Abu Texfien or Tex-
fiain. This prince founded the dynasty of the Almoravides
in Barbary, A.D. 1051, by the aid of a powerful army of
malecontents in the provinces of Numidia and Libya, assem-
bled by the influence of the Marabouts or Morabites, whence
the appellation was derived. Texefian, as we have shown
in the history of Algiers, was succeeded by his son Yufe-
or Joseph, who, after having extended his conquests in
Africa, and reduced the kingdom of Tremeric, Fez, and
Tunis, to a state of tributary vassalage, took advantage of
the interline wars in Spain, and passed over, with a view of
enlarging his conquests, into that country. Here he re-
pulsed the Christians with great vigour; and though the
Moorsish princes did not afford him the alliance which he
expected, he reduced the greater parts of the kingdoms
of Murcia, Granada, Cordova, Juen, and some few places in
Valencia; and then returned into Africa, leaving his con-
quered dominions under the government of his nephew Mo-
hammed, with a considerable part of his army. As soon as
he arrived in Africa, he published a general galleon, or reli-
gious war, and with a fresh and numerous army embarked
at Cutsa for his Spanish conquests, and soon rejoined his
nephew in Andalusia, which they ravaged with fire and sword.
In 1057, five years after their affaire, he made another deplorable,
penetrated into Portugal, and reduced the city of Lissivon,
with a great part of the kingdom, but left the cities of Al-
guizar and Gibraltar, which he had taken before. Having
been defeated at sea in his way to Barbary, he proposed a
truce, which was agreed to on condition that he should sub-
mit to become the tributary of the Spanish monarch.
Yufe, the Almoravide prince, was so exasperated that he
vowed never to yield until he had utterly exterminated Chris-
tianity in Spain. Accordingly he prepared for a fresh de-
fect; and landing at Malaga, led his army into the enemy's
country with great fury and little prudence. The conver-
quence of this daily needful was a battle, famous in history,
called the Battle of the Seven Counts, in which, though
after great slaughter he gained a victory, he lost to great a
number of his own men, that he was obliged to return to
Africa, where he died soon after, at his capital of Morocco,
leaving the sovereignty to his son Ali, A. D. 1110. This
prince, less warlike than his father, employed his thoughts
in erecting sumptuous buildings, and in particular the great
mosque of Morocco, which he neglected his Spanish con-
quests. Alphonso, king of Aragon, was daily recovering
some considerable cities from him; and he was at last re-
duced to the necessity of passing over to Spain, for the fac-
cour of the Moorsish princes. But he was unsuccessful in
several expeditions; and in his last enterprise, though he had
the vigorous concurrence of the Moorsish chiefs, he was de-
feated and slain by king Alphonso, with the loss of 30,000
men, in the sixth year of his reign. He was succeeded by
his son Al Abraham, or Ibrahim, who pursued his pleas-
ures, and oppressed his subjects with taxes, which occa-
sioned dissatisfaction and complaint, and soon terminated in a
revolution, by which the government was transferred from
the tribe of the Almoravides to the Almoneders, in the
301.

Almou, in Geography, a town of Persia, in the pro-
vince of Taberistan, 32 leagues south-well of Pershad.

ALMS, ehemofyin, something given out of charity or pity
to the poor.

The ecclesiastics anciently subsisted wholly on alms.—The
alms of the primitive Christians were divided into three parts;
one whereof belonged to the bishops, another to the priests,
and a third to the deacons and sub-deacons. Sometimes they
divided them into four; the last of which went to the poor,
and to the repairing of churches.

The Romans left the extend the term alms to that which is
given to the church, or to other pious uses. Hence, what
the church holds on this footing is called tenet in alms.
Alms are of diverse kinds.

Alms, psaleb, eleemosyna psalebites, were those distributed at the solemnity of Easter, attended, in some places, with other acts of humility, as walking of feet, &c.

Alms, recensibiles, eleemosyna rationalis, a certain portion of the effects of persons dying intestate, set apart for the use of the church and the poor.

Alms of plough-lands, eleemosyna carucorum, or eleemosyna pro aris, was a tax anciently paid for the benefit of the poor, at the rate of a penny for each plough-land.

Alms of the king, denote what was otherwise called Peter's Pence.

These were sometimes also called alms of St. Peter.

Alms are divided by Mahometans into voluntary and legal.

Alms, voluntary, are those left to every man's discretion, to give more or less, as he sees fit.

The voluntary alms are properly denominated by the Arabs fiddkat, because they are a proof of a man's sincerity in the worship of God.

No religious system is more frequent or warm in its exhortations to almsgiving than the Mahometan. The Koran represents alms as a necessary means to make prayer be heard; and for which reason the Caliph Omar Ebn Abd'alaziz used to say, "that prayer carries us half way to God, but no more, till you bring us to the door of his palace, and alms procure for us admission." The Mahometans erected alms-deeds to be highly meritorious, and many of them have been illustrious examples of it. Hafan, the son of Ali, and grandson of Mahomet, in particular, is related to have thrice in his life divided his subsistence equally between himself and the poor, and twice to have given away all he had; and the generality are so addicted to the doing of good, that they extend their charity even to brutes, Alms, according to the prescription of the Mahometan law, are to be given of five things, i.e., cattle, i.e., camels, kine, and sheep; money; corn; fruits, i.e., dates and raisins; and wares fold. Of each of these a certain portion is to be given in alms; and that portion was usually one part in forty, or two per cent. of the value. But no alms are due for them, unless they amount to a certain quantity or number, nor till they have been in possession eleven months; nor are alms due for cattle employed in tilling the ground, or in carrying of burthen. However, at the end of the feast of Ramadan, every Mohammedan is obliged to give in alms, for himself and every one of his family, a measure of wheat, barley, dates, raisins, rice, or other provisions commonly eaten.

Alms, legal, are those of indispenisible obligation, as being commanded by the law, which directs and determines both the portion to be given, and the kind of things of which it is to be given.

The legal alms are properly called by the Mahometans vacei, either on account of their increasing a man's store, or of their purifying the remaining part of his subsistence.

Some writers have given these the denomination of tithes, but improperly; since, in some cases, they fall short, and in others exceed the proportion of a tenth. These legal alms were first collected by Mahomet himself, and employed, as he thought fit, in relieving his poor relations and followers, but chiefly in maintaining those who served in his wars, and fought, as he termed it, in the way of God. His successors continued to do the same, till, in process of time, other taxes and tributes being imposed for the support of the government, they seem to have been weary of acting as almoners to their subjets, and to have left the payment of them to their own confciences. In the Mahometan rules and practice with regard to alms, we may discover obvious traces of the resemblance of their system to that of the Jews. Sale's Koran, Preface, p. 110.

Alms, charity of, or charta eleemosynaria, that whereby a thing is given to the church.

Alms, amnons, among the French, is also used for a compulsory payment, imposed by way of punishment, to be converted to pious or charitable uses.

In all adjudications to the king's right, there is an alms referred. This amounts to what among us is usually called forsetiure to the poor.

Almsbox, or chaff, a small chest, or coffers, wherein anciently the alms were collected, both at church and at private houses. This is also in common use in several places.

The alms-chest, in churches, is a strong box, with a hole in the upper part, having three keys, one to be kept by the parson, or curate, the other two by the churchwardens.

The erection of such alms-chest in every church was introduced by an act in 27 Hen. VIII.; and it is enjoined by the Book of Canons, as also the manner of distributing what is thus collected among the poor of the parish.

Almsfeoh, or Almesfeoh, among our Saxon ancestors, alms-money; that is, Peter's Pence, anciently paid in England on the feast of August; called also romanfeok, romanfofe, and heart-panning.

Alms-Shaden, in Geography, a town of Arabia, 80 miles north-east of Hagiad.

Alms HOUSE, a petty hospital; or an edifice built by a person in a private capacity, and endowed with a revenue, for the maintenance of a certain number of poor, aged, or disabled people.

Almstad, in Geography, a town of Sweden, in the province of Smaland, three miles from the Baltic, and four miles from Christianstadt.

Almucantars, or Almicantars, formed of the Arabic almucantarchat, in Astronomy, are circles parallel to the horizon, imagined to pass through all the degrees of the meridian.

As the meridians pass through the several degrees of the equator, the almucantars pass through those of the meridian of any place, and they are the same with regard to the azimutus and horizon, that the parallels are with regard to the meridians and horizon.

They serve to show the height of the sun and stars; and are described on many quadrants, &c. being also called parallelis altitude.

Almucantars, also, an instrument usually made of penwite or box, having an arch of fifteen degrees; formerly used to take observations of the sun, about the time of its rising and setting, in order to find the amplitude, and consequently the variation of the compass.

Almucium, or Almution, in Middle-Age Writers, denotes a kind of cover of the head, part of it pendant over the neck and shoulder, worn chiefly by the ancient canons and monks.

The word is also written almucia, ammucia, almucella, armatica, and amicia.

The almucium appears to have been much the same with what is otherwise denominated caputium. The almucium, though proper only to religious, was sometimes also assumed by laymen, princes, and even women of quality.

The part which covered the head was of a square form, making, as it were, four horns, as may be seen from the ancient pictures of canons. Hence appears the origin of the square caps, bonnets, &c. still retained in cathedrals and universitites, which are no other than the upper part of the almucium, without the lower.

Almucia is also used, in some Ancient Writers, for the furs
furs or skins worn by the canons, on their left arms, in the manner of muff.

ALMUDHEBIS, in the Arabian Astrology, a kind of dignity, or pre-eminence, securing to a planet in some place, either from its disposition or benign aspect.

ALMUG-tree, a kind of wood mentioned in Scripture, imported by Solomon from Ophir, and used in the making of rails, or pillars of the temple. 1 Kings, ch. x. ver. 11, 12.

ALMUGEA, in Astrology, denotes a certain configuration of the planets, in respect to the sun and moon, correspondent to that which is between the hours of those planets, and the sun's and moon's hours.

Thus Saturn would be in the almagest of the sun, when distant from him the space of five signs in succession, or in the almagest of the moon, when he is at the same distance, only contrary to the succession of the signs.

ALMUGNA, in Geography, a large handsome village of Aragon, in Spain, situate at the junction of the Grito with the Xalon.

ALMUGNECAR, a sea-port town of Spain, in the province of Granada, situate on the Mediterranean, with a good harbour and strong citadel, eight leagues south of Alhama, and 18 miles of Malaga. N. lat. 36° 55'. W. long. 3° 45'.

ALMUM, in Ancient Geography, a district of Media, upon the Danube.

ALMUS. See ALMA.

ALMUTAZAPHUS, a magistracy of Aragon, whose office is to search houses for stolen goods, weigh the bread, measure the wine, &c.

ALMUTHIN, in the Arabian Astrology, the planet which has the disposal of a place, that is, surpasses the rest in the number and efficacy of dignities, regard being had to the essential points, viz. exaltation, terms, trigna, and phases. This is otherwise called almagest.

ALNABATI, in the Materia Medica, a name given, by Avicenna and Serapion, to the silique dulcis, or carob-tree. They called both this and the acacia by the common name carabub, or chabub; but they sufficiently distinguish this, not only by this appellation, but by telling us it was a gentle purge, whereas the other was aromatic.

ALNAGE, or AULNGAGE, French, formed of anno, or al, an ill, q. d. ill-measure; the measuring of wooden manufactures with an ill, and the other functions of the alnager.

All the attempts which our forefathers made for regulating manufactures, when left to the execution of any particular officer, in a short time resolved into a tax on the commodity without respect to the good or the evil thereof. As is most notorious in the case of alnage, which was intended for a proof of the goodness or the commodity; and to that purpose a seal was invented, as a signal that the commodity was made according to their statute; which seals, it is said, may now be bought by thousands, and put on what the buyers please. Sir Jof. Child's Disc. on Trade.

It is probable that the abusés here mentioned by Sir Jofiah Child did, among other reasons, give occasion to the claque of alnager duties, wholly taken away.

ALNAGER, Alnegere, or Aulnager, q. d. measurer by the ill, signifies a sworn public officer, who, by himself or deputy, is to look to the alnage of woollen cloth made throughout the land. I.e. the length, width, and work thereof; and to the seals for that purpose ordained. The office of king's alnager seems to have been derived from the statue of Richard I. A.D. 1197, which ordained, that there should be only one weight, and one measure throughout the kingdom; and that the custom of the alnage, or standard of weights and measures, should be committed to certain persons in every city and borough. This office is first mentioned in the statute-book, A.D. 1328: but it appears to have existed under this appellation, and to have been ordained by letters patent as far back as the 15th year of king Edward II. A.D. 1302. His business was, for a certain fee, to measure all cloths made for sale, till the office was abolished by the statute 11 and 12 Will. III. cap. 20. In more modern times, instead of the alnager, they have in every clothing town and parish proper persons called searchers, appointed by the clothiers themselves, who examine the qualities and dimensions of the several kinds of cloth, agreeably to the statute of the 4th and 6th year of king Edward V. cap. 6. Anderson's Com. vol. i. p. 181. fol.

ALNAPEST, in Geography, a mountain of Ireland, in the county of Donegal, 15 miles north-north-east of Ballyshannon.

ALNASI, in the Mahometan Law, the transferring the observance of a sacred month to a profane month.

ALNE, in Geography, a river of England, which runs into the Stour in Warwickshire, on the borders of Worcestershire, four miles north-east of Evesham.

ALNE is also a river which runs into the north sea at Alemouth.

ALNEMOUTH, or Alemouth, a sea-port town of England, for small vessels, in the county of Northumberland, which carries on a considerable trade with Holland, four miles south-east of Alnwick, and 15 north of Morpeth. N. lat. 55° 25'. W. long. 10° 35'.

ALENY, an English island, in the river Severn and county of Gloucester, near the city of Gloucester, remarkable for an interview between Canute the Dane and Edmund Ironside.

ALNIDENA, in Ancient Geography, a town of Caria, mentioned in the council of Chalcedon.

ALNI EFFIGIE, in Botany. See CRETUSUS and MESPILUS.

ALNFOLIA. See CLETHRA.

ALNI FRUCTU. See CONOCARUS and THEOBROMA.

ALNUSS, the alder. See BETULA and CONOCARUS.

ALNUS niger et baccifera. See RHANUS.

ALNUS also denotes a part in the ancient theatres, at the greatest distance from the stage.

ALNWICK, in Geography, a market town of England and county town of Northumberland, situate on the side of a hill near the river Aln. The town is populous, and in general well built; it has a large town-house, where the quarter-feis, and county-courts are held, and members of parliament are elected. Its principal ornament is an old Gothic castle, belonging to the Percy family. It stands on the brow of a hill above the river Aln, fronting the north, and having the town immediately behind it. The late Duke of Northumberland, after his marriage with the heiress of this noble family, refixed this castle from its decay, and restored it to more than its former splendour. He repaired the surrounding towers, and applied those that were wanting in all the several courts that encircled the mansion. He rebuilt the citadel in its original form, and converted it into a very superb palace, observing the Gothic exterior in every compartment, and uniting it with all the magnificence of the modern. The approach is extremely grand, through three gateways and two spacious courts, envisioned by the outworks, into a third court, which appears immured within the
the citadel. A light and elegant facade, spreading in the form of a fan, introduces to the grand range of apartments, which are admirably contrived. The dining-room, drawing-room, saloon, and library, are very noble rooms; and they are fitted up in a style which admirably corresponds with the structure. The richly ornamented chapel forms a splendid appendage to the castle. The ground in front of this building is well disposed, on each side of the Alcæ, which is crossed in sight by two handsome bridges, and the neighbouring hills are clothed with woods of the Duke's creation. On one of the highest eminences he has erected Briffy tower, commanding an extensive prospect over a bleak country towards the Cheviot hills on one side, and the coast on the other. Huile Abbeylangs beautifully over the river, and several neat apartments are intersected, with judgment and taste, among the ruins. This town has been noted for a singular custom, which those who take up their freedom are liable to be under a necessity of observing, which is that of jumping into a muddy well, called Freeman's Well; and this ceremony is conducted in a manner as singular. The freemen, on their return from this whimsical excursion, are received into the town by a procession of women dressed in ribbons, with bells and garlands, singing and dancing. This ceremony is said to be established by king John, who was reigned in this well, as a punishment for not keeping the roads in good order, and made a part of their charter. In this town Malcolm, king of Scotland, in his incursion into Northumberland, was killed, together with Edward his son, when his army was defeated by Robert Mowbray, earl of this county, A.D. 1292, and William, king of Scotland, when he invaded England in 1174, with an army of 80,000 men, was routed in this place, and made prisoner. The weekly market is on Saturday. The distance of Alnwick from London is 308 miles, from Morpeth 19, and from Berwick 30 miles. N. lat. 55° 24', E. long. 1° 10'.

ALO, a place situate, according to Ptolemæ, in the Marmarica.

ALOA, in Antiquity, a Grecian sea, celebrated in the month Poseidon by the Athenian husbandmen, in honour of Ceres, as inventors and protectors of corn and tillage, and in honour of Ceres and Bacchus, by whose blessing the husbandmen received the recompense of their labour. Their oblation was the fruits of the earth. Some say it was in commemoration of the primitive Greeks, who lived in the aloe, in their corn fields and vineyards. Harwood's Grecian Ant. p. 217.

The word is aloe, and formed of a, in, and o, orange, or barb; it being in those places that much of the holiness paffed.

Authors are not agreed as to the time or occasion of the celebration of the alao. Some suppose it to have been before the beginning of harvest; others will have it to have been a rejoicing after harvest, not unlike our HARVEST-FEAST.

ALOCIVÆ INSULÆ, in Geography, islands placed by Ptolemæ to the north of the Cimber Cherlonecus, or Jutland. ALOE, a town of India on this side of the Ganges. ALOE, in Botany, a genus of the becardria monogynia chief and order, of the natural order of Lilia or Liliaces, Commonly of Linn. and Aitbolde of Jaffien. It's characters are, that it has no calyx; the corolla is one-petalled, erect, fiddle and oblong, tube gibbous, border spreading and small, rectangular at the bottom; the flamina have awl-shaped filaments, as long as the corolla or longer, inserted into the receptacle, the anthers oblong and incumbent; the pistil is an ovate germ, the style simple, of the length of the flamina, the stigma obsolete and trident; the pelluripum is an oblong capsule, three-furrowed, three-
celled, and three-valved; the seeds are several and angular. Martyn enumerates 14 species with several varieties, Ómæn 16, and Willdenow 17. They are as follow, viz. 1. A. dichotoma, smooth-flesh'd tree aloe, with branches dichotomous, and leaves sword-shaped, and serrate, panicle of flowers, and flamina longer than the ovated corolla. The trunk is round, upright, very stiff, ash-coloured and smooth, two fathom in height, and of the thickness of a man's thigh. This is a native of the Cape of Good Hope on the mountain called Bockland, and was introduced into New Garden in 1780, by Mr. William Forthry. 2. A. perfollata, perfollata A with flesh-leaves toothed, embracing, flaxing, flowers in corylms, drooping, peduncled, and subbulbiferan; of this species there are the following varieties: viz. A. arktogleu of Miller, with leaves embracing, reflex, toothed, flowers cylindrical and stem with. This grows to the height of 10 or 12 feet, with a strong naked stem, embraced by the leaves which grow at the top, and are of a sea-green colour, and very succulent. The flowers are in pyramidal spikes, of a bright red colour, and are in beauty in November and December. 3. A. africane of Miller, broad-leaved sword A. with leaves broader, embracing, thorny on the edge and back, flowers in spikes, and stem with. 4. A. Barbadosa, Barbadoes A. with leaves toothed, upright, succulent, and fimbriate, yellow, hanging down in a thyrse. The leaves are about four inches broad at their base, and near two inches thick, of a green colour, and when young, spotted with white. The flower stem rises near three feet in height, and the flowers form a slender leafy spike, and are of a bright yellow colour. This, though generally known in the hothouses by the name of Barbadoes aloe, is very common in the other islands of America, where the plants are propagated on the poorest land for obtaining the Hepatic aloes. 5. A. succorina, A. vera of Miller, with leaves very long and narrow, thorny at the edge, and flowers in spikes. This is the true succotrina aloe, which yields the belt sort of aloe used in medicine. It grows in India, and particularly in the island of Socotora, in the Strait of Babelmandel. Its leaves are long, narrow, and succulent, and form large heads, about eighteen inches long, and an inch and a half at their base; the spikes rise to the height of three or four feet, and have two, three, and sometimes four of these heads branching out from them; the flowers grow in long spikes upon spikes about two feet high; they are of a bright red colour, tipped with green, and generally appear in the winter season. 6. A. purpurascens, with fleshed glaucous A. with leaves purplish beneath, with small roundish spots, at bottom. 7. A. glauca of Miller, red-tinged glaucous A. with stem short, leaves embracing, standing two ways, spines on the edges erect, and flowers growing in a head. 8. A. lineata, red-tinged striped A. 9. A. flox, great hedge-hog A. with leaves embracing, very dark green, beet with spines on every side. La Mareck makes this a distinct species. It rises to the height of eight or ten feet, with a strong stem; the leaves grow on the top, and closely embrace the spikes; four inches broad at the base, and diminishing gradually till they terminate in a spine; they are of a dark green colour, and beet with spines, which are red or purple. This plant grows naturally in Africa, but has not flowered in England, and as it does not put out suckers, it does not admit easily of increase. 10. A. satanaria, great foap A. foliden rises above two feet high; the leaves are broad at their base, closely embracing the spikes, and gradually decreasing to a point; their edges are beet with spines; the under leaves are horizontal, of a dark green colour, spotted on the side, resembling
fembling the colour of soft soap; the flowers are of a beautiful red colour, and appear in August and September. 4. A. obesa, common soap A. with leaves, broader, spotted, thorny at the edge, and flowers in spikes. This has broader leaves of a lighter green, with the edges and spikes copper-coloured, &c. 5. A. ferrifolia, hollow-leaved perfoliate A. with leaves spotted, finely ferrated at the edge and the tip of the keel. 6. A. speciosa, upright perfoliate A. with leaves flat almost upright, thorny at the edge, and on the lower surface. 7. A. depressa, short-leaved perfoliate A. with leaves embracing, thorny on both sides, and flowers in spikes. This seldom rises more than a foot high, and the leaves grow near the ground; they are of a sea-green colour, with some white spots; their edges are befit with sharp spines; and the flowers grow in loose spikes, the tubular part being red, and the brim of a light green colour. 8. A. hinnites, dwarf hedge-hog A. with leaves upright, subulate, radicate, with weak spines all round. This plant is low, and never rises into stem; the leaves terminate triangular, and are befit on their edges and surfaces with soft spines, whence the name of hedge-hog aloe. The flowers are seldom a foot high, below of a fine red colour, and of a pale green above. Wildenow makes a distinct species of this; /mlefs, with leaves trigonous, subulate, and scutate, and flowers racemose, reflex and cylindrical; and he makes two varieties. 9. A. muraeeum, great mitre A. grows to the height of five or six feet; the leaves converge towards the top in the form of a mitre, are succulent, of a dark green colour, and have spines on their edges, with a few on the upper surface: the flower stem rises about three feet high, and the flowers form a globular spike at the top, which becomes cylindrical; they have long peduncles, and the flowers hang downwards; they are cut to the bottom into five unequal segments; three of the filaments are as long as the tube of the corolla, the other three are shorter: the tube is of a fine red colour, and the brim of a pale green. 10. A. brevifolia, small mitre A.

3. A. arachnoidea, cobweb A. /mlefs, leaves three-cornered, cupped, ciliate, flowers in a fort of spike, upright, cylindrical. The varieties are: 11. A. arachno-communis, A. pumila, of Linn. sp. pl. 460, common cobweb A. with leaves short, plane, flabby, triangular at the end, and borders fit with soft spines. This never rises from the ground, but the leaves spread flat on the surface; the flower stem rises about a foot high, and has three or four small flat herbaceous flowers. 12. A. arachno-pumila, A. berbacea of Miller, A. pumila, of Linn. 460, with leaves ovate-lanceolate, flabby, triangular at the end, with numerous soft spines. This plant grows near the ground, the leaves are almost cylindrical at their base, and angular near their ends, of a darker green colour than those of the former; and produces many fuckers on every side. From the feed of this Mr. Martyn has raised a variety, which has shorter, whiter, and smoother leaves.

4. A. margaritisera, A. pearl, A. pumila, of Linn. 460, /mlefs, with leaves three-cornered cupped papillose, and flowers in racemes drooping and cylindrical. The varieties are: 13. A. marginata, major, great pearl A. 14. marginata, minor, and 15. A. marginata, leaf pearl A. The plant is of humble growth; the leaves come out near the ground, and they are closely ferrated with white protuberances, whence the name. These plants flower in several feasons of the year. 7. A. verucofa, A. disficha, of Linn. 459, warty or pearl-tongue A. /mlefs, with leaves froward-shaped, acute, papillate and diffich, and flowers in racemes reflex or club-shaped. This species has long narrow tongue-shaped leaves, hollowed above, and keel-shaped below, closely frownd with white protuberances; the flowers form loose spikes, and are of a beautiful red colour, tipped with green. It flowers at different seasons, and produces plenty of off-sfts. 6. A. carinata, A. dificha of Linn. 459, /mlefs, with leaves acinaiform, papillate, and flowers in racemes, drooping, curved. The leaves are broader and thicker, not so concave, and with legs protuberances than the last; the flowers are of a paler colour, and the leaves shorter. 8. A. maculata, spotted A. almost /mlefs, with leaves acinaiform, smooth, painted, and flowers in racemes drooping, curved. There are two varieties. 2. A. mac. pulchra, narrow-leaved, spotted A., with leaves sharp, and 2. A. mac. obliqua, broad-leaved spotted A. with leaves blunt with a point. This species varies, with large, oblong, white confluent spots, and with small ones. It is a native of the Cape of Good Hope, and flowers in August. 9. A. lingua, or linguaformis, tongue A. almost /mlefs, with leaves tongue-shaped, tooth-letted, smooth, diffich, and flowers in racemes, upright and cylindrical. There are two varieties: 2. A. lingua angulifolia, A. dificha, of Linn. 459, common tongue A. with leaves narrower longer; and 2. A. lingua crassifolia, thick-tongued tongue A. This grows with its leaves, which are about six inches in length, near the ground. The flowers are red below, and green above. It is a native of the Cape of Good Hope. There is a variety, with leaves much more spotted. 10. A. plieatilla, A. dificha, A. plieatilla of Linn. 459, Kunzara dificha Medic. This fan A. almost /mlefs, with leaves tongue-shaped, even, diffich, and flowers in racemes, pendulous and cylindrical. It grows to the height of five or six feet, with a strong stem, on the upper part of which are produced, two, three, or four heads composed of long, compressed, pliable leaves of a sea green colour, which are placed in a double row: the flowers are red, and appear at different times of the year. 11. A. variegata, partridge-breast A. almost /mlefs, with leaves in three ranks, painted, channelled, angles cartilaginous, and flowers in racemes, cylindrical. This is a low plant, seldom rising above eight inches in height; the leaves are triangular and reflex at their extremity, flabby, with their edges slightly ferrated, curiously veincd and spotted, like the breast of the partridge, whence the name. The flowers which grow on flacks about one foot high, are of a fine red colour, tipped with green. A variety of this was raised by Martyn, from seeds received from the Cape of Good Hope, with broader leaves, and not so beautifully spotted, with the flower flacks much taller. It is found in the clayey grounds of Ethiopia. 12. A. coeca, upright triangular A. sub-calcefcent, with leaves imbricate, in three ranks, ovate, and flowers in racemes, drooping, and cylindrical. It grows near a foot high, with triangular leaves from the ground upward, of a dark green colour, and the flowers are of an herbaceous colour, with their upper part reflex. It is a native of the fields of the Cape of Good Hope. 13. A. spiralis, spiral A. sub-calcefcent, with leaves imbricate, in eight ranks, ovate, and flowers in racemes curved back. There are two varieties: 2. A. spir. imbricata, imbricated spiral A. and 2. A. spir. penagonas, five-sided spiral A. This grows like the 11th, with rounded leaves, ending in sharp points; and the flowers grow upon taller stems; a variety of this has been raised from seeds, much larger, with thicker leaves and taller stem. It is a native of the fields of Africa. 14. A. retusa, cumbion A. /mlefs, with leaves in five ranks deltoid. These are short, thick and succulent, and compressed above like a cumbion, whence the name. It grows close to the ground, and puts out fuckers on every side; the flowers are of an herbaceous colour, and much resemble those of the
the fourth species. It grows in the clayey soil of Africa. 14. A. \textit{spicata}, spicèd A. with flowers in spikes horizontal, bell-shaped, and item-leaves, flat, embracing, and toothed. This much resembles the second species, but is very different in the spike and figure of the flowers. The flower is full of a purple honey juice. The bell and purest hepatic aloes is obtained from this species. It is found in the interior regions of the Cape of Good Hope. 15. A. \textit{pigra}, painted A. caudicent, with leaves sword-shaped, toothed, painted and pendent, and flowers in racemes, reflex, and cylindrical. There are two varieties; \(a\). \textit{A. major}, \(b\). \textit{p. foliata}. 3. \& \(a\). Linm. 458. \(b\). A. minor, \(b\). \textit{foliata}, \(a\). \textit{p. foliata}, \(b\). \textit{p. foliata}, \(c\). \textit{p. foliata}. 4. \textit{p. foliata}, \(a\). \textit{p. foliata}, \(b\). \textit{p. foliata}, \(c\). \textit{p. foliata}. 5. It is a native of the Cape of Good Hope. 16. A. \textit{finifolia}, caudicent, with leaves sword-shaped, incurve-ferrated and reflex, and flowers in racemes, erect and cylindrical. This is the \(A. p. foliata\) \(b\). Linm. 458, and it is suggested by Willdenow that it is the \(A. p. foliata\) \(a\). barbadensis of Aiton, Linm. 1. p. 466, and the narrow-leaved \(p. p. p.\), \(a\). \textit{fucosa} of Corn. Holt, \(a\). p. 91, and the \(A. americana\), with the reddish flowers of \(a. t.\), of Pluknet. It is a native of Barbadoes and the Cape of Good Hope. Martyn’s Miller, Gaerlin’s Lineus, Willdenow.

La March enumerates 31 species, \(v i e\). A. \textit{purpurata}, or A. of Bourbon, originally brought from that island: when the leaves are cut, they yield a juice of a vivid red. 2. A. \textit{fucosa}. 3. A. \textit{volgeri}, Kadanuki or Ocaseva of Rhode, growing in the sandy flaky soil of Mahbar, and many parts of India, and also in several provinces of Africa, as Mexico, New Spain, Brazil and Barbadoes; and yielding, by its purified juice, heptic aloes, and from its dregs a less pure extract, called Cabalhue aloes. 4. \textit{p. vera}, growing in India, of which the \(A. \textit{cabulana}\) of Forck, Egypt, 74. n. 34, is a variety. 5. A. \textit{filifolia}, brought from Africa by Bruce, and larger and more reinosus than the preceding species. 6. A. \textit{filifolia}, or arborea of Miller. 7. A. \textit{fucosa}. 8. A. \textit{miriformis}, of which there is a variety, \(A. \textit{miriformis}\) \textit{angustifolia}. 9. A. \textit{maculata}, or the \(A. \textit{sp.}\) above mentioned. 10. A. \textit{tenan-

Aloes, whose refinings part is not soluble in water, has been used as a preferable to ships’ bottoms against the worms, to which those that trade to the East and West Indies are particularly subject. One ounce of aloes is sufficient for two superficial feet of plank, about 12 lb. for a vesel of 50 tons burthen, and 300 lb. for a first rate man of war. It may be incorporated with six pounds of pitch, one of Spanish brown, or whitting, and a quart of oil; or with the same proportion of turpentine, Spanish brown, and tallow. Such a coat, as it has been said, will preserve a ship’s bottom eight months, and the expense for a first rate ship, will be about 133. The fame composition may be used in hot countries for preserving rafters, &c, from the wood-ant. The efficacy of aloes, as a defence against worms, has been controverted. See ALOES, infra.

Propagntion and Culture.—The soil in which these plants thrive best, is one half fresh, light earth, from a common; and if the turf is taken with it, and rotted, it is much better; the rest should be white sea-fand, and sifted lime-rub-bish, each of these two, a fourth part; mix these together fix or eight months at least before it is used, observing to turn it over often in this time. The middle of July is a very proper season to plant the plants; at which time you may take them out of the pots, and with your fingers open the roots, and shake out as much of the earth as possible, taking off all dead or mouldy roots, without woundings the young fresh ones: then fill the pot about three parts full of the above mentioned earth, putting a few stones at the bottom of the pot to drain off the moisture; and after dipping the roots in such a manner as to prevent their inter-ferring too much with each other, put in as much of the fame earth, as to fill the pot almost to the brim, shaking the plant so as to let the earth in between the roots, and setting it close to the roots with your hand to place it steady in the pot; then water them gently, and set them abroad in a shady place, where they may remain for three weeks, giving them gentle waterings, if the weather be hot and dry.
Toward the latter end of September, in a dry day, remove them into the house again, observing to give them as much free open air as possible, while the weather continues warm: but if the nights are cool, you must shut up the glaffes, and give them air only in the day; and as the cold increases, you must difcontinue opening the glaffes, only giving them gentle watering till the middle of October, when you must abate them according to the heat of the house in which they are kept. For those plants which are placed in a flove will require to be watered at half once a week, most part of the Winter, whereas thoese which are kept in a green-house, without artificial heat, should not be watered in the Winter oftener than once in a month, and in Summer they should not receive too much moisture.

The tender sorts, as the viocofa, ferox, and cobweb aloe, should constantly remain in the flove, or be removed in the Summer to an airy glass-eafe, where they may have free air in warm weather, but be protected from the rain and cold. With this management the plants will thrive and increase; and such of the as finally bear flowers, may be expected to produce them in beauty at their season.

Most of these aloe are increased by off-fets, taken from the parent plant when they are fluffed, and planted in small spots filled with the earth prepared for the old plants; and these suckers should be quite dry when they are planted, otherwise they will rot. After remaining in the shade for a fortnight, the tender kinds should be removed to a very moderate hot-bed, shading the glaffes in the day, and giving them much air.

Towards the middle of Auftust, the young plants may be hardened by taking off the glaffes in good weather, and admitting the air; and they should be removed into the house towards the end of September, and managed like the old plants. The African aloe generally afford plenty of suckers for increase: most of the others may be propagated by taking off some of the under leaves, laying them to dry for ten days or a fortnight, and then planting them in the foil already mentioned, by putting that part of the leaf which adhered to the old plant, about an inch or an inch and a half, into the earth, and setting the earth about them with a little water: the pot should then be plunged into a moderate hot-bed, preferred from the sun, and refreshed with water once a week. The best season for this operation is June. The method of cultivating the aloe in the island of Barbadoes, described in the Medical Journal (vol. viii. art. 8. p. 422.) is as follows. The fomy and shallow foil, which is in the vicinity of the sea, and subject to drought, and in which the fugar canes wilt not thrive, built fuits the aloe plant. When the fomes have been picked up, and laid around the field as a fence, or piled in heaps upon the moft barren spots, the land is lightly ploughed and cleared from weeds; then lined in rows at the distance of a foot from one another, and the young plants are fettle like cabbages, about five or six inches apart from each other. By being thus set, they are easily kept free from weeds, which would obftruct the produce. They may be planted even in the drieft feaon; as they need little or no rain; but the usual time is from April to June.

Aloes, in Medicin and Pharrnacy, the infiltuated juice of various fpecies of the Aloes above defcribed. Of this there have been usually reckoned three kinds, viz. the fo-TOVIS, hepatic, and cabinetic. 1. SapoTivus aloe, so called from the island Socotra, from which it was firft brought, though it was probably imported from the Cape by the Dutch East India Company, is obtained from a variety of the A. perflicilia of Linnaeus. This fорт is the purple and most perflicilig, it comes to us wrapt in skins, and is of a bright, furface, and in some degree pellucid; in the lump of a yellowish red colour, with a purplifh cast; when reduced into powder of a golden colour. It is hard and friable in the Winter, somewhat palable in the Summer, and fensitive between the fingers. Its bitter taffe is accompanied with an aromatic flavour, but not fufficient to prevent its being disagreeable; the smell is not very unpleasant, and somewhat refembles that of myrrh.

2. Hepacic, Barbadof, or common aloe, is obtained from another variety of the fame fpecies, viz. A. vera, vulgaRis, Aloe, aloe, Aloe, aloe., called by Rhed. lapandum or cotton, and reckoned by L. Marek a different fpecies, and is usually brought to us from Barbadoes; that of the belt fort in large, gourd fheels, an inferior kind in pots, and a flill worfe in casks. It is of a darker colour than the former, and not fo clear or bright; generally drier and more compact; of a stronger and more disagreeable smell, and of an infinitely bitter taffe, with little or nothing of the aromatic flavour of the other.

A tract of mountains about 50 miles from the Cape of Good Hope is wholly covered with the aloe plants, which renders it uneceffary to plant them there; but they are now cultivated in Jamaica and Barbadoes, having been firft brought to the former of these islands from Bermuda. They require two or three years flanding before they yield their juice in perfection; and it is procured, fays Dr. Browne, (Jamaica, p. 165.) in the following manner. The labourers go into the field with tubs and knives, and cut off the large and moll fucculent leaves close to the falks; they put into the tubs in an upright posture, that the loofe liquor may be drained from the wound. When this is almoft wholly defcharged, the leaves are taken out fingly, and cleared of any juice that may adhere to them; and the liquor is put into shallow flat-bottomed vefefls, and dried gradually in the sun, till it acquires a proper confistence. What is obtained in this manner is called foTOVIS aloe, and is the cleareft and moll tranparent, as well as the higheft in feflem and value. In the island of Barbadoes, according to the account of Mr. Millngton (Med. Journ. vol. viii. p. 422.) after a fufficient quantity is drained from the leaves to make it an object for the boiling-house, the juice with this view may be preferred for fome weeks, without injury, three boilers of iron or copper are placed by one fire, though fome have two and others only one; these are filled with juice, and as it is gradually infiltuated by a regular fire, it is ladled from boiler to boiler, and left juice is added to that which is faturated with the fire, till the juice in that which is near the fire, the smallest of the three, and called tach, becomes of a proper confistence to be flitched or ladled out into gourds, or other small vefefls, placed for receiving it. The proper time for ladling it out of the tach is when it is arrived at a rein height, as it is termed, or when it cuts freely, or in that flakes from the edges of a small wooden flt, which is dipped from time to time into the tach for that purpose. A little lime-water is used by fome aloe-boilers during the procfs, when the ebullition is too great. This author adds, as to the fun-dried
dried aloes, which is most approved for medicinal purposes, very little is made in Barbadoes. The process, however, is very simple, though very tedious. The raw juice is either put into bladders, left quite open at top, and suspended in the sun, or in broad shallow trays of wood, pewter, or tin, exposed also to the sun every dry day, until all the fluid parts are exhaled, and a perfect resin formed, which is then packed up for use, or for exportation.

Dr. Wright (Med. Journ. vol. viii. p. 219.) gives the following account, somewhat different from the former, of the method of preparing hepatic aloes in Jamaica. The plant is pulled up by the roots, and carefully cleaned from earth or other impurities. It is then split and cut in pieces into small hand-baskets or nets. These nets or baskets are put into large iron boilers with water, and boiled for ten minutes, when they are taken out, and fresh parcels supplied till the liquor is strong and black. At this period the liquor is thrown through a strainer into a deep vat, narrow at the bottom, to cool, and to deposit its feculent parts. Next day the clear liquor is drawn off by a cock, and again committed to the large iron vessels. At first it is boiled briskly, but towards the end the evaporation is slow, and requires constant stirring to prevent its burning. When it becomes of the confidence of honey, it is poured into gourds or calabashes for sale. The focotorine aloes, he says, may be prepared in the same manner.

3. Cabadilus, or horse aloes, obtained, as some say, from the faces of the hepatic aloes, and according to others from a distinct variety of the aloe perforata, denominated A. guineensis caballina vulgaris. It is easily distinguished from the former by its strong rank smell. In other respects it agrees pretty much with the hepatic, and is not unfrequently sold for it. Sometimes it is prepared to pure and bright as scarcely to be distinguished by the eye, even from the focotorine, but its offensive smell soon betrays it; and if even this should be dilapidated by art, its wanting the aromatic flavour of the finer aloes will be a sufficient criterion. Some say, that its colour is also much darker, indicating a mixture of forbes and sand, and that it is of course much more compact and heavy. This aloe is not admitted into the Materia Medica, and is employed chiefly by Parries. From the observations of Professor Murray it appears probable, that different species as well as varieties of aloes would furnish the various kinds of this drug, and that Linnaeus by referring these forio to these plants, the recent juice of which [..] correspond respectively the nearlet to them in tainle, might easily be misled; for Murray, upon tasting the fresh juice of many different species of aloe, sometimes found it bitter, and at other times totally devoid of bitterness. This author found the bitterfieceps to be the following. 1. Aloe elongata, floribus fipicatis tabulofo-triquetrias fubingenentias oblique dependentibus, folia aggregatis dentato-spinosis; and he queries whether this is not the variety T of the A. perforata of Linn. Spec. p. 458; and the aloe mentioned by Hughes and Browne. 2. A. Spirata, which is said to afford the best hepatic aloes. M. Jullien, who saw the three varieties of aloes prepared at Morvedro, in Spain, affirses us (says Chaptal, Elem. Chem. vol. iii. p. 86), that they are all obtained from the aloe vulgaris. The first variety, or focotorine aloes, is obtained by making incisions in the leaves. Time is allowed for its impurities to subside perfectly. The fluid is then decanted from the drags, and left to become thick; after which it is put into leathern facks for sale, under the name of focotorine aloes. A juice of the same nature is obtained by expression from the same leaves, which, when clarified in the same manner, forms the hepatic aloes; and the caballine aloes is obtained by a stronger pressure.

Aloe is mentioned neither by Hippocrates nor Theophrastus; Dioscorides mentions two kinds, and Avicenna tells us, that of the different kinds, without naming them, the focotorine is the best. Ceillus, who frequently mentions aloes, and recommends it to be mixed with all cathartics, does not distinguish it by any epithets. If, indeed, the account of J. Bauhin (Hist. Plants. tom. iii. p. 697.) be true, that the juice of the leaves forms itself spontaneously into three fluids, the upper being the focotorine, the middle the hepatic, and the lowest or faces the caballine; there may be some reason for the distinction of the three names, that have been uniformly appropriated to them.

All the kinds of aloes agree in this, that they consist of a resinous matter, and a large proportion of a sub stance called gum; and that they diffuse in pure spirit, proof spirit, and proof spirit diluted with half its weight of water, the impurities only being left; and in boiling water they also diffuse, but when the liquor becomes cold, the resins parts subside. The quantity of resin in hepatic aloes appeared in experiments of Dr. Lewis to be 44d, in focotorine aloes 41d, and in the caballine 44d. According to Bonhure, the focotorine aloes contains no more than 4th of resin, and the hepatic aloes contains half its weight; and therefore the hepatic aloes contains more resin and less gum than the focotorine, and this than the caballine. The resins of all the forts, purified by solution in spirit of wine, have little smell; that of the focotorine has scarcely any perceptible taste; that of the hepatic a light bitterish relish; and that of the caballine a little more of the aleric flavour. The gummy extracts are less disagreeable than the crude aloe; that of the focotorine aloes has very little smell, and its taste is scarcely unpleasant; the smell of the extract of the hepatic is somewhat stronger, but its taste more agreeable than that of the focotorine; the gum of the caballine retains a considerable share of the rank smell of this sort of aloe, but its taste is not more unpleasant than that of the extracts of the other kinds.

Aloes is a well known purgative; and it acts not only when taken internally, but when externally applied; and its cathartic quality resides chiefly in the gummy part, for the pure resin has little or no purgative virtue. Boerhawe declares it to be an effectual and safe cathartic; nevertheless in large doses it produces much heat and irritation, particularly about the rectum, from which it sometimes occasions a bloody discharge. To those, therefore, who are subject to piles, or of an hemorrhagic diathesis, the phlegmonic and bilious, or even in a state of pregnancy, the exhibition of it has done much harm; but it is particularly adapted, by its stimulating quality, to perons of a phlegmatic temperament and sedentary life, to cachetic indigospheres, and oppressions of the stomach by viscid crudities contracted from irregularity. Although in purging doses, of half a dram or two scruples, it produces irritation about the anus and sometimes a discharge of blood, yet in smaller doses of 10 or 12 grains, repeated once or twice a day, it not only unloads the first passages, but attenuates and diffuses viscid humours in the remoter parts, warms the habit, quickens the circulation, and promotes the menstrual and haemorrhoidal fluxes; and its continued use renders the blood sensibly more fluid. This, says Dr. Cullen, (ubi infra), appears to me improbable. We have frequently seen the blood drawn from persons using a good deal of aloes, and never could discover any change of its
its consistence: and if the experiments of Schwenke may be trusted, aloes added to the blood drawn out of the veins seems to coagulate rather than to dissolve it: besides the quantity of aloes taken can hardly have any sensible effect upon the whole mass of blood. It has been urged, however, that by its dissolving power it proves an emmenagogue, and is hurtful in all morbid hemorrhages. Dr. Cullen observes, that he has seldom found the emmenagogue powers of this substance. If ever there be any appearance of such a power, it is probably to be ascribed, in his opinion, rather to its operation on the rectum, communicating a stimulus to the vesicles of the uterus, than to its action on the mass of blood. When aloes is not designed to act as a purgative, it has an action upon the stomah; and it has frequently been found an antitartaric, in relieving pains of this organ.

It is also useful in halitac colicenests, when taken in small doses. With respect to its ordinary operation, Dr. Lewis alleges, that its effects are more permanent than those of any other purgative; this Dr. Cullen (Mat. Med. vol. ii. p. 525.) does not admit; for we commonly find, he says, that notwithstanding the use of aloes, the state of colicenests will return at its usual period, and that it is often necessary to anticipate this by the use of the aloeetic. This bitter juice has been accounted defrutic to worms, or to the matter which favours their production, either taken internally or applied in plasters to the umbilical region; and from its imagined efficacy in this respect, it has been used to preserve slips against the attacks of worms. But its antemonial virtue has been disputed by Murray, who says that worms have lived for 20 hours in the bitterest solution of focotorine aloes, and for many days afterwards in earth mixed with powder of aloes. In another experiment four worms were not destroyed on the fourth day. It is powerfully antifeptic; and commonly makes an ingredient in tinctures and balms for cleaning and healing wounds or putrid forts.

As to the choice of the different kinds of aloes, it may be observed, that the focotorine, which contains more gymnia matter than the hepatic, purges with more certainty and greater irritation, and is therefore most proper where a stimulus is required, or for promoting the uterine discharge; but the hepatic is better calculated for the purpose of a common purgative; and as it contains more resin, answers better as a vulnerary, for external application. Aloes is seldom given alone. Aloes, says Dr. Cullen, acts as readily in substance as in any solution; and therefore this is never to be practised but for the sake of more convenient exhibition; and it has been found to operate in substance in a smaller dose than in the vinum aloeeticum. Aloes hardly receives improvement by any addition; and the vulgar find as much effect from the aloes alone as from the pilula aloeetic.

Some benefit, however, is obtained by some division of the aloes before it is taken into the body, and the extract of gentian is properly enough employed; but Dr. Cullen is persuaded, that the Edinburgh college have not done right in withdrawing the whole of the fal poelychretum from the aloeetic pill. In the pilula rufi the myrrh may be useful in dividing the aloes; but the addition of the faisson is insignificant. Rhubarb added to aloes can answer no good purpose. In the pilula flemachicus Ph. Ed. and in the elixir flemachicus, the rhubarb, says Dr. Cullen, is an undefended addition. The aloes, continues this author, is never properly joined with the dratic purgatives, as in the pilula colocynthidum aloes, and in the extractum colonicostium compositum; for if such a medicine is intended to produce a liquid evacuation the aloes is superfluous; and if it is intended only to open the belly, the drastics are unnecessary. In the elixir proprietor, the faisson is an insignificant ingredient; and on account of the mefrum employed by the Edinburgh college, Dr. Cullen says, he has never employed it as an evacuant, but he often used it with success in curing epiplectic pains of the stomah; and for suriating it better to this purpose, the Edinburgh college have improved it much, by the mefrum they have employed in their elixir aloes virolicum. Several preparations of it are directed in the pharmacopoeias, for which see Elixir, Extract, Hypricka, Pills, Powder, Tincture, and Wine. Lewis Murray. Woodville.

Aloes rofita, is a preparation of the focotorine aloes, made by dissolving it in juice of damask roses, and evaporating it to the consistence of a paste. Then more juice is added, and the evaporation repeated, again and again.—This has been held a gentler and safer cathartic than the aloe alone. If this be dissolved in a good quantity of the fresh juices of roses, violets, borago, and bugloss, mixed in equal proportions, and afterwards reduced by evaporation to its former consistence, the extract, thus prepared, is called aloes infuscata, and with the addition of one third its weight of cream of tartar, aloes infuscata tartarica.

Aloes violata, is prepared by means of the expressed juice of violet flowers; and mixed with half its weight of cream of tartar, it is called aloes violata tartarea. But preparations of this kind are obsolele.

Aloes is applied by some writers, to a kind of mineral juice produced in Judea. This is called fofile, mineral, or metalline aloe.—Some dispute the existence of any such aloe. Others suppose it to be no other than the asfaltus.

Aloes, lignum. This wood, by the Indians and Portuguese, is called calumbia, or calumbas, being the name with which is otherwise called by medical writers xyloaloeus, and agallochum.

This wood is received by Loureiro, as we have observed under the article Agallochum to a distinct genus called aloesylum, belonging to the order of decandria; but it approaches so nearly to that of the Excoecaria agallocha of Linnaeus, that the latter has been sold for it. The tree grows in Cochinchina, the Molucca islands, and several other parts of the East Indies; and was formerly held in very high estimation, on account of its fragrant odour, as a perfume, for which purpose it was applied to closets and apartments, and as a cordial medicine in fainting fits, and in cases of paralytic affection. It is said also to be effectual in destroying the insects and acarids in children.

By the Chinese and Heathen Moors it was used as incense in their sacrifices; and employed for setting the most precious jewels that are wrought in the East Indies. It was formerly deemed in that part of the world of greater value than gold itself; and various fables have been invented as to the origin of the tree that yields it. Some have feigned, that it grew in Paradise, and that it was conveyed from thence by the rivers which overflowed their banks and swept off the trees in their way. Others pretend, that it grows on inaccessible mountains, where it is guarded by wild beasts, &c. The Siamese ambassadors brought a present of this wood from their emperors to the court of France in 1686; and thus it became known. Bathin and many others reckon three sorts of it; viz. two kinds of Calumbac and the aloe-wood, the agallochum of the shops, the teihiniang of the Chinees, thimbo of Canell, pao de aquila of the Portuguese, and frequently called eagle-wood. This is oily, reinous, compact, heavy, of a brown reddish colour, marked with grey veins, and often pierced with small holes, as if it were worm eaten.
edn. This wood is not so dear as the callabrac, and is more commonly found in the shops. It is brought from Cochinchina, and appears to be the production of the same tree. This tree bears a great resemblance to the gallochum secondarum of Rumphius, the musk of Kempfer, and the eagle-wood of Sonnerat; and is denominated gallochry moluccens and given of Malaca. The wood of the branches of this tree is white, inclining to yellow; and the bark is of a grey-reddish colour, and its surface is rough and hairy. The leaves are alternate, ovate-lanceolated, entire, much acuminate, about 3½ inches long and two wide, with a smooth and green surface, and appearing like fennin; each of them is supported by a petiole about two French lines long, and have their borders garnished by short hair; the young leaves are hairy and almost white before they are unfolded. The flowers, according to Sonnerat, are small and have no calyx; the corolla consists of one piece, and half-divided into five oval parts, pointed and hair-like; and at the interior base of each division of the corolla are two small sepalis, which are three incised, and form at the commencement of the flower a crown, composed of ten nectaris, as Sonnerat describes them. The stamens are 10, short and attached to the corolla between the divisions of the nectaris. The pifiil is formed by a superior ovary, which is oval, without a style, and crowned by a simple, very small stigma. This ovary changes into a pyriform capsule, about an inch long, and opening naturally into two partitions, and within it has two cells, each containing a black, oval, pointed, small seed, one of which is almost always abortive. At the bottom of each seed is found a fanguy substance, which seems to occupy the place of another abortive seed. Whether this tree be justified in the annals with the callabrac or gallochry of the ancients, it is not easy positively to ascertain; but it agrees with the description given of it by Kempfer and by Cunningham, in Geoilroy's Materia Medica. If this be the case, it must be of a different genus and family from the gallochry of Ambaina, which belongs to the euphorbias. Encycl. Method. tom. i. p. 49. See Gallochry, Callabrac, and Excocaria.

Grew describes a piece of Aegum albes, with its own gum growing on it in the repository of the Royal Society. See Grew, Muf. Reg. Soc. p. ii. c. i. p. 179.

ALOEDARY, aloedarium, aloedam, denotes a purging medicine, wherein alba is an ingredient.

This amounts to the same with what we otherwise call an aloetic.

ALOEAS is also used for a history of the cladse of plants, under the denomination of Aloes.

ALOEPHANGINA, in the Materia Medica, denote medicines formed by a combination of aloes and aromatics. ALOETICS, medicines wherein alba is the chief, or fundamental ingredient.

Aloetics open the orifices of the veftels, and are on this account found hurtful in cases of hemorhages, particularly at the nose; also in the tephraus, hemeronium, &c. The immediate use of aloetics tends to produce hemorhoids, hypochondria pains, and inflations.

ALOEUS, in Entomology, a species of scarabeus, or beetle, with a three-horned thorax, the intermediate longer and finer, the head submuticus, and the elytra unilliriated; found in America.

ALOFT, a sea-term, synonymous with up in the tops, at the mast-heads, or any where about the higher rigging.

ALOGIANS, Aogos, or Alogi, or ALOGIANS, a compound of the privative ə and ᾳ, 9. d. without Logos, or Word, in Backstrofisal Istory, a sect who denied that Jesus Christ was the Logos, or eternal Word; and on this ground also rejected the Gospel of St. John as spurious, and also the Revelation.

Some ascribe the origin of the name, as well as of the sect of Alogians, to Theodore of Byzantium, by trade a curier; who, having apostatized under the perpefeeion of the emperor Severus, to defend himself against those who reproached him therewith, said, that it was not God he denied, but only man. Whence his followers were called in Greek Altoys, because they rejected the Word. But others, with more probability, suppose the name to have been first given them by Epiphanius in the way of reproach. They made their appearance towards the close of the second century.

Phisalser has also mentioned a hereby which rejected John's gospel and revelation, and ascribed both to Cerinus. Dr. Lardner is of opinion that this is a fictitious herey; and that there never were any Chriftians who rejeated John's gospel and firt epifile, and yet received the other gospels, and the other books of the New Testament. No notice is taken of such by Irenæus. Euchius, or any other ancient writer, before Phisalser and Epifhanus; nor has Theodore given any account of this herey. This herey, says this indefatigable inquirer and impartial reporter, was, as he conceived, invented upon the occasion of the controversy of Caius and Dionysius, and others, with the Millenarians in the third century; some of whom disputed or denied the genuinenefs of the book of Revelation, and ascribed it to Cerinus. Hence fome faid that those enemies of the Millennium might as well reject fo John's Gospel, and others faid, that they actually did do, though they did not.

In Phisalser's catalogue this herey follows next after the order in Millenarians, or Chifionities, as he calls them, and the order in Epifhanus leads us to the fame time. Lardner's Works, vol. ix. p. 515.

ALOGONIA, in Ancient Geography, a town of Melonia, south-east of Gerena; north-east of which were a temple of Bacchus and another of Minerva.

ALOGOTROPHIA, among Physicians, an irregular nutrition of some part, attended with a vicious figure or conformation thereof, as in the rickets.

If the bones of the vertebrae of the back receive too much nutriment on one side, as sometimes happens in children, an incurvature necessarily ensues, which, as Charleton expresses it, is produced by an allogotrophy.

ALOIDES, in Botany, a name used by fome for the aloe paludifis, or fresh water aloe, called in some parts of England, water-fodder; and by Linneas, sfralotes.

ALOION, in Ancient Geography, a town of the Thelkis, near the valley of Temp, and founded, fays Steph. Byz. by the Alodes.

ALOMAYO, in Geography, a town of South America, in the country of Peru, and jurisdictioun of Guanamiles.

ALON, in Biography, a celebrated personage whose memory is preserved in the Triads of the Welsh Bards; and who flourished among the first colonies of this island, if not among the Cymry before their arrival here. This Alon, with Pleynyzd and Goron, are recorded as the three who combined the inftituces and privileges of the Bards, druids, and ovates, into a regular fyllem, under the fation of a national law. This event is faid to have taken place in the time of Prydawn, who is mentioned in the fame Triads, as the frift who digfelled a national conftitution for the Cymry or Britons. Be this as it may, there is great reafon to con
clude, that Alon is the same person who is called Olen, Olenus, Ailinus, or Linus, among the different people of Greece and the adjoining countries, and even in Egypt; for it is remarkable that similar attributes are ascribed to him by those ancient nations, as in our Triads: according to Pausanias, Olen the hyperborean is said to have been the first prophet of Delphi: Beo the female hierophant is made to sing of Olen, as the inventor of verse, and the most ancient priest of Phebus; and, indeed, all Greece adored the song of Olen; and this more particularly occurred in celebrating the completion of the vintage; for this it is said by Homer, (Iliad, v, xlv, &c.) in the description of the shield of Achilles:—

"In the procession of the vintagers there were groups of young damsels and youths, carrying basquets curiously entwined, filled with presents of the most delicious fruits. In the midst of these was seen a young man striking from his lyre harmonious sounds; he sang the song of Linus, with a voice most sweet; and the company joined with refreshments, and shouts of joy, beating the earth in cadence with lively repeats."

Alon, in Ancient Geography, a river of Cilicia, near Schaffa or Eleusin, a small island.

Alona, or Alon, a town on the eastern side of Spain, south of the mouth of the Tiber.

Alone, or Halone, a small one of the Aolian islands.

Alone, or Halone, a small one of the Propontis, south of the island of Procmellus, and north-west of Cyzicus. The name was given to it, says Steph. Byz., because its inhabitants had found out the art of making salt. This author says, that it was also called Neuris and Pro coma; but Pliny distinguishes the last of these two islands.

Along, a town placed by some writers in Phaphagonia.

Along-side, in Sea-language, expresses side-by-side, or joined to a ship, wharf, &c.

Along-shore, a nautical phrase expressing along the coast, or a course which is in flight of the shore, and nearly parallel to it.

Along, lying, denotes the state of a ship that is pressed down sideways by the weight of fail.

Aloni, in Ancient Geography, a town of Asia, situated on the eastern banks of the river Zabes, near its entrance into the Tigris.

Aloni, a people joined by Pliny to the Gordians, and placed near the Tigris.

Alonis, a town and island of Gaul, which Martin imagines to have been the town and island of Magdelen, formed by the re-entrance of the first Celtic syllable Mag.

Alonius, a place of the island Crete, in the territory of Gortyna.

Alonso, in Biography and History. See Alphonso.

Alonta, a river placed by Ptolemy in Asiatie Sarmatia.

Alontigicelli, a people of Bectia, near the river Merana.

Alontium, Aluntium, or Haluntium, a town of Sicily.

Alôp, in Sea-Language, denotes a distance. See Luff.

Alope, in Entomology, a species of the Sphinx, with dentated brown wings, the posterior being yellow and black at the apex, black abdomen, and interrupted pale-coloured bands, found in India.

Alope, or Alôp, in Ancient Geography, a name given to several towns. Alôp was a town of Thessaly. Homer mentions a town of this name, supposed to be the same place, as he names it after Alôp, a town of Phocis: it is supposed to have been so called after Alôp, the daughter of Cercyon, or of Actor. Alôp was also a town of Attica, and also of Pontus, between Mytilene, Caria, and Lydia; another in Phocis, and another among the Locris.

Alôpecia, an island near the coast of Aia Minor, not far from Smyrna.

Alôpeci, or Alôpec, was also a district of Attica, near Cynosarges, and distant about 11 or 12 stadia from Athens. The Lacedemonian general Archimolphus, who, by the suggelion of the oracle of Delphos, had been sent to drive the Phileiades from Athens, died and was buried in this place; and Herodotus (lib. v. § 3) says, that his tomb was near the temple of Hercules. This was also the birth-place of Arilides and of Soeiraes. Alôpecia was also an island placed by Strabo in the Palus-Mozotis, and by M. d'Anville, near the mouth of the Tanais.

Alôpecia, in Surgery, baldness in any part of the body, arising from disease, or from a natural defect of growth in the hair. This deficiency is sometimes produced by excessive venery, and has been known to be remedied by a person becoming chaste in his habits; but more frequently it is not connected with any evident exterior cause, and only indicates a faulty state of the fluids at the roots of the hair, or a want of due nourishment and moisture. Alôpecia was formerly a common symptom of the fever, but is now very rarely observed to occur in such cases.

Oily and gently stimulating applications to the head, with repeated shaving, are proper against the defect in question. Alôpecia is also used by Galen for the change of the hair to another colour.

Alôpecias, in Ichthyology, a name of the wiptes marina, or sea-fox.

Alôpeco-sus, in Ancient Geography, a town of the Thracian Cheroneus, north of and near the Gulf of Megalos. It was peopled by the Aiolians, and taken by Philip, king of Macedon.

Alôpecopiticos, in Zoology, a name derived from the Greek, and given by Aldrovand and others the Opossum.

Alôpecos, in Ancient Geography, a hill of Boetia, in Greece, called also Orchalis.

Alôpecuro-Veronica, in Botany. See Mentha.

Alôpecuros. See Betonica.

Alôpecurus, alôpeco-vox, fox-tail, a genus of the trianthra digyna class and order, and of the natural order of graminis, or grasses: its characters are, that the calyx is a glume one-flowered, two-valved; the valves ovate-lanceolate, conic, compressed, equal, connate at the base; the corolla one-valved, valve ovate, lanceolate, conic, with the edges united at the base, a little shorter than the calyx, about twice as long, with a bent joint, inserted into the base of the calyx, not exceeding the calyx, but more than the calyx, and upwards forked at each end; the pistillum is a roundish germ, the fleshy styles are two, capillary, united at the base, longer than the calyx, the anthers forked at each end; the fructicum is a roundish seed; the fleshy styles are two, capillary, united at the base, longer than the calyx, and fimbria villosa; no pericarpium, the corolla involving the seed; the seed ovate and covered. Martyn and Willdenow enumerate eight, and Gmelin 12 species. 1. A. indicus, panicum indicum of Miller, panicum alpeceporium of Linnæus, Spec. pl. 82. Indian fox-tail grass, with cylindrical spikes, involucres fleshy, falcate, two-flowered, and villos pedunculus, a native of the East Indies. 2. A. bulbiflorus, A. geniculatus B. Hudson, gramine.myosotis nodosum of Dilleniis, bulbos fox-tail, with culm erect, spike cylindrical, (very simple, attached, smooth, glumes of the calyx distinct and villos, Smith) and root bulbus. The bulbous culm is as a fibre from its lower part, and has a brown, tiliar, tunicated membrane. The culm is foliary,
literary, scarcely a foot long, very simple, erect, a little decumbent at the base, foliolo, binodial, frilled, and smooth; the leaves smooth; the radical few and short; the culm about linear, patent, and of the length of the flaeaths; the flippa short and frilled; the spike eufeminal, somewhat erect, very simple, slender, acute, and many-flowered; the glumes of the calyx a little unequal, acute, awnlefs, altogether separate at the base, villous in the nerves, and undilated carina; the glume of the corolla emarginated and awned at the base. This species is very different from the A. geniculatus, and has florets, says Dr. Stokes, longer, narrower, and much less hairy; and Dr. Smith observes, that in its spike, and the structure of the flowers, it is more nearly allied to the A. agrestis. It is found rarely in falt marshes; in those near Yarmouth, in the marshes of Cardiff in Glamorganshire, and near the Ault paffage, and in the vicinity of Northfleet, in Kent. It is perennial, and flowers in July. 3. A. geniculatus, meadow fox-tail, with the culm erect and smooth, spike pubifolate, and the glumes of the calyx villous and convolute at the base. The root is fibrous; the culm two feet long, erect, foliolo, smooth; the leaves somewhat smooth and glaucescent, with a fhort, fubpubefcent flippa; the spike somewhat simple, fcarceiy paniclefied, denfe, erect, about two inches long, foft, and many-flowered; all the glumes are equal, lanceolate, compreffed, white, marked on both fides with two green longitudinal lines; thofe of the calyx, especially near the keel, fikly-villous and awnlefs; the glume of the corolla smooth, except toward the apex of the keel, awned at the base, the awn genifulated, twice longer than the flower, and naked. This is a native of moft parts of Europe, from Italy through France, Germany, Holland, Great Britain, to Denmark, Norway, Sweden, and Ruffia; and also in Siberia. It is found with us very common in palifures and meadows. It is perennial, and flowers in May. This is the best grafs to be fown in low meadow grounds, or in boggy places which have been drained. Sheep, horfes, and geats eat it. Cows and fwine are not fond of it; but Dr. Pulteney fays, this is the moft grateful of all the grafses to cattle. It poifefles, fays Profeffor Martyn, the three great requities of quantity, quality, and earliness, in a degree fuperior to any other, and is therefore highly deferving of cultivation in lands that are proper for it. The feed may be eafily collected, as it does not quit the chaff, and the spikes are very prolific. But the larvae of a species of mufca, which are themselves the prey of the imyex campeltis, devour the feed fo much, that in many spikes you will scarcey find one perfect. Lewis Ma-jendic, Efq. at Hedingham, has cultivated it on a conifiderable fcale, and found it to be an excellent grafs. 4. A. Agrostis, field or slender fox-tail, with culm erect, roughifh, spike very fimpie and attenuated, glumes naked, convolute at the base, and dilated at the keel. The root is fibrous and fmall; the culm half a foot long, erect, foliolo, naked at the apex, and roughifh; the leaves rough above, the flippa lanceolate and pubifcent; the spike almost three inches long, erect, fnder, acute, manyflowered, and of a purplifh colour; the glumes subependal, larger than the preceding, and lefs pubefcent, varied with white and green, and nerves prominent; thoje of the calyx villous at the base, convolute, with a dilated subpubefcent keel, and awnlefs, the glume of the corolla smooth, awned at the base; the awn genifulated, twice longer than the flower, rough and recurved in drying. This grafs is a troublesome weed in cultivated ground; and among wheat it is excrated by the farmers, under the name of black beart; it is alfo common by way-fides as well as in cornfields, and in palifures in the Ifle of Wight. It has acquired the name of moufe-tail grafs in English, and Myofuroides in Latin, from the great length and fendernefs of the spike, which resembles the tail of a moufe. It is annual, flowers in July, continues flowering till Autumn, and comes into bloom very foon after being fown. There is a variety, with a fhorter spike, and recurved awns. It is fmall and brown, on account of its barren and funny situation. 5. A. geniculatus, gramen fubfipifaceum of Gerard, a aquae-rium fipifaceum of Parkinson, and a alopec. Taw. genicul. pro- umbonium of Morris, floating fox-tail, with culm fending and genifulated or kneefjointed, spike fubfoliate and cy-minand, and glumes blunted and hairy. The root confifts of very long and fimple fbrs; the culms natant, very long, genifulated, radiating in the inferior genifull, fufflent in the apex, foliolo, ramous, and smooth, the leaves smoothifh, the flippa whitifh and very fnder, the spike cylindric, fhort, somewhat obtufe, dilatable in lobes, many-flowered, purplifh, and in the variety 8 whifhit: the glumes twice lefs than the preceding, subependal, and very obtufe, thoje of the calyx longer, hairy; thoje of the corolla crinated, smooth, awned toward the base, the awn genifulated, and of various length; the root in dry places is bulbous, with a culm fome-what erect; and this variety Hudson has confounded with the A. bulbifcus, Dr. Smith mentions two varieties, viz. 8, g. fu-viable album of Dillcnius, and y, with a bulbous root of Hud-fon and Withering. This species is eafily known in its common fiate, by pools and in wet meadows, by the frequent joints of the culm or item changing their direction, and appearing broken. It often puts out roots under water from the joints, and thus spreads itself; the leaves floating on the surface. From the deep colour of the spikes, it is called in fome places black-grafs. It fometimes occurs in dry palifures, and then, according to Mr. Curtis, grows more upright; the spike is much more fnder, and the baflk of the flakk swells out into a kind of bulb. It is perennial, and flowers in July. Cattle eat it, but it is not feemfed a profitable grafs. The variety y is found in walls and a dry fclerefoil. Dr. Withering mentions four varieties; one of which, with awns, very fine and foft, not longer than the calyx, fruit little, flakks branched, a fibrous root, and found in a manly place near the Stews, in Edgbalton park, he fupjects to be a diftinct species. 6. A. Hordeiformis, barley-like fox-tail, with fimple raceme, and flowers intrenched with awns. This is an Indian grafs, and resembles hordeum murinum, or barley-grafs. 7. A. Montefiionea, A. Aribulatus of Hudson, &c. phleum cripnatum of Schreber, bearded fox-tail, with pani- cle pubifpiked, rugged calyxes, and awned corollas. This refembles A. panicuus, but is three times as large; the calyx has a tubercle at the bottom; the corolla, which has two valves, is shorter than the awn, the culm and leaves are stiff, the glumes rough, but smooth at the edges, both valves are awned, and the awns of the corolla are much shorter than thoje of the calyx. It grows wild in marshes and wet palifures, at Purfleet in Essex, and at Drayton, about two miles from Portsmouth, is annual, and flowers in June and July. See AGROSTIS. 8. A. panicuus, hairy fox-tail, with pa-nicle pubifpiked, villous glumes, and awned corollas, very much refembles the laft species, but the whole plant is fott, and only five or six inches high; the glumes downy, woolly at the edges; the awns of the corolla shorter than thoje of the calyx; the corolla has two valves, as fhort again as the calyx, hollow and smooth; the outer three times as broad as the other, roundifi-ovate, blunt, with four teeth, with awn longer than the valve iffuing from below the point; inner valve ovate-lanceolate, pointed, with two teeth; the calyx ending at the base in a hard tubercle. This species grows on dry foils, is annual, and flowers in July. See AGROSTIS. 

Giemlins refers to this genus the following species, besides thoje above enumerated, viz. A. vilatus, with a culm fspiked...

ALOPES, in Ancient Geography, one of the ancient names of Ephesus.

ALOPES, in Entomology, a species of the Scarabaeus Melolontha, with yellow hair, the elyptical reflex and ciliated, and the elytrix smooth and black; found at the Cape of Good Hope.

ALOPES, in Zoology, a species of the Canis, with a tail strait and black at the tip. This is less than the common fox, and has a thicker and dulkier fur, though it is sometimes brighter and redder than that of the fox. A Pennsylvaniaian brant-fox, described by Mr. Pennant, was scarcely half the size of the common fox; with the nose black and sharper, the pace round the eyes ferruginous, the forehead and upper parts of the body black, mixed with red, ash-colour, and black, and by the predominance of the ash-colour, appearing hoary, the belly yellowish, the tail black above, red beneath, and on the fides ash-coloured. The British variety of the fox with a black tip on the tail, says Mr. Pennant, is unknown in America; and therefore his brant-fox must be either a variety of the other, or a distinct species. This species is found in Europe, Asia, and America. The alopex eupaeus, or coal-fox, the motor of Buffon, is reckoned another variety. It inhabits Burgundy, is of a silver-grey colour, and the tail tipped with white like the common fox; but from the remarkable blackness of its feet and legs, seeming to have been produced by charcoal dust, it is called charcoal-burner, or coal-fox.

ALOR, in Ancient Geography, a river of Macedonia.

ALORITE, a people of Macedonin.

ALORUS, a town of Macedonia, north-west of the Thermonic gulf, placed by Toleomy in Peonia, and by M. d'Auville in Pierna.

ALOS, or Alus, a town of the Methodom in Thessaly, call of the Pelasge gulf, at the foot of Mount Othrys, upon the little river Amphrysus. It was built by Athamas, and so called in honour of one of his female dominions. Alos was also a town of Peloponnesus, in the Argolid.

ALOSA, in Fishology, a species of the Clupea, having the sides spotted with black, and the upper jaw spined. It is the chief of Ariolota, Rondeletius, and Aldrovand, the alafa of Gelfer, the elupen of Wullihby and Ray, and our Shad.

ALOSANGA, in Ancient Geography, a town of India, beyond the Ganges, according to Toleomy.

ALOST, in Geography, a town of Flanders, situated on the river Dender, ten leagues south of Antwerp. This town contains a collegiate church, and several convents, in one of which, viz. that of Guillemins, is the tomb of Theodoric Martin, who brought the art of printing out of Germany into the Low Countries. He was a friend of Erasimus, who wrote his epithalam.

This town, which is the capital of a country, was taken and difmantled by M. Turenne, in 1667; and abandoned to the allies in 1706, after the battle of Ramillies. N. lat. 54° 55'; E. long. 3° 56'.

ALOUATE, in Zoology, a name given by Buffon to the Simia Simiceus, or long-tailed, bearded, red monkey, with prehensile tail, of the Linnean 5. fem; the arhaba of Guillaus, Orooko, tom. ii. p. 8. and the royal monkey of Pennant. Some have considered this as a variety of the Simia Beccabul, from which it differs by its very bright bay colour; but Dr. Shaw (Zool. vol. i. p. 71.) is of opinion, that it is a distinct species. From young animals in the Lexiconian Museum, he describes it as being about the size of a squirrel, and entirely of a very bright, ferruginous, or reddish chesnut colour, with the face naked and black, surrounded on the lower parts by a straggling band of black hairs, and the tail strongly prehensile. This species is said to be rare in Brazil, but very common in Cayenne. Its voice and manners are the same with those of the Simia Beccabul, which is common in Brazil, but not found in Guiana. By an account of a person who kept these animals at Cayenne, it appears that the allonates, or howlers, as they are called, inhabit the moist forells in the neighbourhood of waters or marshes. They are commonly found in the woody islets of large flooded savannahs, and never on the mountains of the interior of Guiana. They go in small numbers, often in pairs, and sometimes singly. Their cry or horrid scream may well inspire terror, for it seems as if the forells contained the united howlings of all its savage inhabitants together. This clamour is usually made in the morning and evening; but it is repeated in the course of the day, and sometimes in the night. The sound is loud and varied, that one would imagine it to be produced by several animals at once, though it is emitted by only two or three, and sometimes one. In a state of captivity the animal loses its voice, or does not exert its voice, in the same manner as he does when wild, and in this state he seldom lives long. The male is larger than the female, and the latter always carries her young on her back. In order to kill these animals it is necessary to fire several times; while any life remains, and after they are dead, they will remain clinging to the branches by the hands and tail. Their flesh, after all the trouble of poffefling them, is not good; it is always tough, and never admitted to any table, but to the indigent inhabitants and travellers, to supply the want of other food. This animal is said to be large as a calf, and to live on the fruit of the quava-tree.

ALOUCH, a kind of sweet-scented gum which runs from the tree that produces white cinnamon.

ALOUETTE de Mer, in Ornithology, a name given by Buffon to the Tringa Hypoleucus, or common Sandpiper.

ALOUETTE, is also the name of the Alauda Arvensis.

ALOUS, in Ancient Geography, a town mentioned by Steph. Bz. and which belonged to Illyria.

ALP, in Ornithology, an English name used by some for the Bull-finch.

ALPAGE, alpaganum, in Ancient Writers, denotes the privilege of feeding cattle on the Alpes or high mountains, or a sum paid for the purchase of such a right. This is otherwise called Alpeathanum.

ALPAGNA, in Zoology, the Camelus Paco of the Linnean System, and the Pacos of Pennant.

ALPAM, in Botany. See Apam.

ALP ARSLAN, in Biography and History, second su-
fultan of the dynasty of Seljuk, in January 1071, the son of David or Jaffar Beg, and great grandson of Seljuk, who founded this dynasty, was born in the year of the Hegira 421, A.D. 1030. He succeeded his uncle Toghril Beg, A.D. 1063, and united in his person the two kingdoms of Khorasan and Iraq, with their dependencies; so that, at the commencement of his reign, he was sole monarch of all the countries lying between the rivers Jihan, or Ann, and the Djilat or Tigris; that is, of all Iran, or Persia, in the conquest of which he bore a considerable share, before he embraced Mahometanism he was called Israel, and afterwards he assumed the name of Mohammed, or Abu Shahj and Mohammed; and his surname was Alp Arslan, which signifies in Turkish, "the valiant lion." He was also distinguished, on account of his power and merit, by the appellation of Azzaddin, or Adhodaddin, denoting, "the protector of the religion." He began his reign by subduing several rebellions among his subjects; and he derived great assistance from his vizir Nadham al Molk, or Nezam el Male, who was reputed to be the most able man of his time, and who administered the affairs of the kingdom, in the reign of this prince and his successor, with the greatest integrity. Having succeeded in his enterprises for the security of his own dominions, and in an assembly of the states declared his son Malek Shah his heir and successor, causing him to sit on a throne of gold prepared for the purpose. and exacting from all the officers of the empire an oath of fidelity to him, Alp Arslan crossed the Euphrates at the head of the Turkish cavalry, and entered Cæsarea, the metropolis of Cappadocia, to which he had been attracted by the wealth and fame of the temple of St. Basil. After plundering this city, he proceeded to the final conquest of Armenia and Georgia, A.D. 1065. In Armenia the title of a kingdom and the spirit of a nation were annihilated; and the artificial fortifications were yielded by the mercenaries of Constantinople; "by strangers without faith, veterans without pay or arms, and recruits without experience or discipline." But the woods and valleys of Mount Caucausus were more strenuously defended by the native Georgians, or Iberians, who were at length compelled to submit; by the indefatigable exertions of the sultan and his son Malek; and who were punished for their obstinate resistance, by being obliged to wear at their ears iron horse-shoes as a badge of their slavery; many of whom, in order to avoid this ignominy, assumed the external profession of Mahometanism.

In 1068 Alp Arslan directed his arms against the Constantinopolitan empire, which was then governed by Eudocia. His progress alarmed the emperors, and induced them to take her hand and her sceptre to Romanus Diogenes, a brave kinsman, who was accordingly invested with the imperial purple. Although in the palace Diogenes was no more than the husband of Eudocia, yet in the camp he was the emperor of the Romans, and he sustained that character with feeble resources and invariable courage. By his spirit and success the soldiers were taught to act, the subjects to hope, and the enemies to fear. In three laborious campaigns the Turks were driven beyond the Euphrates; and in the fourth and last Romanus undertook the deliverance of Armenia. With an army of 200,000 men he marched to the siege of Malazkerd, an important fortress in the midway between the modern cities of Diyarbakir and Van. Alp Arslan flew to the scene of action at the head of 40,000 horse, according to the statement of Elmacin, but reduced by Abulpharagius to 15,000, and by d'Herbelot to 12,000. The Greeks, though much superior in number, were disheartened and dismayed by his rapid and skilful evolutions; nevertheless, their principal general Basilacius was defeated, Malazkerd was reduced, and their forces were separated; in this moment of advantage he proposed peace to the emperor. The answer of Romanus was dictated in the tone of insult and defiance; "If the barbarian wishes for peace, let him evacuate the ground which he occupies for the encampment of the Romans, and surrender his city and palace of Reill as a pledge of his sincerity," Arp Arslan smiled at the vanity of the demand, but he went in anticipating the death of so many faithful Moslems; and, after a devout prayer, proclaimed a free permission to all who were desirous of retreating from the field. With his own hands he tied up his horse's tail, exchanged his bow and arrow for a mace and scimitar, clothed himself in a white garment, perfumed his body with musk, and declared that if he was vanquished, that spot should be the place of his burial. In the decisive and bloody battle that ensued, the Greeks were totally routed, great numbers of them were killed; and Romanus, after valiantly maintaining his station, when he had been defeated by the body of his army, was at length recognized by a slave, taken prisoner, and presented to Alp Arslan. The successor of Constantine, in a plebeian habit, was led into the Turkish divan, and commanded to kiss the ground before the lord of Afia. He reluctantly obeyed; Alp Arslan, starting from his throne, is said to have planted his foot on the neck of the Roman emperor. This fact, however, is doubtful. He instantly hailed the royal captive from the ground; and then clapping his hand with tender sympathy, allured him that his life and dignity should be inviolate in the hands of a prince who had learned to respect the majesty of his equals, and the vicissitudes of fortune. Romanus was treated with attention and respect; and in the familiar intercourse of eight days, not a word nor a look of insult escaped from the conqueror. During the negotiation he was asked by Alp Arslan what treatment he expected to receive? To which question Romanus, with calm indifference, replied: "If you are cruel, you will take my life; if you liken to pride, you will drag me to your chariot wheels; if you confound your interest, you will accept a ransom, and restore me to my country." But what, continued the sultan, "would have been your own behavior had fortune smiled upon your arms?" Had I vanquished," he fiercely said, "I would have inflicted on thy body many a stripe." The Turkish conqueror smiled at the insolence of his captive; observed, that the Christian law inculcated the love of enemies and forgiveness of injuries; and nobly declared that he would not imitate an example which he condemned. After mature deliberation, Alp Arslan dictated the terms of liberty and peace, a ransom of a million, an annual tribute of three thousand pieces of gold, the marriage of the royal children, and the deliverance of all the Moslems who were in the power of the Greeks. The treaty was handwritten by Romanus, and the sultan, after a courteous embrace, dismissed him with rich presents and a military guard; but his subjects having revolted, he was unable to collect and remit the stipulated price of his ransom. The generosity, or perhaps the ambition of the sultan, disturbed him to expel the caufe of his ally; but the accomplishment of his design was prevented by the defeat, imprisonment, and death of Romanus Diogenes. After this treaty, A.D. 1071, Alp Arslan beheld the fairest part of Afia subject to his laws; 12,000 princes, or the fruit of princes, rooted before his throne, and 200,000 horse under his banners. He concluded to pursue the fugitive Greeks; but he mediated the more glorious conquest of Turkestan, the original seat of the house of Seljuk. His progress on this expedition, A.D. 1072, was impeded by Joleph Cathual, a Karasian, or Carizmian, the governor of Korzem, or Barzam, who, after vigorously defending his fortress, was taken prisoner;
prisoner; and being reproached by the sultan for his obstinate folly, by his insolent replies provoked a cruel sentence, that he should be fastened by his hands and feet to four stakes, and left to expire in that painful situation. The desperate Joseph, drawing a dagger, rushed towards the throne; the guards raised their battle-axes; but Alp Arslan, the most skilful archer of his age, checked their zeal, and drew his bow; however his foot slipped, and the arrow missed Joseph, who planted his dagger in the breast of the sultan, and was himself instantly cut in pieces. The wound was mortal, and the sultan expired, A.D. 1072, pronouncing an awful ad- monition to the pride of kings. "In my youth," said Alp Arslan, "I was advised by a sage to humble myself before God; to distrust my own strength; and never to despise the most contemptible foes. I have neglected these lessons, and my neglect has been severely punished. Yesterday, as from an eminence, I beheld the numbers, the discipline, and the spirit of my armies; the earth seemed to tremble under my feet; and I said in my heart, 'Surely thou art the king of the world, the greatest and most invincible of warriors.' These armies are no longer mine; and, in the confidence of my personal strength, I now fall by the hand of an assassin." This prince reigned nine years and six months, and lived 44 years and three months; and his remains were deposited in the tomb of the Seljukian dynasty, at Maru, one of the four cities of Khorasan, with this inscription: 'O ye who have seen the glory of Alp Arslan exalted to the heavens, repair to Maru, and you will behold it buried in the dust.' The annihilation of the inscription, and of the tomb itself, says a popular historian, more forcibly proclaims the iniquity of human greatnes. Alp Arslan commanded the respect of all who approached him by his stature, aspect and voice; his long whiskers shaded his face, and he wore a large turban in the form of a crown. His valor and liberality were equally renowned; and he was extolled for his piety and his attachment to the Mahometan faith and practice. He was succeeded by his son Malek Shah, who had been acknowledged during his life as the future sultan of the Turks; and who, by a triple victory over his uncle, cousin, and brother, each of whom disputed the inheritance, established his own reputation, and the right of primogeniture. Mod. Un. Hist. vol. iii. p. 394-461. Gibbon's Hist. vol. x. p. 352—363.

ALPEDRINHA, in Geography, a small place of Beira, in Portugal, containing about 250 inhabitants, and one church.

ALPEDRIZ, a small place of Estremadura, in Portugal, containing about 600 inhabitants.

ALPEN, a town of Germany, in the circle of the Lower Rhine, and electorate of Cologne; eight miles south-west of Wafel, and fifty north north-west of Cologne.

ALPEN, or ALPHEN, in Ancient Geography, the capital of the Locricians, on the north coast of Phoene, called Trachia, and above Thermopylae and Anthela.

ALPESA, a town of Batica, according to Pliny.

ALPHA, a river in the vicinity of Aquileia, near which Constantine was killed, and into which his body was thrown.

ALPHA BUCCELLI, a town ascribed by Ptolemy to the Marit; probably the same with Alba Fucens.

ALPHA, the name of the first letter in the Greek alphabet; corresponding to our A.

The word is originally Hebrew, formed from aleph, the name of the first letter of the Hebrew alphabet.

Alpha, according to Plutarch, was placed at the head of all the letters, because, in the Phænician language, it de-
the 'Dutch 26; the Spanish 27; the Italian 20; the Indians of Bengal 21; the Brahmas 19.

The Ethiopic has no less than 262 letters in its alphabet, there being seven vowels, which they combine with each of their 26 consonants; to which they add 20 other aspirated syllables. The like is said of the Tartarian; each of their letters is a syllable, having one of their vowels joined to its consonant; as bê, kê, bî, &c.

The Chineese have no alphabet, properly speaking; except we call their whole language their alphabet; their letters are words, or rather hieroglyphies, and are in number about 80,000. See Phil. Trans. vol. ix. an. 1769, N° 66.

In effect, alphabets were not contrived with design, according to the just rules of reason and analogy; but have been successively framed, altered, &c. as occasion offered. And hence have arisen many grievous complaints as to their deficiencies; and divers attempts to establish new and more adequate ones in their places. Bishop Wilkins charges all the alphabets extant with great irregularities, with respect to the order, number, power, figure, &c. As to the order, it appears artificial, precarious, and confounded; because the vowels and consonants are not reduced into classes, with such order of precedence and subsequence as their natures will bear. Even the Hebrew order is not free from this imperfection. As to number, they are both redundant and deficient; redundant, either by allotting several letters to the same power and sound; as in the Hebrew y, and the ordinary Latin e and k, f and ph; or by reckoning double letters among the simple elements of speech; as in the Hebrew, the Greek ε, and the, Latin q, cu, et, and the j, consonant, or jot.—Deficient in divers respects, especially in regard of vowels, of which there are seven or eight kinds commonly used, though the Latin alphabet only takes notice of five; whereof two, vis. i and u, according to our English pronunciation, are not properly vowels, but diphthongs.

Add, that the difference among vowels, in respect of long and short, is not sufficiently provided for: the ancients, we know, used to express a long vowel by doubling its character; as amanah, nataa, rees, fees, fansifimim; though the vowel i, instead of being doubled, was frequently prolonged, as addiis, rizo, vives. The ways used in English for lengthening and abbreviating vowels, vis. by adding a quiescent to the end of a word, for prolonging a syllable; and doubling the following consonants, for the shortening of a vowel, as waine wuan, waire warre, &c. or else by inferring some other vowel, for the lengthening of it, as meut met, read red, &c. are all improper, because the sign ought ever to be where the sound is.

As to their powers, again, those are not always fixed to the same significations: the vowels, for instance, are generally acknowledged to have each of them several sounds: vocales omnes plurifimas, says Liphus; and Volinus affirms us, the ancients used their vowels in very different ways, alliando tenuas eximique, nunc crassius, nunc intermedium fono. Thus the power of the vowel i is expressed in writing more lenis than in its several ways, vis. by bê; as in he, me, fes, ye; by he, in three, free, ues; by he, in field, yields, yields, chief; by he, in near, bear, bear; by se in people; by i in privilege. So is the power of the vowel a, as in all, any, awe, fan, engli; which are only various ways of writing the same long vowel; besides the other distinct ways of expressing the same vowel when used short: again, the power of the vowel o is written five ways: o, as in to, who, crow; oe, as in doe; oo, in foe, moon, noon; ou, in could, would; oo, in two; and so of the rest. Nor are the consonants of more determinate powers; witness the different pronunciation of the same letter ẹ in the same word circe, and e in negligence.

To say no more, the letters ẹ, f, t, are used alike, to denote the same power, and the letter ʃ is commonly used for s; and, which is yet worse, some letters of the same name and shape are used at one time for vowels, and at another for consonants; as ʃ, v, w, z; which yet differ from one another, says Bishop Wilkins, from corpus & anima.

From this confusion in the power of letters, there arise divers irregularities; as, that some words are distinguished in writing, which are the same in pronunciation, e. g. coffe and caffa, &c. and others are distinguished in pronunciation, which are the same in writing; as get, acquieres, and get, gatere, &c. Hence also the Latin male is a disyllabic, and the English male is a monosyllabic.

The names also, in most alphabets, are very improperly expressed by words of divers syllables; alpha, beta, &c. in which respect, the Roman and our English alphabets, which only name the letters by their powers, have a great advantage over the rest.

Lastly, their figures are not well concerted; there being nothing in the characters of the vowels answerable to the different degrees of aspiration; nor in the consonants, analogous to the agreements or disagreements thereof. Wilkins's r. towards a real character, &c. b. i. c. 4.

And all these imperfections are obviated in the universal alphabets, or characters, of M. Lodwick, Bishop Wilkins, &c. See Universal Characters.

In the French king's library is an Arabic work, entitled Sephar Alachen, containing divers ferts of imaginary alphabets, which the author distinguishes into prophetic, mystical, philosophical, magical, talismanic, &c.


It is no wonder that the number of letters in most languages should be so small, and that of the words so great, since, from a calculation made by Mr. Préfet, it appears, that, allowing only twenty-four letters to an alphabet, the different words or combinations that may be made out of these twenty-four letters, taking them first one by one, then two by two, three by three, &c. would amount to the following number, 1391274288,887522099425128493462200. See Combination.

It may be here observed, that every combination may make a word, even though that combination have not any vowel in it; because the e mute, or quiescent, invests itself imperceptibly between the consonants, or after the consonants, where they are but two, the latter of which would not be heard without it. The use of this silent e is very remarkable in the Armenian, Welsh, and Dutch languages; wherein the generality of words have several consonants together.

Nor must it be omitted, that every single letter may make a word; which is very apparent, where the letter is a vowel; words of that kind being found in most languages. Thus, a and e make words in the Greek; a, o, in the Latin; a, ọ, in English; a, o, y, in French; a, c, t, in Italian; a, y, in Spanish; a, o, in the Portuguese; o, in most languages, and even in the Dutch and Swedish. Any consonant also becomes a word, by adding an e mute to it in pronunciation.

In fine, though a considerable number of the possible combinations of twenty-four letters were retrenched, yet the number remaining would still be immense, and vastly superior to that of the words in any language known.

Of all known languages, the Greek is looked upon as one
one of the most copious, the radices only of which are es-
estimated about 32,44, but then it abounds exceedingly in
compounds and derivatives. Bishop Wilkins thinks these
may be moderately computed at about ten thousand. Her-
manus Hugo, indeed, affirms, that no language has so few
as 100,000 words; and Vario is frequently quoted by learned
men, as if he affirmed that there are in the Latin no less
than 5,000,000; but upon inquiring into the scope of the
passage, Bishop Wilkins observes, that this number is not
intended by him to express the full number of words in the
Latin, but the great variety made thereof by the inflection
and composition of verbs.—To this purpose he lays it down,
that there are above one thousand radical verbs in the Latin,
and that each verb admits of five hundred several varieties.
He farther supposes, that each of these may be compounded
with nine prepositions; as, effer, rectiss, accettis, decretis,
peccatis, precessat, successit, &c. which amounts to five millions.

concerning the origin and progress and various kinds of
alphabetical writing, see letters and writing.

Alphabet, in matters of Polygraphy, is a duplicate of
the key or cypher, which each of the parties corresponding
are to keep by them.

It is properly an alphabet of the usual letters disposed in
their order; opposite, or underneath which, are the secret
characters corresponding thereto, with the blank or useless
letters, and the other signs or symbols serving to disclose
and render it difficult to decipher. See Deciphering.

Alphabet, among Merchants and Traders, is a kind of
index, with the twenty-four letters in their natural order, in
which are set down the names and surnames of those with
whom open accounts are kept; and which refers to the fol-
ios of the ledger, where those accounts are written, in the
form of debtor and creditor; serving to find easily, and
without any trouble, such accounts as are necessary to be
turned to.

Alphabet, among the French, signifies also those
punches or iron tools, which engravers upon metal use to
egrave the several letters, or characters, which belong to
their works, either for legends, or for other inscriptions.
The bookbinders have also small brass tools, which they
call alphabets, and with which they put the titles, and the
number of the volume, on the back of books.

Alphabetical versus. See appendix.

Alphea, in Entomology, a species of the Phalena
Bombyx, with furtigious wings, a white point in the mid-
dle, and a punctated brown streak, found in New Hol-
dland.

Alphenix, white barley-sugar, to which is given an
extraordinary name, to render it more valuable. This sugar,
which is thought good for colds, is made of common sugar,
which is boiled until it becomes easy to crack, when they
pour it upon a marble table, greased with oil of sweet al-
monds, and mould it into various figures with a brass
chisel. It is easily fulfilled with wax.

Alpharabius. See Alphabet.

Alpheid. See cor hydra.

Alpheratz, in Astronomy, a fixed star of the third
magnitude in Aquarius. This is otherwise called alpha-rectus.
Some also give the denomination oni alpata, and mor-
chub alphabara; or two other stars in the right shoulder of
Pegasus.

Alphery, Mikephel, in Biography, an English div-
ine of the 17th century, was born in Ruffia, of the im-
perial line, and on account of the contumacies in Ruffia, which
happened towards the close of the 16th century, was sent to
England with his two brothers. They were conformed to the
care of Mr. Joseph Bidell, a Ruffia merchant, and by him en-
tered at Oxford, where two of them died of the small-pox.
The survivor took orders in the English church, and was
presented in 1618 to the rectory of Woolley, in Huntingdon-
shire. During his residence in this situation, he was invited
to return to his native country by some zealous friends, who
promised to exert their utmost efforts in restoring him to the
throne of his ancestors; but he declined the proposal, and
preferred remaining in the humble, but perhaps no less hon-
norable and useful, station of a parlia priest. At the time of
the civil wars, he endured great hardships from the repub-
lican party, and was ejected from his living. After suf-
ferring much insult and oppression by the misguided zealots
of that distracted period, he made a small purchase in the
vicinity of his living, built a house, and resided in it for some
years. The presbyterian minister by whom he was succeeded
encouraged and protected him; paid him the fifth part of
the annual income of his living, the allowance made by par-
liament to ejected ministers; treated him with kindness, and
did him all the services in his power. After the Resto-
rilation, he was replaced in his rectory; but his advanced
age of 80 years, and attendant infirmities, obliged him to
transfer the duty to a curate, and to retire to the house of his
eldest son at Hammersmith, where he died, much respected,
and affording a singular example of the vicissitude of the

Alphesera, in Botany, a name by which the Ar-
abian, and some other authors, express the white Bry-
ony.

Alphesi, Isaac, in Biography, a learned rabbi, who
flourished in Spain in the 11th century, and who came over
from the kingdom of Fez, in Africa, with the Monabites,
or Amenides. His epitaph, written in hexameters, was,
this purport:—“Let it be engraved on the stone, that
the light of this world is gone out, and that the foundation
of wisdom is deposited within this tomb. Daughters of
Sion, come and weep! the world is buried, and thicken
with blindness. Weep and sigh, for the ark and tables of
the law are broken in pieces with this doctor.”

Alphestis, in ichthyology, the name of a fish called
by others Cinedus, the labrus cynedes of Gmelin’s Linneus.

Alpheta, in Astronomy, a fixed star in the northern
crown; otherwise called lucida corona.

Alpheus, in Ancient Geography, one of the names
of Pisa in Etruria, supposed to have been founded by the
Lizaus, who arrived thither from the banks of the Alpheus,
in the territory of Elys.

Alpheus, a river of Elis, no less celebrated in my-
thology than recognized by geographers. The source of
Alpheus was in the interior part of Peloponnesus, in the
south-east of Arcadia. Its course was first to the north-
west; and then turning to the south, it entered Elis, and pas-
ing by Pisa and Olympia, discharged itself into the sea.
The mythologists, who are fond of animating all fountains
and rivers, pretend that Alpheus, falling in lust with Arc-
theta, pursued her to the sea, into which she plunged her-
sel, and following the same course under the water, re-
joined her at Syracusa, in the small island of Ortigia.
Virgil. Æne. lib. iii. v. 694. Accordingly it is reported
that this river passes under the sea, without mixing with
the salt water, so as to pass quite into Sicily, where it
mixes itself with the fountain Aretusa, near the city of
Syracusa; insomuch that any thing which is thrown into
the river on the side of Elis is said to come out at this fountain.
The geographical relation and the poetic fiction are so blended,
that it is not easy to decide which of them gave occasion to
the other; but they are both founded on a notion which prevailed among the ancients, that rivers puffed under ground for a considerable distance from one place to another. The Olympic games were celebrated on the banks of this river; and Orpheus was worshipped as a god at Olympia. Thus Pindar:—

"Alpheus, thy immortal flood,
On his lord's triumphant brows
The Olympic wreath befo'ward."

Od. i. West's Pindar, vol. i. p. 7.

Paulusini (in Ellid. c. 6.) informs us, that the Elecans had a law, which condemned to death any woman that should either appear at the Olympic games, or even cross this river, during that solemnity; and the Elecans add, that the only woman who transgressed it had disguised herself in the habit of a mender or keeper of those games, and conducted her son thither; but when she saw him return victorious, her joy made her forget her disguise, so that her sex was discovered. She was, however, spared, on account of her father, husband, and son, who had gained the Olympic prize; but from that time an order was made that the keepers should appear there naked.

ALPHONSO was said to be at the source of the river Alpheus, and that it derived its name from the property which the waters had of curing the leprosy, αλήθη denoting a leper.

ALPHITIDON, in Surgery, a species of fracture, wherein the bone is broken into a great number of small parts, or particles. The word is formed of αλήθη, farina, flour; q. d. a bone ground to flour or powder.

ALPHITOMANTIA, in Anatomy. See ALERUSMANTY.

ALPHUS, Avitus, in Biography, a Roman biographer, who probably lived about the time of Alexander Severus, in the beginning of the third century. He wrote the History of the Carthaginian war. Vols. Hist. Lat. c. iii.

ALPHUS Nius, in Ancient Geography, a mountain of Asia, mentioned by Plutarch in his treatise of rivers, where he is speaking of Lycomaras, a river of Astolia.

ALPHONSIN is the name of a surgical instrument which was formerly used for the purpose of extracting foreign bodies, especially bullets, from wounds. The alphonsin derived its appellation from its inventor, Alphonso Ferrius, a Neapolitan physician of the 16th century, and consists of three branches, which, by their cleftness, are separated from each other, but may be closely held together by means of a ring pushed forwards upon the branches. It is to be introduced to the bottom of the wound in its closed state; the ring is then drawn back, that the instrument may open and lay hold of the bullet; after which the operator replaces the ring, and withdraws the forceps, holding fast upon the extraneous body. See WOUNDS.

ALPHONSONE Tablets. See ALPHONSO and TAPERS.

ALPHONSO I. of Don Alonzo Enríquez, in Biography and History, the first king of Portugal, was the son of Henry of Burgundy, Count of Portugal, and grandson of Don Alonzo, king of Leon and Castile, who granted to Henry part of Portugal, as the dowry of his wife Therefa. He was enthrusted by his father to the care of Egas Muniitz, who gave him an excellent education. But as his father died when he was entering into the third year of his age, A.D. 1112, his dominions were governed by his mother Therefa. As reports prevailed of his mother's familiarity with Don Ferdinand Perez, Count of Tratema, and her intention to marry him, some of the Portuguese nobility, jealous of his growing honour and power, advised Don Alonzo, at the age of 18, to assume the sovereign authority. The queen and her party reflected; but though they had recourse to arms, they were speedily defeated, and Therefa was lodged in prison, where she was confined during the remainder of her life. After several conflicts with the Moors, princes, who poffessed part of Spain and Portugal, in which he was generally successful, his conquests were restrained by Don Alonzo, King of Leon and Castile, who assumed the title of the Emperor of the Spains, by whose numerous army his country was laid waste. Having, however, given him a temporary check, he proposed a treaty of peace, to which the emperor acceded, A.D. 1137; and as the Pope's legate interfered by his interest and influence to effect this accommodation, the Count Don Alonzo, under the impulse of gratitude and piety, declared himself tributary for all his dominions to the holy see, and promised to pay an annual sum of four ounces of gold. In 1139 the Moors princes were reinforced by a powerful army from Barbary. The Count, though he had an opportunity of retiring, and was advised by his generals to adopt this measure of safety, determined to meet them in the plains of Ourique; and after an obstinate and bloody dispute, the Moors were totally routed. This glorious victory was gained on the 25th of July, and the anniversary of it has ever since been celebrated for preserving the memory of so signal a favour vouchsafed by Providence to the Christian arms. Immediately after this victory Don Alonzo was proclaimed king on the plains of Ourique; but the form and constitution of the monarchy were not settled till the state, consisting of prelates, nobility, and commons, were assembled at Lamago, in the year 1145. This event was preceded by the conquest of Santarem; and it was functioned by the unanimous and cordial concurrence of the states. The king was crowned by the Archbishop of Braga, and it was declared that the regal dignity should descend to his heirs male. Eighteen statues were framed with the advice of the prelates and nobility for the government of the kingdom, and they were attended by the people. When the question was proposed, whether it was their pleasure that the king should go to Leon, do homage, and pay tribute to that prince, or to any other, every man, drawing his sword, loudly exclaimed, "We are free, and our king is free, and we owe our liberty to our courage; and if he shall at any time submit to such an act, he deferves death, and shall not reign either over us, or among us."

The king's coronation was next year followed by his marriage with Matilda, daughter of Awulains, count of Mauricie and Savoy, and in 1147 by the recovery of Lisbon out of the hands of the Moors. In this conquest he was assisted by a number of adventurers, who were assembled from different countries at the mouth of the Tagus, in their progress to the Holy Land. The capture of Lisbon was followed by the accession of several other places to his dominions. By means of these acquisitions, Don Alonzo became master of four of the six provinces that compose the kingdom of Portugal, and the reputation of his arms was raised to a very high degree. He was no less provident in peopling and improving than enterprising in the acquisition of territories; and in all his great and good deeds he was seconded by Matilda, a prince of equally celebrated for her exquisite beauty, distinguished capacity and nargious piety. By her he had a numerous offspring, which enabled him to strengthen his interests by great alliances. The marriage of his second daughter did not prevent his having disputes with his son-in-law, Don Ferdinand, king of Leon; who once made him prisoner, but restored him to liberty on the humiliating condition of coming in person to Leon to do homage
homage for his dominions. His son, Don Sancho, inherited his father's military disposition, took the lead on several occasions during the latter part of his reign, and in 1180 gained a glorious victory over Joseph, king of Morocco and emperor of the Almohades, who had advanced with a very large army as far as Santarem. The confirmation of the indemnities, in consequence of this defeat, was so great, that they left the Portuguese at liberty to impose the inferior part of the country, and to fortify their frontiers during the whole of next year. Alphonso needed repose and had retired to Coimbra, where, worn out with cares and fatigue, he departed this life on the sixth of December, 1187, after a reign of 57 years, in the 76th year of his age. His remains were deposited with great funeral solemnity in the church of the holy cross at Coimbra. His gigantic size and strength, as he was no less than seven feet high, and his martial ardour, have given occasion to many absurd and incredible stories concerning his military exploits, so that in the annals of chivalry, as well as in the record of martial achievements, he fulfils a very conspicuous rank. He instituted two orders of knighthood, that of the Wings and that of Avis, which still flourish in that kingdom with honour. He was succeeded by his son, Don Sancho, in the 31st year of his age. Mod. Un. Hist. vol. viii. p. 175—190.

Alphonso, or Alonso II. Don, surnamed the Fat, the third king of Portugal, succeeded his father Don Sancho I., at the age of 27, A.D. 1212. He began his reign with two very popular acts; he sent a body of infantry to the assistance of the king of Castile, who behaved with great reputation in the famous battle of Navas de Tolosa, and he gave the castle of Avis to the knights of that order; nevertheless, the lustre of his reign was eclipsed in its dawn. His quarrels with his own family entailed upon him a variety of troubles, and subjected him to the interference, as well as the displeasure, of pope Innocent III. The pope, however, prevailed in producing a reconciliation with his subjects; but this calm was disturbed by the incursions of the Moors. However, an army of Germans and Flemings, destined for the holy land, seasonably arrived in the harbour of Lisbon, and enabled the king to take Alcazar do-Sal, where the Moors had a fortress on a rock that was deemed impregnable, A.D. 1217, and also to defeat the Moorish army. Towards the close of his reign he quarrelled with his clergy, who refused a contribution of troops and money for defending the kingdom against the infidels; upon which, in 1221, the pope excommunicated him, and put his dominions under an interdict. Whilst he was negotiating with his subjects on occasion of the division produced by the pope's sentence, he died on the 12th of March 1223, in the 12th year of his reign, and was buried with little ceremony, under a plain tomb, in the conventual church of Alcobaca. He was very brave and uncommonly strong; and is laid to have been a great promoter of justice. Mod. Un. Hist. vol. viii. p. 193.

Alphonso, or Alonso III. Don, king of Portugal, succeeded his brother Don Sancho II, A.D. 1248, in the 35th year of his age. Soon after his accession to the throne, he entered into a war with the Moors, and took Faro in the province of Algarve, which was deemed the capital of the Moorish territories, and also Loula, which was carried by storm; and he thus added a considerable district to the dominions of Portugal. His domestic administration was conducted with great prudence, so that his power and popularity were much increased, and he maintained a friendly intercourse with pope Innocent IV. In consequence of his marriage with Dona Beatrix, the natural daughter of Don Alphonso the Wife, king of Castile and Leon, whilst his first wife was living, he incurred the displeasure of pope Alexander IV., who put his kingdom under an interdict. But upon the death of his first queen, A.D. 1262, pope Urban granted a dispensation, legitimated the children of Dona Beatrix, and removed the interdict. In order to prevent all future disputes with the crown of Castile, the two kings defined the boundaries between their respective dominions by means of commissioners, and recognized this settlement by a solemn act. The king, encouraged by the prosperous state of the country and by the happy issue of his enterprises, extended the authority of the crown, and obliged the clergy to contribute to the welfare of the state; but this measure revived old disputes, and the kingdom was again, A.D. 1268, put under an interdict. Such was his policy, that he contrived to obtain from Castile an exemption of all claims upon the crown of Portugal, and to procure a declaration that its monarchs were free from every kind of homage. Before his death, he made a full submission to the church, and was reconciled to the pope and clergy; and having received absolution, he died February 16th, 1279, in the 31st year of his reign, and 69th of his life; leaving the kingdom of Portugal complete to his successors. This prince was of tall stature and engaging aspect and manners; magnificent in times of peace, and frugal when his affairs required economy; the friend of the poor, for he pawned his crown to provide them with bread in a time of scarcity, respected by the nobles, and obeyed by the clergy. Mod. Un. Hist. vol. viii. p. 204.

Alphonso, or Alonso IV. Don, king of Portugal, surnamed the Brave, was the son of Don Denis, and succeeded his father in 1324. When he ascended the throne, hunting was his favourite diversion; and whilst he was giving a detail to his council of a month's sports, one of his courtiers laid the resolute to remonstrate, and to threaten, that if the grievances of his subjects were not redressed, they must look out for another and a better king. Alphonso was at first highly displeased; but upon reflection, "I perceive," said he, "the truth of what you say: he cannot long have subjects who will not be a king. Remember, that from this day you have nothing more to do with Alphonso the sportsman, but with Alfonso, king of Portugal." To this resolution he adhered; and he exerted the authority of a sovereign in a manner that awed his subjects, without conciliating their esteem. To his father's memory he paid respect, and promoted those who had opposed himself with the greatest venom, regarding them, though enemies to him, as the true friends of the crown. He shewed much duty to his mother, and great affection for his confidant queen Beatrix; and commenced his reign with forming designs for the establishment of his family and the security of his dominions. He proceeded, however, against his brother, Alfonso Sanchez, as a profligate traitor, and thus drove him into rebellion; but he was afterwards reconciled, and received him into favour. He engaged in a war with Alfonso XI., king of Castile, which terminated in an alliance and in effectual alliance against the Moors. But no part of his conduct was more artful and cruel, and reflected greater disgrace on his character, than that which concerned Donna Agnes de Castro, the mistresa and coheire of his son, Don Pedro. Indulged by his courtiers, who were jealous of the influence of this favourite, he illused orders for the murder of this prince, and afterwards avowed and approved this horrid deed. The son by this act was driven into a civil war, but it was soon concluded by his submission, and by tokens of peculiar favour on the part of the father. As the
the termination of Alonso's reign and life approached, he endeavoured to compensate his sad crofs and misconduct by acts of piety and charity, by redressing grievances, establishing laws for the suppression and restraint of vice and immorality, detaining publicans for raising the rates, and effacing from the memory of his son the insult and injury which he had received; at the same time he took measures for removing those out of the way, who were likely to become the objects of retribution after his death. Having concerted measures of this kind he died in May 1557, in the 32d year of his reign and the 67th year of his age, with the character of an undutiful son, unnatural brother, and cruel father; but in many respects, of a great man and great king, brave and fortunate in war, but artful and indirect in his political measures, attached to his subjects, strict in the administration of justice, attentive to the public welfare and affiduous in encouraging industry and enriching his people. After all, he was rather revered for a right use of power, than relied on as a public parent; and though feared and even execrated, he was not much honoured nor beloved. His device was an eagle on the wing, with this motto, "Altiora peto," i.e. my hopes fly high.

ALPHONSO, or ALONSO V., Don, king of Portugal, surnamed the Africam, on account of his heroic exploits, was born in 1432, and succeeded his father, king Edward, at the age of six years. During his minority his uncle Don Pedro was regent, and though he conducted the administration with reputation, and married his daughter to the young king, he was created a traitor at the expiration of his regency; and both he and several of his adherents were put to death. The king, who on this occasion was overpowered by the enemies of the regent, afterwards did justice to his memory. And he manifested his attachment to his queen, who died in 1555, not without strong suspicions of poison administered by her father's enemies, by removing all connections with the sex. Military glory was the chosen object of his pursuit. With this view he turned his arms against the Moors in Barbary, and in 1558 he passed over to Africa with a fleet of 200 sail, and an army of 20,000 men. He began his career with the capture of Alcaçer, which he strongly garrisoned; and prosecuted it, with various successes, till the year 1470, when, after reducing Arzila and Tangier, he returned with great honour to his own country, and acquired the distinguishing appellation of Africam. He likewise added to those titles which had deferred to him from his ancestors, that of lord of the coasts on both seas, and for perpetuating the memory of his exploits caused them to be elegantly wrought in tapestry. The war of Africa gave occasion to the establishment of the order called Knights of the Sword. Alonso was engaged in another contest of his fortunate issue against Ferdinand and Isabella, of Castile, in support of the claim of his niece Dona Joanna to that crown. His failure of success induced him to take a journey into France, in order to obtain the assistance of Lewis XI.; but duped by this faithless monarch, he was so mortified that he formed a purpose of resigning his crown and making a pilgrimage to Jerusalem. During his absence, Portugal was governed, with great ability, by the prince Don Juan; and upon the king's return, he was received by his son with respect and joy, and reinstated on the throne. Alonso, however, oppressed with melancholy, determined to withdraw into a monastery; but in his way thither, he was feized at Cisna with the plague, and died there on the 28th of August 1481, in the 49th year of his age, and the 34th of his reign. Alonso was much honoured and beloved by his subjects, on account of his private character and public conduct; his temper was condescending and amiable, and he was so much distinguished by his benignity, bounty, and charity, which he particularly displayed in the ransom of prisoners, that he acquired the popular title of the Redeemer of Captives. He was eminently chaste and temperate, fond of letters, and a patron of learning, and the first Portuguese king who formed a library in his palace. Guinea was discovered in his reign, under the auspices of his uncle, the celebrated Don Henry; and a very lucrative trade was established by the Portuguese to that country, which Alonso vindicated against the claims and hostile attempts of the Spaniards.

ALPHONSO, or ALONSO VI., king of Portugal, succeeded his father John IV. in 1460; and having been a partner with the pally whilst an infant, and neglected in his education, became of a fierce and untractable temper, so that he was deplored and succeeded by Don Pedro. He died suddenly in 1583, in the castle of Cintra, after having borne the title of king almost 27 years, living 40, and being a prince 15 years. Mod. Un. Hist. vol. xviii. p. 444, &c. vol. xix. p. 14.

ALPHONSO, or ALONSO III., surnamed the Great, king of Algaris, Leon, and Oviedo, was born in 1449, and succeeded his father Don Ordonez in 1479. The rebellion of Don Froila compelled him to retire from the kingdom, but upon the death of this usurper he returned with universal applause. He was an able and warlike prince, and in succedive battles with the Moors he reduced several places. His attention to the lower classes of his subjects digested some of the naughty nobility, and occasioned disturbances which he reprefed. In an interval of tranquillity A.D. 900, he held a general council of the clergy and state, which enacted some useful regulations, and he directed his attention to other objects, that contributed to the honour of his kingdom and the happiness of his subjects. Whilst he was employed in building and fortifying some of the towns, which he had taken from the Moors, he was interrupted by them, and reduced to the necessity of defending himself with a considerable army; which he did with such effect, that they were defeated with great loss. About the same time he was dissuaded by the rebellion of his son Don Garcia, who had formed the design of depoing his father and placing himself upon the throne; but this rebellion was soon suppressed. It was followed, however, by increasing discontent, occasioned by the confinement of Garcia and the oppression of taxes; in consequence of which Alonso, A.D. 915, assembled the states and also the grandees of the country, and abdicating the crown, resigned it to Don Garcia, who was declared king; and to his other son Don Ordonez he assigned the province of Galicia. Soon after his reign the kingdom, his son assembled a numerous army in order to march against the Moors; and having gained considerable advantage in 911, he was preparing for another campaign. Alonso aided him by his counsel, and took pains to convince him, that incursions and conquests were of little avail, if they were conducted with no other view before that of enriching the soldiery and of gaining applause. His advice was regarded, and Alonso himself offered to take the command of the army that was raised for new operations; and having made a glorious campaign in 912, he returned with his army, laden with spoil to Zamora. Here he was soon feized with a disorder, which terminated in his death, December 28th, in 912, two years after his abdication, 49 years from the time of his being associated with his father in the government, and when he was about 63, or as some say 65 years of age. He was deemed a prince
prince of great learning, and the patron of literature; and much respected for piety and virtue, and all princely qualities. It is said, that he composed a Chronicle of the Spanish affairs from the death of king Rcefaath to that of his own father Don Ordonez. This chronicle has been incorrectly published by Sandone, and the later editions have been imperfect. This work was published to the world by the name of Schallian, bishop of Orenza, at whose request it was composed. Mod. Univ. Hist. vol. xvi. p. 159, 147.

Alphonso, or Alonso X., surnamed the H?fe, king of Leon and Gallicie, succeeded his father, May 30th, in the year 1252, with the general approbation of the people, who regarded him as a prince of great qualities and remarkable generosity; though the appellation with which he was honoured was more the result of his love and encouragement of science than of his royal talents and exploits. The prosperity of his reign was interrupted by the ill-concerted projects of his ambition. His first attempt was directed against Galcony, to which he pretended a better right than Henry III. of England; but instead of succeeding in enforcing his claims, he contented to renounce them, on condition that Henry's son, afterwards king Edward I., should marry his sister Leonora. He also prepared for an expedition against the Moors, in Barbary, at an expense which drained his treasuries and obliged him to debase his coin; but he was diverted from prosecuting it by supporting claims, derived to him from his mother, to the duchy of Swabia. He was thus led into connection with the German princes, and became a competitor with Richard, earl of Cornwall, for the imperial crowns, a titular honour which cost both these rivals immense sums of money. The conspiracies of several princes of the blood, as well as those supported by the Moors, demanded his serious attention; and he was successful in restraining and defeating them. In 1268 he formed a romantic design of visiting Italy, against which the states remonstrated, and which, in deference to their opposition, he was under a necessity of relinquishing. This produced a formidable conspiracy among his subjects, and the number of malecontents became so considerable and so powerful, that a compromise and reconciliation were not effected without great reluctance on their part and confession on that of the king. After the death of Richard, earl of Cornwall, and even when Rodolph of Hapsburg was actually elected emperor of Germany, Alphonso aspired to this honour; and, for the purpose of preventing the pope from confirming his election, he took a journey to Bauta, in order to have an interview with him; although in the mean while the Moors, availing themselves of his absence, were ravaging his dominions. This journey, whilst it was attended with great expense, and productive of much confusion in his kingdom, proved ineffectual; the pope was not to be convinced of the justice of his claims; and he returned disappointed and mortified. In this interval his eldest son died; and the second, Don Sancho, claimed the crown against the children of his elder brother. An assembly of the states was convened at Segovia, and Sancho's claim was allowed; but the cause of the children was maintained by their uncle, Philip the Hardy, king of France; Alphonso was thus engaged in a war; and his own queen, Donna Violante, refented the indignity offered to her grandchildren, and retired to the court of her father, the king of Aragon. In addition to these domestic dissensions, Alphonso, engaged in a war with France, was compelled by the pope to renew the war with the Moors, which proved disastrous; and having concluded a truce with them, he was engaged in a contest with the

king of Grenada. By these various measures his finances were ruined, taxes were multiplied, and the affairs of the kingdom were reduced to such disorder, that an assembly of the states was held at Seville in 1251, in which the king proposed, and the states acquiesced, to give a currency to copper money. Another assembly of the states was held at Valladolid, in conseqnence of the intrigues of Don Sancho, A.D. 1252, which deprived Alphonso of the regal dignity, and appointed Sancho regent. The king, reduced to almost insupportable difficulties, sought the assistance of the king of Morocco; foolishly curbed and dishonoured his son; and by his death in 1283 confirmed the act of exclusion, and appointed, for the succession, the infants de la Cerda, and upon the failure of their heirs, the kings of France. At the commencement of the next year, when Alphonso received information from Salamanca, that Sancho was dangeroufly ill, and professed the most sincere sorrow for his undutiful conduct to his father, he resolved, pardoned his son, revoked his curbs, and then died on the 4th of April 1284, in the 84th year of his age. He was buried in the cathedral of Seville, and l? behind him the character of a learned man and a weak king. As a proficient in science and a patron of literature, he excels a high and honourable rank. As a politician and legislator, he completed the code of laws which his father, Don Ferdinand, had begun, known by the title of "Las Partidas," and he redrafted the confusion in law proceedings, occasioned by intermixing Latin with the vulgar tongue, by obliging his subjects to use their own language. He also corrected many errors in the statutes of the university of Salamanca, and caused a general history of Spain to be composed in the Castilian language, which he took pains in polishing. But his favourite object was astronomy; and to the improvement of this science his attention and labour were particularly directed. With this view he assembled at Toledo, during his father's life, a number of the most celebrated astronomers of his time, Christians, Jews, and Arabsians, from all parts of Europe, for the purpose of examining the astronomical tables of Ptolemy and correcting their errors. They were employed in this business for four years, and in 1252, the first year of Alphonso's reign, they compiled those tables which have been denominated Alphonso's tables, from the name of this prince, who encouraged the construction of them by his liberality. The sum, expended upon them, is immense; if we may believe the report of those who state it at 400,000 ducats or even that of others who reduce it to 40,000. Some have ascribed the principal conduct of this work to the Jewish Rabbi Isaac Aben-Said, whilst others, professing to derive information from the MSS. of Alphonso, refer it to Alchabitius and Aben-Ragel. The other astronomers who were employed on this occasion were Aben-Mula, Mohammed, Joseph Ben-Ali, and Jacob Abueno, Arabians; Samuel and Jehuda El-Conejo, Jews; but the names of the Christians, if any such were actually engaged, are not known. The epoch of these tables was fixed to the 40th of May, 1252, which was the day of his accession to the throne. They were first printed at Venice in 1483; and there are other editions in 1492, 1521, 1545, &c. He is also said to have written a book, entitled, "The Treasure," containing treatises of rational philosophy, physics, and ethics; and to have been well acquainted with astrology and chemistry, in which last science, as report says, there are two volumes, compiled by him, still remaining in his Catholic Majesty's library, in cipher. But considering the state of this science at that period, they must be more curious than useful. Alphonso has been charged with irreligion and impiety,
piety, chiefly on account of a saying of his, that is very well known, and that has been often repeated to his dis-

honour; viz. that "if he had been of God's privy-council, when he created the world, he could have advised him better." If we admit the fact, that he used this expression, of which there is some reason for doubt, as it has been va-

_riously quoted by different writers, it unquestionably indicates a degree of presumption and arrogance not very suitable to the character of a true philosopher. Candidly interpreted, it is to be considered as a kind of Jesu d'espri; or pleasant farce on that perplexing variety of eccentical cycles and epicycles, with which the syltem of Ptolemy was embar-

rassed; but the reflection might have been dictated in terms more decorous, and more consistent with that reverence of the Creator, which an enlarged contemplation of his works has a tendency to produce. "An inept astronomer is mad." Young. Modern Un. Hist. vol. xvi. p. 343—365.

**ALPHONSO, or ALONSO V., derivately called the Magnanimous, king of Aragon and Naples, succeeded his father, Ferdinand the Just, as sovereign of Aragon, in the year 1416. The tranquillity of his reign was disturbed, soon after his accession, by the insolence of pope Benedict XII, and by a conspiracy of several nobles among his own subjects against his life. The discovery of this treason was made just before its execution, and the king had an opportunity of exhibiting a signal display of magnanimity by hearing a paper in which the names of the conspirators were inferred without reading it; declaring at the same time, "that he would at least force them to acknowledge that he had a greater regard for their lives than they had for his."

Having composed a disturbance in Sardinia, he was preparing to advance to Sicily, when Joan of Naples offered to adopt him for her son and heir, if he would aflift her against the pope, the duke of Anjou, and the confederacy she formed to depose her. The king accepted the proposal, raised the siege of Naples by his army, and was im-

mediately installed, by proxy, heir apparent of her kingdom and duke of Calabria. The queen afterwards proving false to her engagement, she was expelled from Naples, which was taken possession of by Alphonso; but when the duke of Anjou made himself master of the greatest part of the king-

dom, the queen renewed her application to the king of Aragon, and he prepared for a new expedition. In 1434 he again renewed his attempts for the conquest of Naples, and besieging Gaeta, he involved himself in a quarrel with the duke of Milan and republic of Genoa. In an engage-

ment with the Genoese fleet, which was sent to relieve the place, Alphonso lost all his ships, and was himself taken prisoner. At Milan, whither he was conducted, he so far ingratiated himself with the duke, that he became his friend and ally; and whilst his own hereditary fates were liberal in their supplies, his power was greater than ever. In 1443 he made himself complete master of Naples, and in an af-

sail of the fates held firft at Beneventum and transferred to Naples, his sovereignty was acknowledged, his son Don Ferdinand, whom he had created duke of Calabria, was recognized as successor to the crown, and he was esteemed the great arbiter of peace and war through all Italy. Al-

phonso continued in Naples till the close of his life and reign; but his declining years were disquieted by political intrigues and diffentions. RefiUes and uneasy, he was re-

moved from one castle in Naples to another, and at length expired on the 22d of June, 1468; leaving to his natural son Ferdinand the kingdom of Naples, which he had ac-

quired by arms, and to his brother Don Juan, king of Na-

zarre, the crowns of Aragon, Valencia, Majorca, Sardinia, and Sicily, and the principality of Catalonia, with all their dependencies. Alphonso was, without doubt, the greatest prince that ever sat on the throne of Aragon, and he was accounted the ablest statesman and the most renowned military commander of the age in which he lived. He was in an eminent degree the patron of learning, and afforded an alms to the Greek letters when they were expelled from Constantinople; his device was a book opened, and it was his common saying, "that an unlettered prince was but a crowned ass." The perusal of Quintus Curtius cured him of a disorder with which he was attacked at Capua; he was brave and liberal, and in all his negotiations he displayed the mean arts of intrigue and dissimulation. He lived in familiar intercourse with his subjects, whom he loved. "A father," he said, when walking unarmed and unaccompanied about his capital, "has nothing to fear in the midst of his children." When he was besieging Gaeta, he relieved and dismission without injury the women and children that were turned out of the town, alledging, "that he had rather lose any city in his dominions than the reputation of humanity." When one of his galleys, with its whole crew and a number of soldiers, was ready to perish, he leaped into a shallopp for its relief, saying, "I had rather share with those its calamities." Upon hearing an officer, who saw his treasurer bringing him 10,000 ducats, exclaiming, "I shold only with that sum to make me happy!" "you shall be paid," said Alphonso; and caused the money to be given to him. He expressed an extraordinary dislike of dancing, which he con-

fidered as a kind of infantry. His greatest failing was an at-

tachment to women; and it was productive of several in-

proprieties of conduct and pernicious consequences. Lu-

cretia Alana was one of his mistresses, and his fondness for her in an advanced period of life very much iullied his repu-

tation; and connections of this kind led him to neglect his wife, who was faithful and affectionate, and very zealous and active in his interests. Mod. Un. Hist. vol. xxi. p. 240—254.

**ALPHONSO'S ISLAND,** in Geography, an island of the In-

dian Ocean, nearly south of the Alhurantes islands, lying in a tract of the sea, little traversed by European vessels. S. lat. 5° 30'. E. long. 52° 40'.

**ST. ALPHONSE'S ISLAND,** an island on the coast of Terra del Fuego, in the South Pacific Ocean. S. lat. 55° 51'.

W. long. 69° 35'.

**ALPHONSUB, PETRUS,** in Biography, a Spanish Jew, was converted to Christianity, A.D. 1166, baptized at Huesca, and had Alphonsub, king of Portugal, for his godfather. He composed a treatise by way of "Dialogue between a Jew and a Christian," concerning the truth of the Christian religion, in which the arguments of the author against the Jews are arranged methodically and urged with clearness and solidity of reasoning. This work was pub-

**ALPHONSUB TOSTATUS,** a learned Spaniard and volumi-

nous writer, flourished in the middle of the 15th century. He finished his studies at the university of Salamanca at the age of 22 years, and made great proficiency in those branches of knowledge that were in principal estimation at that period. He attended the council of Bafil, became bishop of Avila, and was advanced to the chief offices in the kingdom of Spain. He died at the age of 40 years, A.D. 1454, and was in-

terred in the church of Avila, with this epitaph:

"He flupor est mundi qui febile difcuit omne."

His works, written during his comparatively short life, amount.
amount to 27 volumes in folio, of which 24 are commentaries on some of the books of scripture; the rest are chiefly theological; they were printed by the order of Cardinal Ximenes, at Venice, in 1532, at the same place in 1546, and at Cologne in 1612. His "Commentary upon the Chronicle of Eusebius," was printed separately at Salamanca in 1556; as were also several other books in literature and science, and ecclesiastical history. Dupin, 15th cent. p. 83.

ALPHOS, in Medicine, a distemper described by Celsus, under the name of vitiligo; wherein the skin is rough, and becomes sprinkled as it were with drops of white; and thence denominated leucos. Where the spots are black, it is also called nigra; and melana. It bears the same relation to the leucos, as the freckles to the lepra; the first is superficial and cutaneous, the second sinks deeper into the flesh. The albores, melas, and leucos, are but one and the same disorder, only differing in its degree of inveteracy.

ALPIEU. See Basset.

ALPIGNAN, n Geography, a town of Italy, in the principality of Piedmont, on the Dora, five miles west of Turin.

ALPINE. See Cisalpine.

ALPINI, in Ancient Geography, a people of Spain, mentioned by Aulus Gellius and Varro, in whose country were excellent mines of iron and silver. They were situated near the Ebro.

ALPINA, in Botany, so called after Prosper Alpinus, a genus of the monardia monarda genus class and order, of the natural order of jasminaceae and cause of Jullien; the characters of which are, that the calyx is a perianthus one-leaved, tubulofab, three-toothed, the leaflets equal, erect and acute; the corolla monopetalous, tubulofab, two-celled, and short, border three-parted, and parts nearly equal and oblong; the nectary composes with the tube of the corolla, two-parted, the lower part forming the lower lip is larger and longer than the parts of the corolla, broadens, spreading and often divided; the flowers have no proper filament, but along the upper division of the nectary, forming the upper lip, which is flat and of the length of the corolla, grows a large anther, either deeply bid or entire; the stylus has an inferior, oblong germ, style filiform, often inserted into the future of the anther, stigma inconspicuous and obtuse; the pericarpium is an oval capsule, three-celled, crowned with the permanent calyx; the seeds are ovate, angular, and covered with a sort of ridged aril. This genus differs from the amomum and collum only in the habit and the inflorescence, which is racemose. Martyn reckons two, Wildenow four, and Gmelin five species. They are as follow: 1. A. racemosa, with raceme terminal, spikes, flowers alternate, lip of the nectary trifid, and leaves oblong and acuminate. This is the A. jamaicensis of Gartner, the amomum pyramidale of La Maree, the amomum alpinum of Rotboel, and the zigiber sylvestre minus, &c. of Sloane. It is a native of the West Indies. With us it must be preferred in a flove, and the pot plunged into a tub of water; the leaves decay every Winter, and are pulped out from the roots every Spring. It may be increased by parting the roots, when the leaves decay. Gmelin mentions two varieties, A. alpinus of Koenig, and A. multicaulis of Aublet. 2. A. occidentalis, with raceme radical, compound, erect, nectary emarginate at the apex, three-celled capsules, and leaves lanceolate and ovate and smooth. This is the amomum minus, with clothed stalk and spikes of flowers of Brown, Jamaic. It is a native of the woods of Jamaica and St. Domingo. 3. A. speciosa of Gmelin, who queries whether it be of this genus. See Costus. 4. A. langue of Gmelin, with paniculata terminal flowers. He mentions two varieties, viz. Langus chilenium and L. aquaticum of Koenig. 5. A. j虞calis, made by Gmelin a distinct species. 6. A. galanga of Willdenow, having a terminal lax raceme, with alternate flowers, the lip of the nectary emarginate, and lanceolate leaves. This is the maranta galanga, with a simple culm of other writers, the amomum galanga, &c. of Lourie, the galanga of Runphius, and the galanga of the hop. It is a native of the East Indies. 7. A. formosissimum, W. with a terminal tufted spike, bracts longer than the flower and colored, and oblong-ovate pubescent leaves. The calyx is red; the corolla yellow; and the nectary yellow, truncated and quenched-dentated. It is found in Caracas, in South America.

ALPINUS, Prosper, or Prosper Alpinus, in Biography, born at Narbona, in the state of Venetia, in the year 1552, became celebrated for his skill in medicine and botany, which he cultivated with singular success. Having quitted the army, to which he was at first attached, he went to Padua, where he studied physic, and in 1578 was received doctor in medicine, and through the interest of his father, who was also a physician, was appointed in 1580 to attend the Venetian consulate to Egypt. He remained there three years, during which time he applied himself with great industry to acquire a knowledge of the most remarkable plants, indigenous to that country, and of the practice of physic, or the methods used by the natives in curing diseases. These became the subjects of several learned and ingenious works, which he published on his return from Egypt. In 1586, he was appointed physician to Andrew Doria, at Genoa, whence, the reputation of his abilities increasing, he was called home by the states of Venice, and appointed professor of botany and curator of the physic garden at Padua, where office he retained to the time of his death, which happened in November 1616. He was succeeded in the professor's chair, by one of his sons, who had probably been his assistant, as he is said to have been very infirm, and to have laboured under a difficulty of hearing, during some of the latter years of his life. The principal of his works, which have passed through numerous editions, and are in many hands, are, "De Medicina Egyptianorum," lib. iv. first published at Venice, in 1611, full of ingenious information as to the diseases, medicine, surgery, and modes of life of the modern Egyptians; "De plantis Egyptianis liber;" "De Balsamo, dialogus," a treatise on the famous balm of Gilad; "De praefagienda vita et morte Aegyptianis," published in 1601, and confining chiefly a collection and arrangement of the preages of Hippocrates; "De medicina medicalis," being an attempt to elucidate and restore the ancient doctrine of the Methodic sect in medicine, published in 1611: "De Rhapontico difutatio inauguralis;" "De plantis exoticos," all in quarto. He is also said to have left other works in manuscript, that have not been published. Ample accounts of several works, and of the editions they have passed through, may be found in Haller's Bib. Med. Prat. and his Bib. Botanica.

ALPISTE, of Alphia, a sort of food used to feed birds with, especially when they are to be nourished for breeding. The alpine seed is of an oval figure, of a pale yellow, inclining to an ashef colour, bright and glossy. It is an article of the corn chandlers and feedmen's trade. See Phalaris.

ALPS, Alpes, in Geography, was a name given to a chain of mountains, which extended from the sea of Liguria to Iltira, and forming a chain of crescent, separated the northern part of Italy from Gaul and Germany. The name is Celtic, and denotes highly elevated; or, as the author of a German book, entitled, "Rheinischer Antiquarius,""
forges, it signifies \textit{mountains abounding in pasture}. \textit{Feilus} is of opinion that the appellation was borrowed from \textit{albus}, pronounced by the Sabines \textit{alpis}, and signifying \textit{albica}, because their mountains were always covered with snow. Others, recurring to a fabulous relation, derive it from a person of the name of Albion, the son of Neptune, who is said to have been killed by Hercules, in disputing his passage over these mountains. But the first etymology, adopted by \textit{Huidor}, (Orig. lib. iii.) and \textit{Servius}, (in Virgil, \textit{An.} lib. iii.) is the most probable. The word \textit{alpis} signifies, among the ancient Scythians and Scandinavians, both a mountain and a mountain-peak; it being a periphrasis among them, that mountains and rocks were inhabited by demons. Accordingly the Elda of Iceland, (\textit{Myth.} 15.) mentions good and evil \textit{Alps}.

This chain of mountains, commencing in the Vada Sabatia or Savona, and terminating near the Sinus Flanetietius or Flaneticus, now the Golfo di Canaro or Canerno, in the bay of Venice, and the springs of the river Colapis or Kulpe, or reaching from the river Varus to the river Arlia, in Iliria, has many irregular windings, so that its extent has not been accurately and uniformly ascertained; some of the ancient writers making it 800, and others no more than 250 miles. Its whole range may be more justly computed at about 550 British miles; and may be considered as extending in a kind of semicircular form, from the gulf of Genoa, through Swifferland, which contains its central and more lofty parts, and terminating in the Carnic Alps, on the north of the Adriatic sea. It has been divided, both by ancient and modern geographers, into different portions, and these have been distinguished by different appellations.

The \textit{Maritima Alps}, \textit{Alpes Maritimes} or \textit{Littorae} of Tolentini, arise from the gulf of Genoa, and reach from Vada or Vado, in Nice, to the springs of the Var, or to those of the Po. Some reckon their commencement at Monacco, on the Mediterranean, and trace them in their progress from south to north, between ancient Gaul to the west, and Genoa to the east, through the eastern part of the country of Nice, and between that and the maritime of Saluzzo to their termination at Mount Vibo between Dauphiné and Piedmont. Upon the summit of this ridge trophies were erected in honour of Augustus, at a place called Tropea, since called Turbin. The ancient capital of the Maritime Alps was Embranch, and the inhabitants of this district obtained from Nerone, A.D. 63, the rights of Latinity, that is, the rights and privileges which the Latins enjoyed when they were only allies and not citizens of Rome. The highest chain of these Alps, through which is the remarkable passage, called the Colle Tende, forms the external boundary of the country of Nice.

The next high ridge, called \textit{Alpes Cottiae} or \textit{Cottianae}, now Mont Genevre, in which is the spring of the river Durance, extends from the springs of the Var to the city of Susa, or from Mount Vibo to Mount Cenis, and separates Dauphiné from Piedmont; having the \textit{Alpes Maritimes} to the south, and the \textit{Alpes Graiae} to the north or northwest. In the time of the Romans a petty prince called Cultra possessed an independent territory in this part of the Alps; and in order to maintain his independence paid court to Augustus, and engaged his protection. With this view he traversed these mountains, and formed commodious passes for the Roman troops. The territory of Cottiae, a prince who resided at Susa, and whose name was given to this ridge, confined, according to Pliny, of two independent cantons. Hence the passage of the Alps, which led from Braincon to Susa, was particularly denominated in the Theodosian table \textit{Cottia}. M. d'Anville, Haléquin, and others, are of opinion, that it was by this part of the Alps Hannibal entered Italy. Some have thought that one part of his army passed over the Cottian, and another over the Graian Alps. It has been said that he cut a passage through the solid rock; and if Livy may be credited, he heated the rock by a fierce fire, and then poured a great quantity of vinegar upon it, which penetrating into the fissures, produced by the intense heat of the fire, calcined and softened it. But this relation, although Pliny (lib. xxiii. c. 1.) takes notice of this quality of vinegar, is rejected by many authors as fictitious. Polybius does not mention it. The capital of the Cottian Alps was Susa; and this territory was added by Nero, about the year of Christ 65, to the dominions of the Roman empire.

To the north of the \textit{Alpes Cottiae} were the \textit{Alpes Graiae} of the ancients, so called by Pliny and Napoleon, as it has been said, from the passage of Hercules in his return from Spain; which is rejected by Livy (lib. v. c. 33.) as fabulous: these are now denominated the Little St. Bernhard, and commencing at Mount Cenis, where the Cottian end, and running between Savoy and the Tarentese to the west, and Piedmont and the duchy of Aosta to the east, terminate in Great St. Bernard.

The \textit{Alpes Penninæ} lay to the north-east of the Graiae, between the Velagri to the north, and the Salafii to the south. Some have sought the etymology of the epithet in the name \textit{Pomii}, Carthaginians, pretending that Hannibal passed into Italy by this mountain. But both the etymology and the fact are equally erroneous. The appellation \textit{Penninæ} formed from \textit{pen}, head or high, signifies the height of these mountains; and the passage of Hannibal was probably over that part of the Alps, denominated Cottian. The \textit{Alpes Penninæ} confided of the present Great St. Bernard, Mont Blanc, and the grand chain that extends on the south of the Rhone to the north of the modern Piedmont, and reached from west to east from St. Bernard to Adula or St. Gothard, separating between the Velese to the north, and the Mala- se to the south: and the eastern part of this ridge was denominated the Lepontine Alps, from the appellation of a people who inhabit the country where the rivers Rhone and Tetina originate. From the \textit{Alpes Penninæ} proceed the \textit{Alpes Rhodii}, which extend through the Grisons and the Tyrol, to the springs of the river Piave, of which a part called \textit{Alpes Tridentinae} are situated to the north of Trent. With the Rhodii are connected the \textit{Alpes Noviorii}, to the east of the former, situated about the source of the river Tajo- mento; and joining to the \textit{Alpes Carnicas} or Carnienses, extending to the springs of the Save; and moreover, these terminate in the \textit{Alpes Julii}, which reach to the source of the Kulpe. These last derive their name from Julius Caesar, who formed a design, executed after his death by Augustus, of opening a road over this mountain into Illyria, which is separated by it from Venice. This part of the Alps is also called \textit{Alpes Venetae}, and \textit{Alpes Penninæ}. Some authors have extended the Alps to the north of Da- matia, and even through Macedonia into Romani- a, and as far as the coast of the Black Sea.

The principal passages of the Alps, of which the Romans availed themselves, when they were foes masters of Italy, as they are recounted by Martiniere, are the following: The first was through the maritime Alps along the sea coast; the second by the Greek Alps, by which, according to Pliny, Hercules entered into Italy, and which, as Celsus Antipater, cited by Livy, says, was the track of Hannibal: the third by the Cottian Alps, by Embrun, Briançon and Susa, which, some say, was Hannibal's course: the fourth, more generally pursued by modern travellers, through the valley of Maurienne, by Susa and Turin: the fifth by the Penninæ.
nine Alps, which, according to Polybius and Pliny, was that of the Carthaginians, though Livy is of a different opinion; this route is divided into that of the valley of Pe-
tian, which is the broadest, and that of the valleys of Aosta
and Bardo, which is the longest; the fifth, through the
Pennine Alps by Adula, or Mount St. Gothard, and Bel-
fon; the seventh, over the Rhettian Alps, by the Lake
Verbanus and Cusino, which was the route of Drusus
and Tiberius, when they carried on the war in Rhettia, and also
of Silicho: the eighth, by which the Cimbri entered into
Italy; the ninth, by the Carnic Alps; and the tenth, by the
Julian Alps, which was the usual track of the Roman troops
into Pannonia and Illyria.

The central part of this chain of mountains, the most
tenuous and elevated of any in Europe, may be considered
as composed of two ridges, which run almost parallel from
the south-west to the north-east. The first ridge is that
of the Helvetic Alps; and its most conspicuous summits
are the Guemmi, or Twins, the Schellenhorn, the blumus,
the Geifhorn, the Jungfrau or Virginhorn, the Eigir, the
Schreckhorn, the Grimelf, the Furca, the Badar, the Glac-
iers to the north of the Rhine, and St. Gothard.

The highest mountain of the northern chain of the Alps
seems to be Jungfrau; and the next in height are the
Eiger, and the Schreckhorn, and the Finsteraar Horn.
According to Mr. Kiwanz (Geo. Ess. 212. 215.) the height
of these mountains does not exceed 10,000 feet; and he
observes, that they consist of granular, or primitive lime-
stone. Sanfurre (vol. VII. p. 193.) says, that the Schreck-
horn, and Finsteraar are about 13,218 feet high. Bourrit
informs us (vol. III. p. 194.) that the Schreckhorn is the
highest of the Swiss Alps. The summits consist of gra-
nite; and on the sides appear red slate and calcareous
masses. To the south are large defarts and glaciers, and on the north
is the romantic lake of Kandal Steig, "whence (as we
learn from a modern geographer) there is said to have been
a passage to Lauterbrunnen amidst singular glaciers, sometimes
reflecting magnificent towns of ice, with pillars, pyramids,
columns, and obelisks, reflecting to the sun the most brilli-
ant hue of the finest gems." The southern chain of the
central Alps extends from Mont Blanc, and other emi-

ences to the west, and bearing to the north-east comprises
the Great St. Bernard, Mount Maudit, Combin, Cervin,
and Mount Rosa. It traverses northward the vicinity of the lakes
Locarvon and Como, under the various denominations of Vogelberg, St. Bernardine, Splugger, Albula, Beraini, &c. and stretching into the Tyrol, terminates in the Brenner, or Rhetian Alps, on the south of the Inn,
extendimg even to Salzburg; and the first chain to the north
of that river separates Bavaria from Tyrol. This
chain of the Italian Alps, proceeding from Mount Rosa,
through the country of the Grisons to the Glaciers of Ty-
rol, and terminating in the Salzian Alps, should form the
boundary between Germany and Italy, as they pass through
the centre of Tyrol, and as the Italian Alps to the north of
the former Milanese and Venetian territories, are of com-
paratively small elevation. The highest of the Italian Alps
belong to the country of Piedmont.

"It was revered," says the modern geographer already
cited (p. 583.), "for this age of enterprise to displace the
secret wonders of the Alps. The enormous ridges clothed
with a depth of perpetual snow, often crowned with sharp
obelisks of granite, rilled by the Swiss horns or needles;
the dreadful chains of some thousand feet in perpendicular
height, over which the dauntless traveller sometimes flings
on a sheet of frozen snow; the glaciers, or seas of ice, some-
times extending 50 or 40 miles in length; the sacred
silence of the scenes before unvisited, except by the chamois
and goats of the rocks; the clouds, and sometimes the
thunder storm, falling, at a great distance below; the ex-
tensive prospects, which reduce kingdoms, as it were, to a
map; the pure elasticity of the air, exciting a kind of in-
corporal elevation; are all novelties in the history of hu-
man adventure."

From Sanfurre we learn, that the highest summits of
these mountains consist of "a large grained granite; the
mixture being white opaque felspar, pyroxil, or white semi-
transparent quartz, and mica, in small brilliant sheets, forming
what is called the white granite. The colours vary; and
sometimes hornblende, fuchor, garnets, or pyrites are inter-
spersed. The construction seems to consist of flat pyramids
of granite, standing vertically, disposed like the fruit of the
artichoke; those of the centre being most upright, while
the others bend towards them. These flat pyramids commonly
stand, like the grand chains of the Alps, in a north-
west and south-west direction. Beneath, and incumbent on
the granite, especially towards the north, appear large masses
of slate, which are followed by exterior chains of high cal-
carous mountains." For a further account of the Alps,
see Cooke's Switzerland, Sanfurre, Bourrit, and the articles
BLANC, GOTHAIRD, ROSA, &c. in this Dictionary.

ALPS, in Geography, besides its proper signification,
by which it denotes a certain chain of mountains, which sepa-
rate Italy from France and Germany, is sometimes used as
an appellation to denote any mountains of extraordinary
height. In this sense, Auonius and others called the
Pyrenean mountains, Alpes; and Gellius, the Spanish Alps,
Alpini Hispani. Sidonius gives the same appellation of Alpis
to Mount Athos. Other authors speak of Norman Alp,
Alpes Artenae, Alpes Alpaccum, Alpes Dauniae, Alpes Romanes,
Andes, Alpes Boieratrices. The Apennines are also called by
Johannes Villererus, Alpi D'Apeuni. Thus also the British
Alps denote the highest mountains in Britain; such are the
Grampian hills, Ben Nevis, and other mountains of the
Highlands in Scotland; such are Snowden, &c. in Wales,
Snowdon, Skiddaw, and Creffell, in England. To the
Alpine Alps we may refer the Alpav and Jermurian
mountains; and to the American the Alleghany and
Appalachian of North America, and the Andes of the
South.

ALPS is also used to denote pastures on the mountains,
wherein cattle are fed in the summer time; or rather in the
valleys, and spaces between the mountain tops. Some have
this to be the primary signification of the word Alp,
which is supposed by these authors literally to denote
the lights or apertures between hills.

ALPS, LOWER, Department of, is one of the four com-
posed out of the C-devant Provence, in France. It is
bounded on the north by the department of the Upper
Alps, on the east by Piedmont and the department of the
Maritime Alps, on the south by the department of the Var,
and the north-east extremity of that of the mouth of the
Rhine, and on the west by the departments of Vaucluse
and the Drome. Its chief town is Digne. Its superficies is
about 1,459,699 square acres, or 1,44,967 hectares; its popu-
lation comprehends 1,44,967 individuals; and it is divided
into five communal districts.

ALPS, UPPER, Department of, makes a part of Dauphine,
which contains three. It is bounded on the north by the
departments of Mont Blanc and Here, on the east by Pied-
mont, on the south by the department of the Lower Alp,
and on the west by that of the Drome and part of that of Here.
The chief town is Gap. Its superficies is about 1,084,614 square acres, or 553,569 hectares; its population comprehends 116,754 persons; and it is divided into three communal districts.

ALP, Maritime, department of, is formed of the country of Nice. It is bounded on the north by the Apenines and the department of the Lower Alps, on the east by the republic of Genoa, on the south by the Mediterranean, and on the west by the department of the Var and Lower Alps. Its chief town is Nice. Its superficies is about 632,619 square acres, or 322,674 hectares; its population amounts to 93,666 persons; and it is divided into three communal districts.

ALPSE, a lake of Switzerland, being a continuation of the lake of Lucern.

ALPSTÉIN, the denomination of a chain of mountains in Switzerland, which separate the canton of Appenzel from Teggenbourg, the barony of Saxo and the Rhinthal. It was formerly the limit between the country of the Rhenish or Grifins, and the landgrave of Turgovia.

ALPUERTE, a town and castle of Spain, in the kingdom of Valencia, to the west of Segorbia and the Rhinthal. It is generally situated, and the territory is fertile. N. lat. 39° 50'. W. long. 1° 6'.

ALPUXARRAS, Las, are high mountains of Spain, in the kingdom of Granada, on the coast of the Mediterranean; their summits are visible not only from Gibraltar, but from the coast of Africa, between Ceuta and Tangier, and they extend from Velez to Almeria, and are about 17 leagues in length from east to west, and 17 leagues in breadth from north to south. This canton is one of the most populous and best cultivated in Spain; it is intersected with villages, and covered with vines and other trees. It produces corn, wine, fruits, and good pasture, and also silk. The air and weather in this district are temperate and healthy. The inhabitants were originally Moors, and they are distinguished from the other Spaniards by the simplicity of their manners, the rudeness of their language, and their diligence in labour.

AQUIER, which is also called CANAR, a liquid measure for oil, used in Portugal. It contains six COLUMNOS, or CANADORS. Two Alquiers make an Almeida, or Almeido.

AQUIFIO, or ARQUIFO, as the merchants spell it, is a sort of mineral lead, very heavy, easily reduced into powder, and hard to melt. When it is broken it parts into shining scales, much like the colour of needles of antimony. The potters use it to give their work a green varnish. In England it is commonly called potter's ore. It is found in Cornwall; the potters mix manganese with it, and then the varnish, or glazing, on their wares becomes of a blackish colour.

ALQUIVITE, or CUEVETO COAST, in Geography, a part of the coast of South America, which is washed by the Pacific Ocean, extends from the Morro del Bonifacio, at the entrance of Baldia in the south distant 15 leagues to the river Imperial, on the north distant ten leagues. That on the south is the lowest and flatted land on the coast of Chili; but that to the north is higher, and in most places bold, with the exception of the fideals that run south-west from the island Mocka, north-west by west from the river Imperial. Alquivite is in S. lat. 36° 40'. W. long. 76° 50'.

ALRAMFCH, or ARAMECH, in Astronomy, the Arabic name of a star of the first magnitude, otherwise called ARCTURUS.

ALRAUPE, in Ichthyology, a name given by the Germans, to the myliodes fluviatilis, or eclipnut, a species of the Gadus.

ALRED, Alfred, or ALURED, in Biography, an ancient English historian, was born at Beverley, in Yorkshire, and educated in the university of Cambridge. Having acquired a considerable knowledge of divinity, philosophy, and history, he returned to his native country; became a regular priest, and was appointed a canon and treasurer of the church dedicated to St. John of Beverley. His "Annals," containing the history of the Britons, Saxons, and Normans, were continued to the 29th year of Henry I. and he probably died in the year 1128 or 1129. From the preface to his work it appears that he was rather poor than rich, and much devoted to his studies. His abridgment of our history, from Brutus to Henry I. is one of the most valuable pieces that has escaped the rage of time, and the indifferenct of our first reformers. It is written in a concise, elegant, Latin style, with great perspicuity, and an uncommon attention to dates and authorities; so that he may be justly regarded as our English Florus. Leland has omitted Alfred, in his collection of British writers, because he considered his work as merely an abridgment of Jevry's of Mounmouth's British History; whereas, it is not only doubtful whether Alfred ever saw Jeffrey's history, but probable, from a variety of circumstances, that this history was published after Alfred's Annals.

This work was published by Mr. Hearne, at Oxford, in 1716, from a MS. which belonged to the famous Thomas Rawlinson, Esq. under the title of "The Annals of Alured of Beverley;" and in a preface to it, Mr. Hearne has indicated the author from the charge of plagiarism, which has injured the reputation of this valuable compendium of British history. Although Huntington, Hoveden, Malmebury, and other writers have praised summaries of ancient history to the accounts they have left us of their own times, yet none of them, says a very competent judge, are to be compared, in point of accuracy or elegance, with this history, which deserves to be translated and to be continued, with the same spirit, to later times. Besides this work, which has been mentioned under different titles, Alured vrote no other, except "The History of St. John of Beverley," a collection of records, which has never been printed, but is preserved in the Cotton Library, under the title of "Libertas Ecclesiæ, S. Johannis de Beverlik," &c. .

ALRESTORD, in Geography, a town of Hampshire, situate in the road from London to Winchester on a small stream, which, by means of a large pond as a reservoir, with locks and aqueducts, was formerly navigable by barges and lighters to Southampton; but the navigation has for several centuries reached no farther than Winchester. It consists of about 200 houses, one church, and two principal streets, and has a small manufacture of linen. Its market is on Thursday. It is distant from London somewhat more than 57 miles.

ALROE, a small island of Denmark, in the bay of Hordens and prefecture of Aakir, belonging to the diocese or general government of Aarhus.

ALRUKAK, in the Materia Medica, a word used by Avicenna, and others of his nation, for what was called by the Greeks hysa blanes, or manda tharis. This was the fragments of frankincense, which were broken off from the larger pieces in the collecting or packing up, and were most esteemed in medicine, as being the drier and purer kind.
ALRUM, in the Botanical Writings of the Ancients, a name given to the tree which produces the *balsams*. This gum was originally known to be the exudation of a tree growing in Arabia and the East Indies, and well known to Avicenna, and others, and by all of them called by that name.

ALRUNES, a name given by the ancient Germans to small figures of wood, of which they made their *lakes*.

ALSA, now Ansa, in Ancient Geography, a small river of Italy, which passing by Aquileia discharged itself into the Adriatic. Near this river Constantine, the son of Constantine the Great, fighting against his brother Conflans, lost his life.

ALSACE, was before the revolution a province of France; bounded on the east by the Rhine which separated it from Swabia, on the south by Switzerland, and part of Franche Comté, on the west by Lorraine, from which it is separated by the chain of mountains called Walgau or Les Voyges, and on the north by the Palatinate of the Rhine; and comprehend between 47° 32', and 49° 8'. N. lat. and 6° 14' and 7° 24' E. long. This has been reckoned one of the most fertile and plentiful provinces in Europe, abounding in corn, wine, oil, flax, tobacco, fruits, and pulse, of various sorts, wood and excellent pasture. The part of this province that lies betwixt the rivers Ill, Haardt, and the Rhine, is of narrow extent, and less fertile than the other parts; but the district that borders upon Switzerland and Mount Saverne, and the levels about Strauburg to the Rhine, are very fruitful and agreeable, and produce abundance of grain, tobacco, culinary vegetables, saffron and hemp. The mountains towards Lorraine are high and covered with fir, beech, oak, and horn-beam. The forests of this province are numerous, and furnish great quantities of wood both for fuel and building; as well as plenty of deer and game of all kinds, and it is in general diversified with hills and vales, which render it fertile and productive. Alsace has mines of silver, copper, iron, and lead; and it has also various mineral waters and baths. Its rivers are numerous, of which the principal is the Rhine, and it has also several lakes. The number of inhabitants, who are mostly Lutherans and Roman Catholics, was formerly computed at about half a million; their common language is the German, though the French is generally understood and principally spoken by people of superior rank, and in the towns. This province was divided into Upper and Lower Alsace; the former contained 32 large and small towns, and the latter 39; and in both there are upwards of 1000 market towns and villages. By the late division of France, this province forms two departments, viz. those of the Upper and Lower Rhine, the capital of the former being Colmar, and that of the latter Strauburg.

This province was anciently inhabited by the Rauraci, Sequani and Mediomatrici. Its name first occurs in the history of France under the Merovingian kings; and it is most probably derived from the river El, or Ill, the inhabitants on the borders of which were called Elsifin, from whom the country itself was afterwards denominates Elifas, in Latin Elstia, Alstia, and Alastia. From the Celte it fell under the dominion of the Romans; from them it passed to the Germans, and after the battle of Tolbiac, or Zulbich, gained by Clovis in 496, it was possessed by the Franks. It was afterwards incorporated with the kingdom of Aquitania, and in 752 it was subject, like the rest of the monarchy, to the laws of Pepin and his successors. At the decease of Lewis Debonnaire in 840, his eldest son Lotharius obtained it, and he joined it to that part of the empire of the Franks which fell to him, and which was called the kingdom of Lotharingia or Lorraine. Lotharius II., his youngest son, inherited it; and after him in 869, it became a province of Germany, and was governed by dukes. About a century before the extinction of dukes, the provincial counts, who governed under them in Alsace, assumed the title of Landgraves, and the counties over which they presided were called Landgraves, one superior and the other inferior. In 1337, the bailiff part of the inferior Landgrave was conveyed to the bishop of Strauburg, who called himself Landgrave of Alsatia. The government of Alsatia was afterwards conferred by the emperors on several houses, till Ferdinand I. gave it to the German line of his own house; and accordingly it continued in the hands of Austria. At the peace of Munster, in 1648, the emperor ceded far over to the crown of France all right to the town of Brède, landgrave of Upper and Lower Alsatia, Sundgau, and the district of the ten united imperial cities in Alsatia, with the whole sovereignty belonging to them. By the peace of Ryswick, in 1667, the emperors and the empire ceded to France the perpetual sovereignty of the city of Strauburg, and of all its dependencies, on the left side of the Rhine.

ALSADAF, in the *Materia Medica*, a name given by Avicenna and Serapio, to the *unguis albaratus*, and also to the *mures*, or purple thistle, of the stem of which it was supposed to be a part.

ALSAHARATICA, a name used in *Botany*, by some, to signify the *parthenium*, or *erferew*.

ALSACHURC, in the *Materia Medica*, a name given by Rhazes, and some others of the old writers, to the *skyn*, a small animal of the lizard kind, formerly used in medicine as a cordial, and as a provocative to venery.

ALSCHAUSEN, or Alshausen, in *Geography*, a free imperial village of Germany in the circle of Swabia, in a commandery of the same name belonging to the Teutonic order, within the bailiwick of Alsatia and Burgundy. It has a castle which is the residence of the country commandery of this bailiwick, and it lies betwixt the dioceses of Altenf and the counties of Königsberg, and Scheer. The title of this place to jurisdiction in ecclesiastical and civil matters has been frequently contested by the Teutonic order.

ALSCHWANGEN, a town with a castle of Poland, in the duchy of Courland, and parish of Alschwang.

ALSCHENFEN, in Botany, a name used by some authors, for *wormwood*.

AL. SEGNO, in *Medici*. Thrice Italian words are used when a return is made to a former part of a movement, where this mark or character appears: *sq. as who should bay, return to this sign *sq*. This is an expedient to save the trouble of writing, or expense of printing certain portions of a movement that are to be repeated. Thus *du capo* implies that a whole strain is to be repeated from the beginning.

ALSEN, in *Geography*, an island of Denmark, situated in the lesser Belt, or entrance into the Baltic Sea, near the coast of Slefwick, to which it belongs; and separated from the main land by a narrow channel called Aisen-fund. Its extent is about six leagues in length, and two in breadth; the soil is fertile, and produces plenty of fruit, and, wheat excepted, all kinds of grain, together with large crops of 

*Botany*, a name used by some authors, for *wormwood*.
into south and north Harle, called Sonderburg and Nor- 
berg prefectures. It is about 100 miles west of Copen-
hagen.

ALSENS, a river of Germany, which runs into the Ill 
near Placentz.

ALSENS, a town of Germany, in the circle of the Upper 
Rhine, and duchy of Deux-Ponts; 28 miles west of 
Worms.

ALSENZ, a town of Germany, in the circle of the 
Upper Rhine, and principality of Nassau-Weilburg, seven 
miles south of Creutzbach, and 40 north-west of Man-
heim.

ALSFIELD, a very ancient town of Germany in the 
circle of the Upper Rhine, in Upper Hesse, in a prefe-
brate of the same name. It lies near the river Schiwalm, 
and has an old castle and two churches; and it is the first 
town in Hesse which received the confidion of Augsburg, 
being formerly more wealthy and populous than it is at present.

N lat. 50° 40'. E. long. 9° 9'.

ALSHA, a beautiful city in Buckharin, suppos'd to be 
that which is now called Tashkunt, or Tashkend.

ALSHEDA, a parish of Smaland in Sweden, where a 
gold mine was discovered in 1748.

ALSHEDT, a town of Germany, in the circle of the 
Lower Rhine, 10 miles north of Worms.

ALSIMBEL, in the Materia Medica, a name given, 
by Avicenna and others, to the spikenard of India. It 
is thus called from its having the appearance of a spike, or 
car, and also finn.APPLICATION, a word which signifies its being a 
congeries of many spikes, or ears; and such is much of the 
spiritus Indica, or Indian spikenard, that we receive at this 
day.

ALSINA, in Botany. See THEELIGONUM.

ALSINANTHEMUM. See ARENARIA.

ALSINASTRUM. See COSTUS and ELATINE.

ALSINE, formed of "Also" a grove, chickweed, Eng. 
morgellia, Fr. in Botany, a genus of the pentandria trigyna 
class and order, and of the natural order of Caryophyll: 
its characters are, that the calyx is a five-leaved perianthum, 
leaflets concurve, oblong and acuminate; the corolla has five 
equal petals, longer than the calyx; the stamina consist of 
capillary filaments, the anthers roundish; the pistil has a 
subovate gynoecium, filiform, and filigrons obtuse; the pric- 
icapium is an ovate, one-celled, three-valved capsule, cov-
ered with the calyx; the seeds are many and roundish. 
Martyn reckons three, and Gmelin five species.

1. A. media, holotome Alison of Swartz, common chickweed, 
with petals bipartite, and leaves ovate-cordate. The num-
ber of flaments in the flower of the common chickweed is 
uncertain, from three to ten. This species in different 
ofiils and situations assumes different appearances; but it is dis-
tinguished from the cerasifera, which it most resembles, 
by the number of pistils, and by having the petals shorter 
than the leaves of the calyx, and from all the plants related to 
it, and particularly the stellaria nemorum, by having the 
flame alternately hairy on one side only. Dr. Withering 
refers it to the stellaria, with which genus it agrees in 
various respects, and especially in the capsules opening 
with six valves. He observes, that it grows almost in all 
situations from damp and almost boggy woods, to the driest 
and gravel walks in gardens; but in these various flates its ap-
pearance are very different, so that those who have only 
taken notice of it as garden chicken-weed would hardly 
know it in woods, where it sometimes exceeds half a yard 
in height, and has leaves near two inches long, and more 
than one inch broad. In its truly wild state, he says, in 
damp woods, and hedge bottoms with a northern aspect, it 
has almost always ten flaments; but in drier soils and more 
funny exposures, the flaments are usually five or three. Dr. 
Smith (Flor. Brit. vol. ii. p. 473) also refers it to the 
genus stellaria, and characterizes it under the species of 
stellaria media, with ovated leaves and pendunc-
emente, having the lateral line alternately hairy. 
When the flowers first open, the peduncles are upright; as 
the flowers go off, they hang down; and when the seeds 
ripen, they again become upright. Dr. Withering observes, 
that the flowers are upright, and open from nine in the 
morning till noon; but if it rains, they do not open. After 
rain they become pendent; but, in the course of a few 
days, rise again. In gardens or dunghills chickweed sheds 
abundance of seeds, which are round, compressed, yellow 
and rough, with little tubercles; and thus becomes a trou-
blesome weed; but if it be not suffered to seed, it may be 
destroyed, as it is annual, without much trouble. This 
species is a remarkable instance of the deep of plants; for 
every night the leaves approach in pairs, including within 
their upper surfaces the tender rudiments of the new flower; 
and the uppermost pair but one, at the end of the flake, 
is furnished with longer leaf-flakes than the others, so 
that they can close upon the terminating pair, and protect 
the end of the branch. The young flouts and leaves, when 
boiled, can scarcely be distinguished from Spinach, and 
are equally wholesome. Swine are very fond of it; 
cows and horses eat it; sheep are indifferent to it; and 
goats refuse it. It is a grateful food to small birds and 
young chickens. For medical purposes this herb was for-
erally employed in cataplams against inflammations; and 
its expressed juice, or decoction, given also internally, as an 
apertensive, antiphlogistic, and a restorative, probably for 
abating hectic heats, in astrophies and con-
fumptions. The virtues ascribed to it, says Dr. Lewis, do 
not appear to be wholly without foundation; though its 
active matter is so far divided and diluted in the herb, as 
sparingly to manifest itself till separated from the grocer 
parts. This plant is found wild in most parts of the world. 
It is annual, and flowers almost throughout the year.

2. A. vegetalis, with entire petals, and awl-shaped leaves. 
This, according to La Chenal in Hall. helv. is the fame 
with the ARENARIA transilvis. It is annual, and grows 
about Paris and in Piedmont. 

3. A. mucronata, with entire, short petals, flatish leaves 
and awned calyces. This is a native of France and Switzerland, and introduced 
to KEW GARDEN, in 1777, by Dr. Gounin. 

4. A. perforata, with oblong leaves, and dichotomous 
prostrate flake. Fork. 

5. A. graminifolia, with lanceolate, 
rigid, hairy leaves, and erect three-flowered flake. 
Arduin sp. ii. tom. x. See ARENARIA, CALLITRICHES, CAMPAN-
ULA, CENTAECUS, CERASTIUM, CORNIGOILIA, CUC-
BARIUS, DRABA, FRANKENIA, GLAUX, GLINES, GYPS-
OPHILA, HOUSTOEUM, ISNARDIA, LINUM, LIMOSILLA, 
LYCHNIS, MOHERINGIA, MOLLUGA, NAMA, OLDENLAN-
DIA, PEPLIS, PHARMACEUM, SAMULUS, SIBTHORPIA, 
SILENE, SPARGULA, STELLARIA, TRIDENTALIS AND 
VE-
RONICA.

ALSINE, Affinis. See ANDROSACE.

ALSINES Facie. See THEELIGONUM.

ALSINEFORMIS. See MONTIA.

ALSINELLA. See SAGINA.

ALSINOIDES. See BUFOINA and MONTIA.

ALSIAT, in the Mahometan THEOLOGY, a bridge laid 
over the middle of hell, finer than a hair, and sharper than 
the
the edge of a sword, over which the people are to pass, after their trial on the day of judgment.

To add to the difficulty of the passage, Mahomet affirms, that the avtar, narrow as it is, is beset with briars and thorns; none of which, however, will be any impediment to the good, who shall fly over it like the wind; Mahomet and his Mussulmen lead the way; whereas the wicked, by the narrowness of the path, the entangling of the thorns, and extinction of the light, which directed the former to paradise, will soon miscarry their footing, and tumble headlong into hell, which is gaping beneath to receive them. See Sale's Prelim. Dis. to Koran, sec. iv. p. 90. See Mahometans.

ALSIZT, in Geography, a river of the Netherlands, which pales by the city of Luxemburg, and runs into the Sour near Diezich.

ALSIUM, in Ancient Geography, a city of Italy in Etruria, occupying, according to Plutarch, the spot where Palo now stands. If it was built by the Aborigines long before the Tyrhenians invaded Italy, as we are informed by Dionyfus Halicarn. it must have been founded not long after the dispersion in the days of Peleg. Silius Italicus (lib. viii. v. 475.) refers its origin to the Trojan times, and says, that it was built by Alcis, the friend of Agamemon; but some have conjectured, that Alcis or Alfa, its founder, was Elipha, the son of Java, mentioned in Scripture. Velercius Paternicus (lib. i. c. 14.) relates, that it became a Roman colony, towards the end of the first Punic war. It was situated 18 miles from Portus Augusti, and south-east of Carth.

ALSLEBEN, in Geography, a town in Saxony, in the circle of Upper Saxony and the principality of Anhalt-Dessau, and in the bailiwick of Great Alsfien, which has a princely palace built in 1666; nine miles south-west of Bernburg. N. lat. 51° 38'. W. long. 11° 29'.

Alsleben is also a small town of Germany, in the circle of Lower Saxony and principality of Magdeburg, and in the bailiwick of Alsfien, situate on the Saale, and consist of 168 houses. The revenues of the collegiate church have been transferred to the cathedral of Magdeburg. The old village of Alsfien lies by near the town walls as to seem to be a suburb of it. It is 22 miles south of Magdeburg.

ALSO-SAYO, a town of Hungary, in the Csehasszéf of Somor, situate on the banks of the Saale. A quantity of cinnabar is dug in its neighbourhood.

ALSO-DANY, a small town of Hungary, in the district of Ofzlan and Rewischtye jurisdiction, to which belongs a mineral water.

ALSO, Anthony, in Biography, an English poet and divine, was educated at Westminster school, and from thence elected to Christ-church college, Oxford. He was soon after his admission to the university distinguished by Dr. Aldrich, and published "Fabularum Aesopica- rum delectus." Oxon. 1698, 8vo. with a preface, in which he took part with Mr. Boyle in the dispute between him and Dr. Bentley. He passed through the gradation of offices to that of canon at the college with reputation, and had the care of several of the principal noblemen and gentlemen of the society; and in this situation he continued, till Sir Jonathan Trelawny, bishop of Winchester, appointed him his chaplain; and soon after gave him a prebend in his own cathedral, together with the rectory of Brightwell in Berks, from which no solicitations to a higher station could induce him to remove. In 1717 he was called in an action for the breach of a contract of marriage, with 2000l. damages; and on this occasion he left the kingdom. The duration of his exile is not ascertained. But his death, which happened in 1726, was occasioned by his falling into a ditch near his garden door. A part of his was published in 1753 by Sir Francis Bernard, under the title of "Antonii Alsiæ, sive Chralii Olarii Aesopicae fabulae." Four English poems, by Aslop, are in Dilly's collection, one in Peach's, several in the early volumes of the Gentleman's Magazine, and some in the Student. He was a pleasant and instructive companion, and not rigidly restrained by the forms of his profession. Mr. Allop is respectfully mentioned by the factious Dr. King of the Commons, (vol. ii. p. 295) as having enriched the commonwealth of learning by "Translation of Fables from Greek, Hebrew, and Arabic," and no less contemned by Dr. Bentley, under the name of "Tony Allop, a late editor of the Aesopian Fables." Biog. Dict.

ALSO, Vincent, an English nonconformist divine, was born in Northamptonshire, and educated at St. John's college, Cambridge, where he took the degree of master of arts. Having taken decan's orders, he settled at Oakharn in Rutlandshire, as assistant in the free-school. Having imbibed the principles of nonconformity, he was ordained among the presbyterians, and exercised his ministry at Waltham, in Northamptonshire, whence he was ejected in 1662. After this event he preach occasionally, and was imprisoned six months for praying with a sick person. Being known to the world by a book which he wrote in an admirable style against Dr. Sherlock, he was invited to settle with a congregation of presbyterians in Westminister; and in this situation he fortunately escaped fines and imprisonment, because his christian name, which he studiously concealed, was not known to the informers. At the commencement of the reign of James II. Mr. Allop's son engaged in treasonable practices, and obtained the king's pardon; and this act of clemency seems to have attached the father to the royal interest. In the address which was presented to the king for his general indulgence, and which is supposed to have been written by Mr. Allop, he intreats his Majesty to believe, "that loyalty is not entailed to a party," and professes for himself and his brethren, their gratitude and good wishes; to address the king replied, that he was happy in observing two good effects of his declaration, the clemency and patience of his subjects, and rejoining to God the empire over his confidences; adding, "it has been my judgment a long time, that none has, or ought to have any power over the conference but God;" and expressing his hope, "to live to see the day, when you shall as well have Magna Charta for the liberty of confidences, as you have had for your properties:" closing with this admonition: "and now, gentlemen, do you so preach to your hearers, as they may be good Christians, and then I do not question but they will be good subjects." After the revolution, Mr. Allop, though he retained a grateful respect for the memory of king James, became zealous attached to the government and interest of king William. He lived to an advanced age, and died on the 8th of May 1733. It is said, that though on grave subjects he wrote with a becoming seriousness, yet when wit might be properly shewn, he displayed it to great advantage. To this purpose we are referred to his "Antiforza," in vindication of some great truths opposed by Dr. William Sherlock," Svo. 1675. He also wrote, "Melius Inquirendum," in answer to Dr. Goodman's "Compassionate Inquiry," Svo. 1679; "The Mitchief of Impostures," in answer to Dr. Stillinge's "Mitchief of Separation," 1682, with several single sermons. Biog. Brit.
ALSTADT, in Geography, a town of Prussia, in the Oberland, near Prejutmark.

ALSTEDIUS, John Henry, in Biography, a German Protestant divine, and one of the most voluminous writers of the 17th century. He was born about the year 1588, and was for some time professor of theology and philosophy at Herborn, in the county of Nassau, and afterwards at Alba Julia, in Transylvania, where he died in 1648. He was one of the divines that attended at the Synod of Dort. He was an industrious compiler of systems of sciences. His principal work is his "Encyclopaedia," printed at Lyons in two volumes, folio, in 1649. Vossius speaks with commendation of that part which comprehends arithmetic. His "Theophrastus Chronologicus," has passed through several editions. His "Triumphus Biblicus," was written with a view of shewing, that all arts and sciences may be deduced from the Bible. His "Theologia Polemica," was answered by Himmelius, divinity professor at Lena. His other works are "Philosophia refutata," "Elementa Mathematica," "Methodus formandorum Studiorum," printed at Strasburg in 4to. in 1610; "Templum Mucicum, or Musical Synopsis," which is so formal as to resemble a logical rather than a musical treatise; and a treatise, "De Mille Annis," published in 1627, in which he maintains the Millenarian doctrine, or that of Christ's reign on earth for 1000 years, and fixes the commencement of this reign in 1694. The character of this writer has been well comprised in a single anagrammatic word, "Sedulitas." Gen. Dict.

ALSTER, in Geography, a river of Germany, which runs into the Elbe near Hamburg. It passes through the city, and forms a lake nearly half an English mile in circumference, which in summer evenings is covered with all sorts of pleasure-boats, affording to the spectators a very amusing spectacle.

ALSTON, Charles, (M.D.) in Biography, a botanical and medical writer, was born in the western parts of Scotland in the year 1683. He early applied himself to the study of botany, and opposed, with considerable ingenuity, the sexual system of Linnaeus. When 35 years of age, he went to Leyden, and studied three years under Boerhaave. Returning thence with his friend Alexander Mono, he was materially instrumental in establishing a school of medicine in the College at Edinburgh, of which he was appointed professor of botany and the materia medica. In this post he continued to the time of his death, Nov. 1760.

In the fifth volume of the Edinburgh Med. Essays, we have a short paper by Alston on the efficacy of the powder of tin in destroying or expelling worms from the bowels. He obtained the prescription, he says, of an empiric, who was famed for his skill in curing persons afflicted with those noxious insects. One ounce of tin, reduced to powder, and mixed with treacle, was given the first morning, and half an ounce each of the two following mornings; the patients were then purged with the infusion of fennel and manna. He speaks highly of the efficacy of this medicine, which has certainly considerable powers in these cases, and may be given to the most delicate subjects with perfect safety. His dissertation on the sexes of plants, in which he combats the doctrine of Linnaeus, was published in the year 1773, in the first volume of the Edinburgh Physical and Literary Essays. But the work principally calculated to secure his fame with posterity, is his Lectures on the Materia Medica, which was published in the year 1779, in two volumes, 4to. by his friend and successor in the professor's chair, Dr. John Hope. Although considerable additions and improvements have been since made in this branch of science, yet this work will be always held in esteem for the number of curious and useful facts it contains. Haller Bibliotheca Botan.

ALSTON-MOOR, or ALSTONE, in Geography, a town of Cumberland, situate on a hill near the river Trye, on the borders of Northumberland. The parish is small; but on account of the lead-mines in its neighbourhood very populous. The lands are part of the forfeited estates of the earl of Derwentwater, and are held on lease, granted for a thousand years, under the governors of Greenwich hospital. The market is plentiful, and held on Saturday. The distance from London by Bernard castle is 271, and by Pershith 302 miles. N. lat. 54° 45', W. long. 2° 4'.
beautifullu tained and veined with pur pleaed red; it flowers from June to October; and was introduced into Kew gar- den, in 1753, by Meinsh. Kennedy and Lee. 2. A. pul-

ebella, with erect stem, reflex-spreading and acute corolla, pedicel leaves, and pedicles shorter than the involucre. This plant resembles the former in its structure and habit, but the leaves are narrower, and the Item terminated by an irregular involucre of larger pedicels leaves: the pedicels naked and more flored, flowers four or five rather nodding; the petals alternately less, white, red at the tip, streaked, or dotted with red at the base, filaments yellow, pistil red, and stigma trifid. This species is a native of South America.

5. A. Ligu, striped-flowered A. with erect stem, spatulate-oblong leaves, pedicels of the umbel longer than the involucre, and two-lipped corolla. The barren items are clothed with awl-shaped leaves, and terminated by spatulate-oblong leaves, placed in a kind of rofe; the florescent Item clothed with awl-shaped leaves, the pedicels few and naked; the three upper petals of the corolla larger, white, dotted at the base, and spotted at the tip with red, the three lower ones shorter and red; the filaments longer than the lower petals, rugged, the anthers twin yellow; the pistil red. This plant, which is a native of Lima, is remarkable for the largenee of its flowers, and for their fragarancy, scarcely inferior to nigromatte; it flowers in February and March, and was introduced here about 1776 by John Brown, Esq. 4. A. Saffilia, with twining stem, petiolate, lanceolate, acuminate leaves, branching umbel, pedicels longer than the involucre, bracted and fole. The leaves are nervele, petirole, the involucre many-leaved, awl-shape, and reflex, the pedicels few, elongated, fullaining one or two flowers, the outer petals red, and the inner greenish. This is a native of Lima. 5. A. multiflora, with twining stem, petiolate, lanceolate, and acuminate leaves, simple umbel, pedicels shorter than the bracts, and petals alternate and truncate. This species resembles the leaf in habit and structure; but the petals are wrinkled at the edge, and the umbel is not petiolated, the many-flowered involucre consists of broader leaves, and the pedicels are simple and naked; the three outer petals are shorter, narrower, and entire, the inner truncate or emarginate, with a point; the colour is unknown. It is a native of South America.

6. A. ovata, with twining stem, lanceolate leaves, lan- 
guiofe on the upper surface, hissed on the lower, and corolla tubular; or, according to Willdenow, with twining Item, petiolate, elliptic, acuminate leaves, above villos, ramose umbel, bracteate loose pedicels, longer than the involucre, and bell-shaped corolla. The Item, twining contrary to the sun, is slender, and three feet high, the leaves are alternate and selile, the flowers terminate in umbels, the petals approximate into a tube, ovate-oblong, the three outer feaclet, green at the tip, the three inner green, flatted towards the top, and variegated with black dots; the flaments are fixed to the germ near the base of the petals, antlers ovate and brown; germ green without, marked with thin longitudinal grooves, and terminated with thin small notches, fleshy subulate, ligulas sharp, capitate globular, an inch in diameter, fesse-cooped, fesse-notched at the edge. This species differs from the former in its woolly leaves, and tubulose flowers. It is a native of Peru.

All these are stowe-plants, and may be propagated by parting the roots in Autumn. The firt is more hardly than the third, and may be treated as a green-houde plant, but it will flower and ripen its seeds better under the glass of a hot- 
bed frame, freely admitting air: it is more ufually raised from seeds sown in the Spring in a pot of light earth, on a
gentle hot-bed, either of dung or man. Curtis Mag. Mar-
tyn's Miller.

ALTGEN, in Geography, a lake of Sweden, in the province of Halland, from which the river FALSKENBERG rises, and by which river it communicates with the sea.

ALSWAN, a town of Poland, in the duchy of Courland, four leagues west of Gdines.

ALSWENDE, a district of the prefecture of Reine-
berg, in the principality of Minden, in Westphalia, con- 
ining of five parishes, the inhabitants of which are employed in agriculture and the breeding of cattle.

ALSZA, a small place in Hungary, belonging to a tribe of Turks, between the Neper and Black Sea.

ALT, a river of England, which runs into the Irish sea, 7 miles west of Omskirk, in the county of Lancashire.

Alt, formed of altus, high, in Moffi, a term applied to the high notes in the scala. See also NIGERIUM.

ALTE-BUNZLAI, Bohemia, in Geography, a town of Bohemia, in the circle of Bunzlau, or Bolebbleau, founded by Wrathlau in 915, and improved by his son Bolebleau the Cruel in 937, but reduced by the troubles in the 11th and 16th centuries to an inconsiderable place. The collegiate church of St. Cofinus and Damian is very ancient.

ALT-CLAIFFER, a town of Germany, in the circle ofLower Saxony and duchy of Brunswick, 12 miles south-southwest of Stade.

ALT-RAINSTADT, or Old-Rainstade, a small town of parish village of Germany, in the circle of Leipjig, two leagues from Leipjig, famous for a treaty concluded in 1766 between Charles XII. of Sweden, and Augustus II. king of Poland; and for the repudiation of the Imperial pleni- 

tentency, Count Wratjillau, in 1797, on account of the religious freedom of the Protestant inhabitants of the duchy of Silesia.

ALTA, a town of Sweden, in Helsingland, on the fron-
tiers of Geftrieia.

ALTEBA, in Ancient Geography, a place of Africa, in Numidia.

ALTAI, or ALTAN mountains, in Geography, are a chain of mountains in the northern part of Asia, ranking among the most extensive on the globe, and vying in length even with the Andes of South America, which extends from about the 70th to the 140th degree of longitude from London, or about 5000 miles. The several ridges and branches of this immense chain of mountains are distinguished by different appellations, under which they will be noticed in the course of this work. The Altay mountains are called by the Chinese Altair-alin, and Chin-hall, which signifies the Gold Mount. They are divided into the Great and the Lesser Altay. The former separates the Mongolian Tartary from the empire of the Soongor and Kalmucks, and a small part of Bokharia toward the west. This range proceeds in various windings toward the north-north-west, throwing out several considerable ridges, between which are the main sources of the Yenisei, Oby, and Irtil, through Soongoria to the north-north-west, where they enter in conjunction with the Lesser Altay. The Lesser Altay separates Soongoria from the government of Kaltyjan, through which the abovementioned rivers pursue their course over a great extent of country. The great chain of the Altay mountains commences with Bokho, one of its highest points, passes over the sources of the Irtil, northward between that and the lake Teletzko-Ozer, unites beyond the Yenisei with the SYAN mountains and those of BAIKAL, and in Dauria with the Argulian or KEDHINSKOI mountains, fixing the limits between Si-

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beria and the Chinese empire from the Irifi to the Amur, and runs on, with divergent branches, to the mountains of Okhotsk, and to those of Kantschatka, and of the Kurile and Aleutian islands, terminating in the promontories and rocky shores of Cape Tschutschski, the boundary of Asia; unless we suppose the mountainous and rocky island of Kurile and Japan connected with the mountains which reach from Tibet to China. The portion of the Altay mountains that properly belongs to Russia, may be distributed into two parts; one from the Irifi to the lake Teletzkoi and the head of the river Abakan, is properly the Leffer Altay, or Khrebet Khalta, and the other, from the Abakan to the Yenifi, is called Sabinskoy Khrebet. In the former are the greatest elevations of the Kolhyvanian, and in the latter those of the Kufnitzkoj mountains; and these form the basis of all the ribs or ridges that shoot out to the north-west and to the north, which at last lose themselves towards the Icy or Frozen Ocean in extensive plains; while toward the south they still continue to soar to an uncommon height over a long and broad extent of territory. In the midst of these lofty mountains, says Dr. Pallis, and on the frontier line between the Soongorians and Mongolian deferts, Bogdo-Dola, or Bogdo-Alim, g. d. the Almighty Mount, so eminently famous among all these nations, lifts its pointed heads; which, if not one of the highest, is yet, by its craggy, steep, and irregular form, with the appearance of having been thrown up by some violent agitation of the earth, the most striking of the elevated mountains of this region. North-west from it the principal mountain as far as Altain-Kul, or Teletkoi-Ozero, is called the Golden Mountain. Eastward towards Mongolia, more to the south, runs a large mountain Chgang, and southwards a snow mountain Mussift, which connects either with the Tibetan, or with the northerly mountains in India. To the west the chief mountain throws out an arm, mostly bare of forests, and fluted, as it were, with rocks, called Allakoon, i. e. the chequered mountain, by the Tartars Ala-Tau, which joins with the Kirghizian Alginsko-Sirt. The Great Altay mountains are properly connected, as we have already observed, with the mountains of Tibet by the Mussift, or by other chains; for all the deferts between Siberia and India, and the caffren Bukharia, are merely alternate hills and plains, and very rocky. Besides, it is evident that the Altay mountains must make an uninterrupted partition between the Western Steppes and the eastern regions, because the Stepp animals, particularly the antelopes or Steppgeest, run the mountains, and even in Asia go no further than to the western range of the Altas, and are come from it northwards to the woody regions of the Oby. The snow-mountain, which appears northwards on the Siberian frontiers from the Irifi to the Bukarma and the Katunia, and quite into the angle formed by the rivers Ira and Belaia, which flow into the Tifirh, is, as it were, a branch or nook of the Great Altas, and is by some usually called the Little Altay, and darts its stupendous pinnacles above the clouds. This mountain is bold and steep, and appears, especially in the vale where the Ira unites with the Tegur, like a towering wall, behind which the mountains rise higher by irregular gradations, and at last strike up in separate points. The fame steep vale parts the Schilfoc site mountain from the Chalkstone mountain, which spreads from hence northwards between the Ira and the Loktefka quite to the Tifirh. Over the Schilfoc site mountain the snowy summits rise conically out of a granite mixed with schord and mica. The fame granite shews itself again in chalky promontories, with the schiltus lying upon it, and forms the Revnoa Sepka, as it is called, at the fame time, in the bofon of the chalky mountains, the still more elevated Sinaia Sepka. Granite appears likewise throughout in low, rocky, craggy mounts and sngle cliffs, between the rivers Ubo and Alay, where the mountain has already deep towards the plain, and likewise about the lake Kolhyvan. The rich ore-mountain of Kolhyvan places itself immediately between and about this granite-flock, and thence arises an apparent confusion in the strata through the whole of the ore-mountain.

The principal part of the Altay mountains that belongs to Russia is the range of Kolhyvan, or the proper ore-mountains of Altay; and these may be arranged into the Kolhyvon-vorobienko, the Korsolinksio, the Alaiskian, the Oubinsko, the Bukraminsko, the Teletskoi, and the Tsiariskoi mountains. The second range of the Altay mountains belonging to Russia, or the Kufnitzkoj mountains, is still almost unknown and inaccessible. Its two subdivisions are the Kufnitzkoj proper and the Krafnoyarskoj mountains, which together fill the whole large space between the Oby and the Yenifi. The summits of these mountains, between the sources of the Tom and the Yen, and on the Mafs, are covered with perpetual snow. Their inward constitution is not accurately ascertained; but various sorts of granite, porphyry, jasper, breccia, fafine chalkstone, marble with fche-flies, hornstone, flate, serpentine, mountain-crystal, chloride and cornelians are brought from hence. On the Kondoma are productive iron-mines; about the source of the Tshumith the Salshirfkoj silver-mines continue to be worked with fanguine expectations; and at Krafnoyarski several copper-mines were formerly worked, but are now abandoned. In the last-mentioned circle is also an establishment for fencing iron ore. The highest mountains to the south are about the source of the Abakan, where the famous mount Sabin, or Shabina Dabalin raises its snowy head to a stupendous height, and the Item on the borders of the brook Shantigiy.

The greater part of the Altay mountains is more bold than woody. The largest forests are in the low country about the Alay, the Oby, and the Yenifi. The species of wood are the pinus sylvestris, the birch, the alpin, the pinus picea, the pinus abies, the alder, the willow, noble larch-trees, (pinus larix) and cedars. The principal rivers of these mountains are the Irifi, and its collateral streams the Bukarma, the Ulba, and the Uba; the Oby, with its main rivers, the Alay, the Tifirh, the Tshumith, the Tom, the Katunia, the Yen, and the Abakan, which falls into the Yenifi. The upper regions of these mountains are uncommonly exuberant in waters.

The Altayan mountains contain rich gold and silver shafts, and also veins of lead, copper, and iron, impregnated with gold and silver. The most important silver mines in these mountains are those of Kolhyvan. The copper-mine is also considerable; besides which the cupriferous silver ore yields a quantity of copper, the whole amounting to about 15,000 pood a year. In 1782 there were coined here...
ALT

18,793 pound of copper. We have before mentioned the iron smelting-house of this mountain. In the Altay there are neither markets for provisions, nor any tradesmen and mechanics; and therefore the miner must provide himself with all necessaries, which he is enabled to do by means of the numerous court and church holidays, on which he is released from public labour. With this view the first object of his attention is to have a small house, with a garden and a cow-yard. When new shafts are opened, he makes a shift at first with a hovel constructed with a few stakes, and covered with sods, or he digs an habitation and a baking oven in the earth; when he has the prospect of being stationary, he erects a regular house to which he brings his cattle and his little property. Hence it often happens, that within forests apparently the most inaccessible, or in wild and dreary fuppen, whole streets and villages spring up in a few years. The miners of the Altay are generally very ingenious and industrious; and they are excellent hunters, expert horsemen, and in case of necessity, the best soldiers. Tooke’s View of Ruflia, vol. i. p. 118, &c. Vol. iii. § 10.

ALTAL, a small district in the south-west part of Corfica.

ALTAMIRA, a village of Spain in Gallicia, on the river Tamara, which gives title to an earl and grandee of Spain, five leagues west of St. Jago de Compostella.

ALTAMONT, or Altomonte, a town of Italy, in the kingdom of Naples, and province of Calabria Citra, near which are gold and silver mines, 10 miles south-west from Caffano.

ALTAMURÁ, a town of Naples, in the province of Bari, at the foot of the Apennines, six miles north-east from Gravina.

ALTANUM, in Ancient Geography, a town of Italy, in the part of Magna Græcia, called Bruttium, situate on the eastern side, south of the gulf of Seylaccen, and north of Locri.

ALTÀO, a town of Africa in Mauritanian Caesariana, according to Ptolemy.

ALTAR, Altare, Ara, a place or pile whereon to offer sacrifice to some deity.

Altars are, without doubt, as ancient as sacrifices; and consequently their origin is not much later than that of the world. Gen. c. iv. Some attribute their origin to the Egyptians; others to the Jews; others to the patriarchs before the flood. Some remove them as far back as Adam, whose altar is much spoken of by Jewish and even Christian writers. Others are contented to make the patriarch Enoch the first who consecrated a public altar. Be this as it will, the earliest altars, of which we find any express testimony, are those of Noah, (Gen. viii. 20.) and of Abraham, (Gen. xii. 7.) In the patriarchal times altars were formed of rude materials, and they were of almost inconstant construction, and temporary, appropriated to the purpose for which they were designed. The altar which Jacob set up at Bethel was merely the stone on which he reited, Gen. xx. 8. Such was also the altar of Gideon, Judges vi.; and the first altar which Moses erected by the command of God was made of earth. Exod. xx. 24.

The principal altars of the Jews were the altar of incense, the altar of burnt-offerings, and the altar or table of shew-bread.

The altar of incense described, Exodus xxx. 1-10., was made of shittim wood, and overlaid with gold. It was one cubit square, and two cubits high, with an ornament of gold like a carved moulding round the top of it. It was carried by two bars of the same wood, covered with gold, and passing through four golden rings. Its use was for burning incense every morning and evening; and it was also to be sprinkled with the blood of the sacrifices that were offered for the sins of ignorance, committed either by particular persons, or by the people in general. See Miscellany. Plate I.

The altar of burnt-offerings, described Exodus xxvii. and xxviii., was placed towards the east end of the court, fronting the entrance of the tabernacle, and at such a convenient distance from it, that the smoke of the fire which was constantly burning on the altar might not fully the furniture within the tabernacle. Its dimensions were five cubits, or about 9 feet square, and three cubits, or about five and a half feet high. It was made of shittim wood plated over with brass, and it had four brass rings, through which were put two bars, by which it was carried on the shoulders of the priests. It had four horns at the four corners; but critics have been divided as to the form and use of these appendages to this altar as well as to the former. Some have supposed that they were mere ornaments resembling the rays of the sun; the term translated horn signifies also a ray of light. Others imagine that the corners of the altars were in shape like the horns of an ox or ram, &c., that they served for the altar of incense to move and carry it about with the greater ease and readiness; and with respect to this larger altar, for tying the victims to them, according to the allusion of the Psalmist, Psalm xxviii. 27. Michaelis underfoot by the horns merely the corners, but this interpretation is inapplicable with the context. They were evidently projections from the corners; the text, however, does not inform us whether they were upright, oblique or curved. Spencer, Le Clerc, Witsius, and others, think that they were really horn-shaped, like those of the ara pacis of the Romans. Josephus says so expressly of the altars in his time: υποβάθριας ἀγαθήν ἐνακοφίη. De Bell. Jud. lib. iv. c. 5. n. 6. p. 324. ed. Haverc. The fire of this altar was kept upon a square grate, suspended by rings at the corners, and possibly by chains in the cavity of the altar. The dimensions of this grate might be about five feet square; and six inches being allowed for the thickness of the sides, there would be a space of about 1 foot between the grate and the altar on every side, which would be sufficient to prevent the wooden sides from being damaged by the fire. The fire on this altar was considered as sacred, having first descended upon it from heaven. Lev. ix. 44. It was therefore to be kept constantly burning, and never to go out. Lev. vi. 13. From hence probably the Chaldeans and Persians borrowed their notion of the sacred fire, which they preferred with religious care and attention; a custom which afterwards passed from them to the Greeks and Romans. This altar was beaten down and destroyed by the Babylonians at the burning of the temple, but it was replaced on the return of the Jews from captivity. Ezra iii. 3. It was now a large pile built of unhewn stone, 32 cubits (i. e. 48 feet) square at the bottom, and gradually decreasing to the top or hearth, which was a square of 32 cubits, and one cubit high, made of solid bruts, and hence called the brazen altar; for it is not to be imagined that it was all made of solid bruts. The ascent up to the altar was by a gentle rising on the south side, called the Kibbeh, 32 cubits in length, and 16 in breadth, and landed upon the upper benches in next the hearth or the top of the altar. Prideaux’s Cont. vol. i. p. 199. See Miscellany. Plate I.

The altar or table of shew-bread, described, Exod. xxv. 23-30., was made of the same sort of wood with the altar of incense, and, like that, overlaid and ornamented with gold. Its dimensions were two cubits long, one broad, and one and a half high. It had a golden border, crown, or rim round it;
altars" to a kind of tables occasionally raised in the country or field, on which sacrifices were offered to God. Thus we often read, that in such and such a place an altar was built to the Lord.

The altars of the Heathens were at first made of turf; they were afterwards made of stone, marble, wood, and even of horn, as that of Apollo in Delos. Before temples were in use altars were erected in groves, in the highways, and on the tops of mountains; and it was customary to engrave upon them the name or attribute of the deity to whom they were consecrated. Altars were also of different kinds with regard to their qualities, the uses to which they were applied, and the objects to which they were appropriated. Accordingly we read of altars sacred to gods, heroes, virtues, vices, disasters, &c. and of inner and outer, stationary and portable, public and private altars. They differed also in their figure, which was round, square, or triangular. All of them were turned towards the east, and generally adorned with sculpture, bauco-relievo, and inscriptions, expressing the gods to whom they were appropriated, or representing their distinguishing symbols. For a specimen of pagan altars, see Miscellany. Plate 1. N° 1, represents an altar dedicated to Neptune, a Trident, and two dolphins, the attributes of this deity being exhibited on its sides. N° 2, is a square altar, dedicated to Neptune, as the inscription informs us. N° 3, exhibits a Bacchus with a thyrsus in his hand, which shews that the altar was erected to Bacchus; with two other sides it appeared triangular. Each side of N° 4, which was triangular, exhibited a genius, one of whom is seen carrying an ear upon his neck, which shews that it belonged to Neptune. N° 5, with the inscription "Ara Neptuni," is of a round figure; the god is represented wholly naked, preserving the pallium on his shoulder, and holding in his left hand a cithara, and in his right a dolphin.

Altars differed also in their height as well as in their figure and the materials of which they were formed. According to Servius, in Virg. Eccl. v. 66. "En ii. 515." those altars let apart for the honour of the celestial gods, and gods of the higher class, were placed on some pretty tall pile of building, as the altar of Olympian Jupiter, which was nearly 22 feet high; and for that reason were called altares, from the word alta and ara, a high elevated altar. Those appointed for the terrestrial gods were laid on the surface of the earth, and called ara—and, on the contrary, they dug into the earth, and opened a pit for those of the infernal gods, which they called subna and xanxus, feroculic. But this distinction is not everywhere observed; the best authors frequently use ara as a general word, under which are included the altars of the celestial and infernal, as well as those of the terrestrial gods. Witweus Virgil, Eccl. v.

"—En quattor aras."

Where ara plainly includes altares; for whatever we make of Daphnis, Phoebus was certainly a celestial god. See Cicero, pro Quint. "Aras delubraceae Hectates in Grecia vidimus." In the great temples of ancient Rome there were commonly three altars. The first was placed in the sanctuary at the foot of the statue of the divinity, upon which incense was burned, and libations offered; the second was before the gate of the temple, and upon it they sacrificed the victims; and the third was a portable altar, upon which were placed the offering and the sacred vessels.

The Greeks also distinguished two sorts of altars; that whereof they sacrificed to the gods, was called xanxus, and was a real altar different from the other, whereon they sacrificed to the heroes, which was smaller, and called xanxus. Pollux makes this distinction of altar in his Onomasticon: he adds, however, that some poets used the word xanxus, for the altar wherein sacrifice was offered to the gods. The ancient version does sometimes also use the word xanxus, for a sort of little low altar, which may be expressed in Latin by epulacium; being a hearth rather than an altar. The ympius, instead of altars, had xanxus, caves, in which adoration was paid to them.

Altars and temples afforded an asylum or place of refuge for malefactors, and criminals of all descriptions among the Jews, Greeks, and Romans; chiefly to slaves, from the cruelty of their masters, to insolvent debtors and criminals, where it was reckoned impious to touch them, and whence it was unlawful to drag them; but they sometimes kindled fire round the place, or flung up the temple and unmolested it. Hence "ara" is put for "refugium." Ovid, Trist. iv. 5. 2. The altars of the ancient Heathens, as well as those of the gods, were adorned with horns, to which the victims were fastened, and criminals who fled for refuge to the altar had hold of the horns. The ancients also, on solemn occasions, as in making alliances, and confirming treaties of peace, swore upon and by them. For classical authorities to these several facts, see Adam's Rom. Ant. p. 327. Harwood's Grecian Ant. p. 150, &c.

The altar, bearing an inscription, "To the unknown God," found by the Apostle Paul, at Athens, and mentioned, Acts xvii. 23, has occasioned some difficulty to biblical critics. Jerome supposes, that the inscription on this altar was not, as St. Paul quotes it, "To the unknown God," but, "To the gods of Asia, and Europe and Africa, unknown and strange gods," and that the apostle has not quoted the inscription exactly, but dexterously applied it to his own purpose. Theophylact and Oecumenius are also of opinion that the inscription was "To gods," &c. in the plural number. On the other hand, Chrysostom and Hilire of Peliumus affect, that the inscription was in the singular number, as St. Paul quotes it. Learned moderns, as well as ancient Christian writers, have entertained different opinions on this subject. Le Clerc says, that though the inscription was in the plural number, St. Paul was in the right to allude it in the singular number. The occasion on which this altar was erected, is thus related by Dio- neces Laertius (in Epigen. lib. i. segm. 110. p. 79, 71.) About 600 years before Christ, the fame of Epimenides was very great among all the Greeks, and he was supposed to be in great favour with the gods. The Athenians being afflicted with a pestilence, they were directed by the Pythian oracle to get their city purified by expiation. They therefore sent Nicias, son of Niceratus, in a ship to Crete, inviting Epimenides to come to them. He came accordingly in the 46th Olympiad, purified their city, and delivered them from the pestilence in this manner. Taking several sheep, some black, others white, he had them up to the aeropagus, and then let them go where they would; and gave orders to those who followed them, wherever any one of them should lie down, to sacrifice it to the god to whom it belonged, and to the plague ceased. Hence it comes to pass, that to this present time may be found in the boroughs of the Athenians anonymous altars, a memorial of the expiation then made." By the God to whom it belonged some have understood, "the god next the place;" others have translated the passage, "to the proper god to whom that office belonged;" to him, whoever he was, who should remove the infected pestilence." Dr. Doddridge, (in loc.)
The form is not borrowed either from that of the Heathen altars, or even from that of the Jews in the temple: but as the eucharist was instituted by Jesus Christ, at supper, and upon a table, the modern altar is made in form of a table; whence it is more usual, and even more significantly denominated Communion Table.

In effect the denomination altar is founded on this supposition, that the eucharist is a proper sacrifice; which, though the standing doctrine of the church of Rome, is utterly denied by most of the reformed. Accordingly, Bishop Ridley, in the reign of Edw. V. A.D. 1550, illustr ated injunctions for taking down all altars, and requiring the church-wardens of every parish to provide a table decently covered, and to place it in such a part of the church as it should be most meet, so that the ministers and communicants should be separated from the rest of the people. The reasons alleged for this alteration were these: because our Saviour instituted the Sacrament at a table, and not at an altar: because Christ is not to be sacrificed over again, but his body and blood to be spiritually eaten and drank at the holy supper, for which a table is more proper than an altar: because the Holy Ghost, speaking of the Lord's Supper, calls it the Lord's Table; 1 Cor. vi. 25: but no where an "altar." The canons of the council of Nice, as well as the fathers St. Chrysostom and St. Augus
tine, call it the Lord's Table; and though they sometimes call it an altar, it is to be understood figuratively. An altar has relation to a sacrifice, so that if we retain the one we must admit the other, which would give great countenance to mas-s-priests: there are many passages in ancient writers that show that communion tables were of wood, that they were made like tables, and that those who fled into churches for sanctuary did hide themselves under them: and the most learned foreign divines have declared against them, as Bucer, Ockolampadius, Zuinglius, Bullinger, Calvin, P. Martyr, Joannes Alcius, Hedo, Capito, &c. and have removed them out of their several churches, and the Lutheran churches only retain them. Ridley, Cranmer, Latimer, and the rest of the English reformers were unanimously of opinion, that the retaining of altars would serve only to nourish in the minds of people the superstitious opinions of a propagatory mas, and would minifter an occasion of offence and division among the godly. Some of the bishops, however, refused to comply with the order of council, and suffered themselves to be deprived of their bishoppies for contumacy, October 1551. The practice of confederating altars with their furniture was introduced and vindicated by Archbishop Laud in the reign of Charles I., but objected to by Pembroke, as having no higher original than the Roman maff, and pontifical, in which there are particular chapters and set forms of prayer for this purpose; and it was alleged that the practice, as well as the arguments on which it was founded, have no foundation in reason or Scripture, and are contrary to the usage of the church of England, and the opinion of our first reformers. To the antiquity of altars it was replied, that though the name is often mentioned in Scripture, yet it is never applied to the Lord's Table; but altars and pries are put in opposition to the Lord's Table, and ministers of the New Testament, 1 Cor. ix. 13, 14. It was added, that it cannot be pretended by any law or canon of the church of England, that it is called an altar more than once, St. 1 Edw. VI. c. i, which statute was repealed within three years, and another made, in which the word altar is changed into table. It was said, that from the unanimous suffrages of most of the fathers that lived within 300 years after Christ, and of our most learned reformers, it appears, that for above
above 250 years after Christ there were no altars in churches, but only tables; and that they were first introduced by Pope Sixtus II., and that the canons of the popish council of Aix, in 1593, are the only ones that can be produced for razing them in. The practice of bowing to the altar, charged on the archbishop as another innovation, was objected to as popish, superstitious, and idolatrous, being prescribed only by popish canons, and introduced to support the doctrine of transubstantiation, and having no foundation in antiquity, nor approved by any Protestant writers. Burnet's Hist. Reform. vol. ii. p. 150—155. Strype's Annals, vol. i. p. 160—162. Neal's Hist. Puritans, vol. i. p. 44, &c. vol. ii. p. 156—147, 480.

In the primitive church the altars were only of wood, as being frequently to be removed from place to place. But the council of Paris, in 509, decreed, that no altar should be built but of stone.

At first there was but one altar in each church; but the number soon increased; and from the writings of Gregory the Great, who lived in the sixth century, we learn, that there were sometimes in the same church twelve or thirteen. In the cathedral of Magdeburg there are no less than 49 altars.

The altar is sometimes built upon a single column, as in the subterraneous chapels of St. Cecilia, at Rome, &c. and sometimes by four columns, as the altar of St. Sebastian of Crypta Arenaria; but the customary form is, to be a mafive of stone-work, forming the altar-table.

These altars bear a resemblance to tombs; to this purpose, we read in church-hitory, that the primitive Christians chiefly held their meetings at the tombs of the martyrs, and celebrated the mysteries of religion upon them. For which reason it is a standing rule to this day in the church of Rome, never to build an altar without inclosing the relics of some saint in it.

In lieu of proper altars the Greeks in process of time made use of Antimenesia.

Altar of Prophète, is a name given by the modern Greeks to a smaller, preparatory kind of altar, wherein they observe the bread, before it be carried to the large altar where the solemn liturgy is performed.

F. Goar maintains, that the table of prophète was anciently in the faciarity or vestry; which he makes appear from some Greek copies, where faciarity is made use of in lieu of prophète.

Altar is also used in Church History, for the oblations or contingent incomes of the church.

In ancient days they distinguished between the church and the altar. The tithes, and other settled revenues, were called the church, ecclesia; and the other incidental incomes, the altar.

Altar, in Astronomy. See Ara.

Altar-thane, in our Ancient Law Books, denotes a priest, or parson of a parish. In this sense the word is synonymous with church-thane.

Altarage, includes not only the offerings made upon the altar, but also the profit that arises to the priest on account of the altar.

Altarist, altarista, properly denotes the vicar of a church who serves the altar, and to whom the altarage or produce of the altar is assigned for his maintenance. Du Cange.

The altarist is sometimes also called altararius, sometimes altar priest.

Altarist is also used for chaplain.

Altasrif, in Literary History, the title of a medi-

nal book written in Arabic, describing the method of practice in use among the Arabs.

It was written by Alakbaravus, an author in the fifteenth century, and translated into Latin by P. Ricinus in 1519. Concerning the history and contents of the Alt Tafsir, see Friedl. Hist. Phys. p. ii. p. 124, foq.

Altavela, in Lectionary, the name of a flat cartilaginous fish, which, in the Libyan system, by Glimel, is a variety of the Rajah Palmaoe, with its wings, as they are called, that is, its thin and flat sides, broad and obtuse towards their lower part. The fishermen, from the resemblance these flat sides have to wings, have an opinion that this fish can fly. The tail is very short, scarce being half the length of the body. Its flesh is solid and well tasted, and it always sells well in the markets. It is caught in the Mediterranean, and is frequently brought to market at Rome.

Altavella, in Geography, a town of Italy, in the kingdom of Naples, and province of Principato Ultra, seven miles south of Benevento.

Altavilla, a town of Naples, in the province of Principato Citra, eighteen miles south-east of Salerno.

Al-Tayet, a town of Hejaz, a district of Arabia Felix, situated above 60 miles east of Mecca, behind Mount Gazwan, where the air is very wholesome, but the cold more intense than in any other part of the district. Its territory abounds in fountains, and produces excellent raiins. The town is small, but surrounded with a wall.

Altchirck, or Altkirch, a town of France, in the department of the Upper Rhine, situated on an eminence near the river Ill, five leagues west of Bale, and nine south of Colmar. N. lat. 47° 8'. E. long. 7° 8'.

Altdorf, or Altdorf, a large and handsome town of Swiflerland, and capital of the canton of Uri, situated in the valley of the Reuf, and almost surrounded by steep mountains covered with trees, which throw a gloomy shade over the town. It has two convents, four churches, and several chapels, one of which was erected on the spot where was born William Tell, who is said to have shot the apple from his son's head in this town. Geffler, a tyrannical governor, placed over the free inhabitants of Uri by Albert I., among other oppressive and irritating measures, set a hat on a pole at Altdorf, and required the same respect to be paid to it as to his own person; but William Tell refusing to submit to this ignominious requisition, provoked the indignation of the governor, and was obliged to secure himself by flight. This circumstance, as some have reported, laid the foundation of the liberties of Swiflerland, and occasioned an union of Uri, Schwitz, and Unterwalden, in 1538 for throwing off the Austrian yoke; and in 1315 these three cantons formed a perpetual alliance. This town is 20 miles south-west of Lucerne, and 33 south of Zurich. N. lat. 46° 35'. E. long. 8° 24'.

Alte & bafle, in Middle Age Writers, denotes vassalt, or a thing done with the highest power. Du Cange.

Altea, in Geography, a sea-port town of Spain, in the Mediterranean, on the south-east coast of Valencia, eight leagues north-east of Alicante, and 17 south of Valencia. It trades in wine, flax, silk, and honey. It was taken in 1705, in favour of the Archduke Charles, but lost after the battle of Almanza. N. lat. 38° 40'. W. long. 0° 16'.

Alten, or Altenbotten, a gulf of Norway, on the coast of Finnmark, in the government of Wardhus.

Altena, or Altona, a sea-port town of Germany, in Holstein, on the Elbe, in a situation favourable for commerce. It was burned by the Swedes in 1712, and afterwards
Great final for the or, town has a Such town is small, the east suburban. It can be built. The house is for finding silver.

ALTENAU, a small mining-town of Germany, in the principality of Grubenhagen, situated in the Harz forest, near the source of the Oker, and surrounded by rugged mountains and rocks, eight miles south of Goslar. In this town there is a house for finding silver.

ALTENBECKEN, or ALTENBEKEN, a town of Germany, in the circle of Hildesheim, and bishops of Paderborn, three miles east of Lippspringe.

ALTENBERG, a town of Germany, in the circle of Erzgebirge, and prefecture of Altenberg. It is a mining-town, and the tin supplied by it is reckoned the bext next to that of the English and Bohemian. The tin mine was discovered in 1458. Great quantities of lard are wove here. It has repeatedly suffered much from fire.

ALTENBURG, O-Var, a small well-built town of Hungary, with a castle standing on a small branch of the Danube and Leitha, and frequented by deep and wide moats. It has an annual fair, which lasts a week. It is 17 miles south of Pressburg, and 49 south-east of Vienna. North lat. 47° 56'. East long: 23° 15'.

ALTENBURG, a town of Germany, in the duchy of Silesia, eight miles south-west of Weitbuh.

ALTENBURG, Oldenburg, a town of Germany, in the duchy of Holstein, on a river which runs into the Baltic, about three leagues to the east, 10 leagues north-east of Hamburg. North lat. 54° 18'. East long. 11° 4'.

ALTENBURG, a town of Germany, in the circle of Upper Saxony, anciently called Pflunie, the capital of a principality of the name. It is large and populous, and has a castle seated on a rock, which was the residence of the former electors and dukes. It was anciently an imperial city, and the capital of the county of Pfeiffen. In this town are a place of education for young ladies of decayed families, a house belonging to the Teutonic order, a gymnasium illustris founded in 1703, with a good museum and library, an orphanage house, and a house of correction. It is 20 miles south of Leipzig, and 52 west of Dresden. North lat. 50° 50'. East long. 12° 52'. The principality of Altenburg is a part of the ancient Osterlands; and the soil is very fertile in corn, and affords good pasture. It has large breeds of horses, and plenty of wood; and its mines yield copper and cobalt, and other minerals. The stones of this principality are divided into those of the Altenburg, Saalfeld and Eisenberg circles, and confit of the nobility and towns of these three districts. Their provincial meetings are held at Altenburg. The religion of the country is Lutheran.

ALTENBURG, a town in the circle of the Upper Rhine, and bishopric of Spire, two miles north-west of Bruchal, and nine south-west of Spire.

ALTENBURG, a town in the circle of the Upper Rhine, two miles north-west of Wetzlar, and two north-east of Braunfels.

ALTENBURG, a town in the county of Tyrol, nine miles north-east of Ghurns.

ALTENBURG, a small village of Switzerland above Bruck, in the canton of Bern, situated on the river Arar, and known by its Roman antiquities, and the ruins of the castle of Vindolifsen.

ALTENBURG, a town in the archduchy of Austria, two miles south-west of Horn.
can only be changed by first changing the action of the fluids, and this opinion is at present gaining ground.

In the third clas may be placed such as act on the nervous system, often called Aodynes, Emollients, &c.

If we employ the term alterative in a more extended sense, to denote any means by which an alteration for the better can be produced, we should be obliged to refer all diet and medicines to this head; and even with the limitation, of "without a sensible operation," we find it no easy task to decide in all cases what remedies should be included under alteratives.

We think a warm or cold climate may act as an alterant; so may issues or fetons; others go so far as to say that evacuants are the best alteratives; others, on the contrary, ascribe even the salutary effects of evacuants to their alterative nature. This has been alluded to mercury in the cure of the venereal disease; and of it and ipecacuanha in the cure of dyscertories; but it must be observed that these articles succeed best when administered in alterant doses.

The arrangement of the Materie Medica, as well as the modus operandi of remedies, will furnish much diversity of opinion for several centuries: it is, fortunately, a ground of dispute that never has, nor ever will materially injure the practice of either medicine or surgery.

ALTERATA, in Mufier, a term used by the French as well as the Italians, for temperament, in speaking of intervals, and likewise of extreme confinement and diarrhoea: as an extreme sharp 6th, a redundant 5th, an extreme flat 7th, &c.

ALTERATE. See Sesqui alterate.

ALTERATION, Alteratio, in Physic, the act of changing the circumstances and manner of a thing: its general nature and appearance remaining the same.—Or, it is an accidental, and partial change in a body: without proceeding so far as to make the subject quite unknown, or to take a new denomination thereupon. Or, it may be defined, the acquisition or loss of such qualities as are not essential to the form of the body. Thus a piece of iron, which before was cold, is said to be altered, when it is made hot; since it may still be perceived to be iron, is called by that name, and has all the properties thereof. By this, alteration is distinguished from generation and corruption; those terms expressing an acquisition or loss of the essential qualities of a thing. The modern philosophers, after the ancient chemists and corporeans, hold all alteration to be effected by means of local motion. According to them, it always consists either of the emission, accession, union, separation, or transposition of the component particles. Aristotle makes a peculiar kind of motion, which he calls the motion of alteration.

Alteration is used, in Medicines, to denote a change in the state and qualities of an animal body, in respect of temperature or constitution, health or sicknes.

In this sense, alteration includes both evacuation and excitation.

Alteration is more strictly taken for a change in the quality of the body, contrariwise distinguished from evacuation and opposition.

In which sense, alteration is the effect of medicines called alterants.

Alteration is chiefly applied in respect of the fluids or humours of the body. When applied to the solids, it is chiefly to affect the humours, or the motions of them.

Alteration is sometimes also applied in respect of the vital motions of the body.

Thus species are applied to alter and rectify convulsive and other disorderly motions. The alteration of the humours is either extrinsic, or intrinsic. The former is a change produced in the sensible appearances, as colour, thicknes, and the like: and the latter is a change in the primitive crafts, or constitution of a fluid.

Alteration in a sense still more strict, denotes that conversion which the food undergoes, to render it nourishment. In this sense alteration both includes the digestion performed in the stomack, and the assimilation in the habit of the body.

It is disputed among physiologists what the alteration is which the food undergoes.—Some reduce it to a mere comminution or trituration.—Others affect a total transubstantiation. See Digestion.

Alteration of quantities, among Algebraists, denotes what we otherwise call variation, or permutation.

ALTERATIVE, in Medicine, the same with Alterant.

ALTERATION, a debate or contex between two friends, or acquaintance. The word comes from alterari, which anciently signified to converse, or hold discourse together. Thus, we say, they never come to an open quarrel; but there is continually some little alteration or other.

ALTER DO CHAO, in Geography, a small town of Portugal, in the province of Alentejo, 12 miles west of Pontealegre, and 84 east-north-east of Lisbon. North lat. 39° 8'. West long. 6° 38'.

ALTERE, a town of Flanders four leagues west of Ghent.

ALTERIO, a town of Naples, in the province of Calabria. Citra, 17 miles east-north-east of Copenza.

ALTERN, a town and castle of Germany, in the circle of Upper Saxony, in the county of Mansfeld.

Altern, blaze, a term in Trigonometry, contrariwise distinguished from true blaze, thus,—In an oblique triangle, the true base is either the sum of the sides; in which case, the difference of the sides is called the alterna base; or the true base is the difference of the sides; in which case, the sum of the sides is called the alterna base.

ALTERNANTHERA, in Botany, a genus of the triandra monogynia clas and order; the charactere of which are, that the calyx has five leaves; no corolla; six filaments, alternately barren; the stigma bilocular; and the seeds solitary. There is one species, viz. A. repens. Forss. Fl. Æg. Arab. p. 28.

ALTERNATE, or Alternative, is underflow of several things which succeed, or are dispowed after each other by turns.

We say, an alternate, or alternative office, or trust, which is that discharged by turns; so, two general officers, who command each his day, are said to have the command alternately.

In Botany, the term alternate is applied to branches, leaves and flowers, when, instead of being opposite, they spring out regularly one above another: such are the leaves of borage, or checkered daffodil. See Leaf.

Alternate, in Arithmetic. See Alligation.

Alternate angles, in Geometry, are the internal angles made by a line cutting two parallels, and lying on the opposite side of the cutting line; the one below the first parallel, and the other above the second.

Thus x and y, and z and w (Plate I. fig. 1. Geometry.) are alternate angles, and these angles are equal to another.

There are also two external angles, alternately opposite to the internal ones. See Parallel.

Alternate ratio or proportion, is that which the antecedents and consequents bear respectively to each other in any proportion, which has the quantities of the same kind.

Thus, if A : B :: C : D; then, alternately, A : C :: B : D.

Alternate, in Heraldry, is used in respect of the situations of the quarters.

Thus in quarterly parted, the first and fourth quarters are
are alternate; and are usually of the same nature. And the like holds of the second and third.

**ALTERNATION**, in its primary sense, denotes a succession by turns.

**ALTERNATION** is more particularly used among Civilists, for disjunctive, as in saying this or that.

**ALTERNATIONS**, in Aristobulus, a term sometimes used to express the divers changes, or alterations of order, in any number of things proposed. This is also called permutation, &c. and is easily found by a continual multiplication of all the numbers, beginning at unity.

If there be two quantities a and b, they admit only of 1 x 2, or 2 changes, as a, b. If a third quantity c be added, this will admit of 3 changes with each of the two former; that is, it may be first, second or third in each of them; and in this case the number of changes will be 1 x 2 x 3 = 6. A fourth quantity will admit of 4 changes with each of the preceding quantities; that is, it may be first, second, third or fourth, and the whole number will be 1 x 2 x 3 x 4 = 24. If the number be n, multiply the series of natural numbers 1, 2, 3, 4, 5, 6, continually one into another; and the last product will be the number of alternations required.

Thus, if it be required to know how many changes or alternations can be rung on six bells, multiply the numbers 1, 2, 3, 4, 5, 6, continually one into another; and the last product gives the number of changes. See Changes and Combination.

**ALTERNATIVE** is particularly used for the choice of two things proposed. In this sense we say, to take the alternative of two propositions.

**ALTERNA** in Ancient Geography, a town of Spain, belonging to the Carpentani.

**ALTERS**, of Altars, in Nautical Geography, are a lofty shelf, westward of Languard Fort, about a cable’s length and a half, on which there are no more than five or six feet of water at low water, so that ships should keep near the fort till they have passed it, and then edge off a point or two to the west, till they come athwart of the north point of Harwich. Malham’s Naval Gazetteer.

**ALTERS**, in Ancient Geography, a town of Peloponnesus, situate on the Caldasia, which fell into the river Alpheus.

**ALTESSAN**, in Geography, a town of Italy, in the principality of Piedmont, three miles north of Turin.

**ALTEZEY, or ALTZEHM**, a town and castle of Germany, in the Lower Palatinate, capital of a territory of the same name, situate on a small brook which runs into the Salz, 15 miles south-west of Mentz, and 14 north-west of Worms. North lat. 49° 40’. East long. 8° 12’.

**ALTHA**, in Ancient Geography, a town of Babylonia, upon the Tigris, and in dependence upon Apamea, according to Ptolemy.

**ALTHA, or AILAT** of Dioscorides, from Αἰλάτ; a remedy, or also to heal, or as Dioscorides says to Αἰλάτσι, from its many excellent qualities, in Botany, a genus of the monadelphus papyrifera class, and order, or the natural order of cimifugae, and of the genus of Ajugoia; its characters are, that the calyx is a double perianthium, outer smaller, one-leaved, unequally novem-fid or nine-cleft, (6—12) divided very narrow, inner semiquinquefolia, divisions broader and narrower; the corolla is five-petalled, united at the base, obcordate, premenone, and flat; the flamma have many filaments inserted into the corolla, anthers subuniform: the fijstrillum has an orbicular germ, style cylindrical and short, stigma many (20), fleshy, of the length of the style; the pericarpium confluent of arils not jointed, forming a flat ring about a conical receptacle; they are deciduous and open on the inside; the seed is one, flat-kidney-shaped in each aril.

There are six species, viz. 1. A. officinalis, common marsh mallow, with leaves simple, downy, (debquequenolate, Smith,) or with leaves undulate, angular and ciliate; (Weit) the root stiffer than in Marsh-buck-wheat, the stalk erect, almost three feet high, simple, cylindrical, hands like a twig, folioke; the leaves alternate, petiolate, cordate, acute, subquincunx-blobed, and covered with the powdery axillary, downy, many-flowered, taller than the petals; the external calyx often two-leaved, the inner five-cleft; the corolla and stamens are purple flowered; the styles are numerous; the capsules comprise the whole herb very finely pubescent or clothed with a soft felt wool or velvet, with dilated interseptal hairs. It is perennial and flowers from July to September. It grows particularly in fields marshy, and on the banks of rivers and ditches in Cambridgeshire, Norfolk, and Suffolk, or the forests of Cornwall, in Holland, France, Italy, Siberia, &c. There is a variety of this, with the leaves rounder and not ending in a point, called by Ray A. vulgari foliis, folio rotunda brevi, and found in the Isle of Ely; it varies also with bicellate leaves. 2. A. cambrica, henney-leaved marsh-mallow, with the lower leaves peltate, (dilatata, Gmelin) upper digitate, (chato, the middle lamina the longest, Gmelin.) This has a woody stem, four or five feet high, which puts out many side branches; the leaves are alternate; the flowers axillary, less than those of the former species, but of a deeper red colour, and the calyces much larger. This fuchia flowers the first year, except in a warm summer. It grows naturally in Hungary, Istria, Austria, Carniola, Germany, Swifferland, and France, &c by the sides of wood, and was cultivated here by Gerard, in 1597. 3. A. bisbvtis, hairy marshmallow, with leaves tripartite, hairy-labiate; leaf above and peduncles solitary and one-flowered. This is a low plant, its branches trailing on the ground, the flowers axillary, smaller than those of the common sort, and have purplish bottoms, the calyxes are woody, and seldom last more than two years; the outer calyx is eight-leaved, the inner as long as the corolla, and acuminate; the corolla crenulate. This species grows wild in Spain and Portugal, Italy, Austria, Carniola, Germany, Switzerland, and France, and was cultivated in Kew gardens in 1683, by Mr. J. Sutherland. 4. A. Ludvigii, Ludvig’s marsh-mallow, albus of Ray’s hill, with leaves lobed, naked on both sides, and peduncles solid and one-flowered. This resembles albus alba; the peduncles are axillary from two to five, the outer calyx eight-leaved, and leaflets lanceolate; the inner shorter, quinquedactyl, very rough, with white villous hairs. 5. A. Narbonensis, Narbonne-marshmallow, with leaves tomentose on both sides; the lower five-lobed, the upper three-lobed, peduncles solitary, one-flowered. The root is perennial, stems are annual, from four to fix feet in height, round, and of the thickness of a finger, hoary with whitish villous hairs; stipules subulate, acute and ciliate; leaves alternate, petiolate, ferrate, bracts subulate and small; the segments of the outer perianthium are six or seven, deeply cut, lanceolate, and acute; corolla purplish-coloured, twice as long as the calyx; anthers dark-purple; stigmas white; and styles smooth; first discovered by Abbe Poiret near Narbonne, found also in Spain, flowers in August and September, and introduced into Kew garden, in 1781, by M. Thouin. 6. A. corymbifera, with leaves simple, cordate or angular, and smooth, peduncles and calyces hairy, and flowers in corymb; a native of Jamaica. 7. A. eueu, A. pavonia spicata of Cavay, and Gmelin, with leaves simple, cordate, ovate, ferrate, scabrous on the upper surface, and sacculus terminating and erect. The stems are thick, flat, five feet high, with many branches.

5 G 2

leaves
leaves alternate on long petioles; stipules lanceolate and acuminate; outer calyx deeply eight-lobed, inner somewhat tubulose, with five notches; corolla yellow, double the length of the calyx; the petals oblong, almost entire, marked with deeper-coloured streaks; the fruit composed of five bivalve capsules; a native of Jamaica. Instead of this species Gmelin infers A. grandiflora, with cordate, angulated, tomentose, patulous leaves, and subuliform auricles. Martyn. Withering. Smith. Gmelin's Lin. 

Culture. The first species may be propagated either by seeds, sown in the spring, or by parting the roots in autumn, which is the best season for the purpose. It will thrive in any soil or situation, but grows larger in moist places than on dry land; the plants, whose roots spread wide, should not be nearer than two feet. The second species is propagated by seeds sown in the spring, in a dry soil and sheltered situation; this plant seldom continues longer than two years in England, but as the seeds ripen here, the plants may be had in plenty. If the seeds of the third species be sown in April, the plants will flower in July, and seeds ripen in September; they should be sown where they are to remain.

ALTHEA, in the Materia Medica. The Althea officinalis seems to have been known to the ancients, called by Dioscorides Althea or Hibiscus, by Galen Euban, and by Pliny Hibicium. It is probably the Hibiscus of Virgil, Ecl. x. v. 30, and v. 71.

"Hædorumque gregem viridi compellere hibisco."

It has been much used by medical practitioners in every country where medicine has been regularly cultivated. All its parts abound with a glutinous juice, with a peculiar taste. The dry roots, boiled in water, give out half their weight of gummy matter, which is thought to be nearly allied to gum arabic, tragacanth, starch, &c. and dissolves in water, and some other resinous substances more readily than gum; and on evaporating the aqueous fluid, forms a yellowish mucilage. The leaves afford a peculiar one-fourth of their weight, and the flowers and seeds half less. The mucilaginous matter is the medicinal part of the plant, and it is commonly employed for its emollient and demulcent qualities. It is recommended for obsturating and incafillating acrimonious thin fluids, in tickling coughs from defluxions on the lungs and chest, hoarseness, coughs of the throat and larynx, difficulty and heat of urines, the dysentery, colic, and gonorrhoea; and for lubricating and relaxing the passages in nephritic and calculus complaints. It has been given in powder, from a scruple to a dram or two, either by itself, or in conjunction with other substances of a similar nature; it is seldom administered in this form: but it is taken to better advantage in that of an infusion or decoction. Dr. Cullen observes, (Med. vol. ii. p. 411.) that demulcents of this kind often have no effect as such in the mists of blood, or in passing by various excretions. The Althea has been often applied in various external affections. The root boiled in honey and chewed by infants has mitigated difficult diarrhoea; and milk, in which this root, figs and a small quantity of sugar have been boiled, has relieved the gums. The decoction is said to be useful in opthalmia; and a gargarium made of the decoction of this root and figs has been serviceable in sore throats. The root, cut and boiled in water or milk, has formed a convenient and useful emplast for softening and opening tumors; and it has been often added to glycerites. The root was formerly used as an ingredient in several compounds of the pharmacopoeias; but it is now directed only in the form of a syrup. This is prepared by boiling a pound of the fresh roots bruised in a gallon of distilled water to one half, and pouring out the liquor when cold; and when it has settled for 24 hours, so that the feculent soles may settle, the liquor is poured off, and four pounds of double-refined sugar being added to it, the liquor is boiled down to six pounds weight. This syrup is employed occasionally in some disorders of the breast, and for soothing mollient decretions in nephritic cases. Lewis. Murray. Woodville. 

ALTHEA. See Hennemann, Hibiscus, Lavatera, Malva, Melochia, Nepharia, Sida, and Waltheria. 

ALTHEA Frutescens. See Hibiscus.

ALTHEA, Althea Olearium, Oregis, in Ancient Geography, a town of Spain, belonging to the Oecades; mentioned by Polybius under this name, but called Cardesia by Livy, in speaking of the exploits of Hannibal.

ALTHAMERUS, Andrew, in Biography, a Lutheran minister at Nuremberg, lived in the 16th century, and attended the conferences at Berne, in 1528, which prepared the way for the reformation in that canton. He was zealous an advocate for justification by grace, in opposition to the merit of good works, that he inveigled in a very decent and courageous manner against the apostle James, and gave him, almost, the lie direct. Grotius cites a passage from his "Annotations on James," printed at Strasbourg, in 1547, in which he charges the apostle with running counter to Scripture, and opposing his single authority against that of the Holy Ghost, the law, the prophets, Christ, and his apostles. Besides some works in divinity, he compiled a dictionary of the proper names in the Bible, "Sylva Bibliocorum nominum, &c." printed at Basle in 1553; "Conciliales locorum Scripturae," published at Nuremberg in 1536, and at Witteburg in 1582; and notes upon Tacitus, "De Situ, moribus et populis Germaniae," printed at Nuremberg in 1529 and 1530, and at Amberg in 1609, 8vo. Gen. Diet.

ALTHÆNUS, in Ancient Geography, a free city of Daunia, in Italy, the waters of which were said to cure all sorts of wounds.

ALTHEA, in Geography, a town of France, in the department of the Mayenoe, and chief place of a canton, in the district of Craon, four leagues south-south-west of Laval.

ALTHEA, in Entomology, a species of Papilio, in the class of Nymphales, with dentated brown wings, and also a fascia and stigma angular-dentated and white, found in Guiana.

ALTHEIM, in Geography, a market town of Upper Bavaria, in the district of Mandkirchen, eight miles east of Brannabu.

ALTHEPA, in Ancient Geography, a small county, placed by Plutarch, in the Argolid, near Treczena, which had borne the appellation of Ovesa.

ALTHUSIUS, John, in Biography, a German civilian, towards the latter end of the 16th century, advanced free principles on political subjects, which gave great offence to some of his contemporaries. He was a Protestant; and from being a professor of law, at Herborn, he was raised to the dignity of syndic, at Bremen. The fundamental principles of his "Politics methodically digested," printed at Herborn, in 1603, are these: "that kings are mere magistrates; that the chief power of every commonwealth is in the people only; that it is lawful to depose a tyrant, to turn him out of the administration, and even to put him to death, if no other remedy can be found, and to choose another in his room. He also composed a treatise "De jurisprudentiis Romana;"
ALTINCAR, among Minerals, a species of fortifications falt used in the fusion and purificaction of metals.

The altin carriers is a fort of flux powder. Divers ways of preparing it are given by Libavius.

ALTING, HENRY, in Biography, was born at Embden, in 1583; and, having devoted himself to the profession of a divine, he was first in 1622 to the university of Heidelberg, where he became a professor. In 1628 he was appointed preceptor to the electoral prince palatine, and in 1627 accompanied him to England, where he was introduced to the acquaintance of various others, of archbishop Abbot. In 1645 he returned to Heidelberg, where he took his degree of doctor of divinity, and was appointed director of the college of Wifdom. At the funeral of Dort, to which he was deputed in 1648, he distinguished himself by his prudence and eloquence. After his return to Heidelberg, he very narrowly escaped falling a sacrifice, when the city was taken in 1625, by count Tilly, for, as he was entering the house of the chancellor, one of the guards met him, and ignorant of his person, threatened his life; "I know where to find him, should be the 11th." Altin replied, with a resolution and constancy of mind, and at the same time with an allowable evasion, which saved his life: "I am a teacher in the college of Wifdom." When the Jesuits took possession of the house, he concealed himself in a garret, and was secretly supplied with food, till he had an opportunity of making his escape, and of following his family to Hambro. After the destruction of the palace by count Tilly's forces, he retired to Schorndorf; but here, although situated among Protestants, he encountered new trials. The Lutheran ministers of Schorndorf, who were at variance with the professors of Heidelberg, were dissatisfied with the permission which the duke of Wurttemberg had given to one of these professors to reside among them; and by reason of their jealousy and intolerance, Altin was obliged to remove to Embden in 1629, from whence he followed his late pupil, who was king of Bohemia, to Prague. Under the patronage of this prince, and in the office of tutor to his eldest son, he remained till the year 1637, when he obtained his permission to remove to Greningen, where he was appointed to the professorship of divinity, which he retained till his death. Such were his talents and character and public services, that he was held in very general estimation; but the confusion and troubles of that period prevented his taking possession of the office of divinity-professor at Heidelberg, to which he was appointed by prince Lewis Philip, admimistrator of the palatinate. Domestic affliction, occasioned by the loss of his eldest daughter and his wife, brought upon him a retarded melancholy, which, after a few months, put a period to his life, in the year 1644. Altin, though he was no friend to the innovations introduced at this period by the Socinians, was of a moderate and peaceable temper, and indocile to dispute and quarrel about trifles. "Adhering, as he judged, to the plain doctrine of scripture, he was equally dehons to avoid thefolial subtlety and fanatical scrupulosity." His works were, "Note in D. Thom. Problemata; Johannis Behm." Heidelberg. 1618; "Loci Communes," "Problemata," "Explication Cathedrae Palatiae," Amstelod. 1646; "Exegetis Auguberniae Constitutionis," the Amst. 1647; "Methodus Theologiae Didacticae," "Medulla Historiae Profanæ," published under the name of Paracelsus. Gen. Diet.
the study of the oriental languages, he put himself, in 1638, under the tuition of a Jewish Rabbi, at Ensdon. Upon his visit to England, in 1642, he was admitted to clerical orders by Dr. Puddeus, bishop of Worcester; but he altered his purpose of continued residence in this country, as soon as he received an invitation to the Hebrew professorship at Groningen. He returned to Germany in 1643, and obtained considerable distinctions of honour in the university. In this situation a rivalry commenced between him and his colleague, in the professorship of divinity, Des Maretal. The latter was addicted to the scholastic philosophy and plan of instruction; whereas the former devoted himself to the study of the Scriptures and Rabbinical learning, and acquired a degree of popularity, as a lecturer, which excited the jealousy and opposition of Des Maretal and his adherents. A dispute between these professors, who were now become competitors and rivals, had for some time prevailed; and at length the decision of it was referred to the divines of Leyden. These umpires pronounced Alting innocent of hereby, but fond of innovation, and Des Maretal deficient in modesty and candour. The civil power was at last obliged to interfere, and the penalty of deprivation was decreed against those divines, who should in any ecclesiastical assembly revive the Marefo-Altingian controversy. The magistrates proceeded by an usurpation of authority which did not belong to them, to prohibit even writing for or against the judgment of the divines of Leyden. This breach between the two professors was never thoroughly compromised; though, by the interposition of friends, a kind of formal reconciliation was effected, while Des Maretal lay on his deathbed. Alting did not long survive him, but was taken off by a fever, in 1679. He was reproached, in consequence of his attachment to Rabbinical learning, with an inclination to become Jew. His works were collected some years after his death, and published in five volumes folio, under the care of Bekker, minister at Amsterdam, by his cousin Mathi Alting, burgomaster of Groningen, who wrote a good description of the Low Countries, entitled, "Notitia Germaniae Inferioris." It is said that he preached well in three languages, German, Dutch, and English. Gen. Diet. 

ALTITUDE, in Geometry, the third dimension of body, considered with regard to its elevation above the ground—called also height or depth.

Altitude of a figure, is the distance of its vertex from its base, or the length of a perpendicular let fall from the vertex to the base.

Thus, K L (Plate I. Geometry, fig. 2.) being taken for the base of the right angled-triangle, KLM: the perpendicular KM will be the altitude of the triangle.

Triangles of equal bases and altitudes are equal; and parallelograms, whose bases and altitudes are equal to those of triangles, are just the double thereof.

Altitude, in Optics, is usually considered as the angle subtended between a line drawn through the eye, parallel to the horizon, and a visible ray emitted from an object to the eye.

For the laws of the vision of altitudes. See Vision.

If through the two extremities of an object, S and T (Plate I. Optics, fig. 13.) two parallels, TV and SQ be drawn; the angle TVS, intercepted between a ray passing through the vertex S, and terminating the shadow thereof in V, makes, with the right line TV, what is called, by some writers, the Altitude of the Luminary.

Altitude, in Cosmography, is the perpendicular height of an object, above the plane of the horizon.

Altitudes are divided into accessible and inaccessible.

Altitude, accessible, of an object, is that which base you can have access to, so as to measure the nearest distance between your station, and the foot of the object on the ground.

Altitude, inaccessible, is that which base cannot be approached, by reason of some impediment; such as water, or the like.

There are three ways of measuring altitudes, viz. geometrically, trigonometrically, and optically.—The first is somewhat indirect and unsatisfactory; the second is performed by means of instruments for the purpose; and the third by fidways.

The instruments chiefly used in measuring altitudes, are the quadrant, theodolite, geometric quadrant, or line of sights, &c. the descriptions, applications, &c. whereof, see under their respective articles Quadrant, Theodolite, and Quadrat.

Altitudes, to take accessible. To measure an accessible altitude geometrically.—Suppose it required to find the altitude AB (Plate I. Geometry, fig. 3.) plant a staff, DE, perpendicularly in the ground, of such height as may be equal to the height of the eye. Then, lying prostrate on the ground, with your feet to the staff; if E and B prove in the same right line with the eye C, the length CA is equal to the altitude AB. If some other lower point, as F, prove in the line with E, and the eye, you must remove the staff, &c. nearer to the object; on the contrary, if the line continued from the eye over E, mark out some point above the altitude required; the staff, &c. are to be removed farther off, till the line CE raithe the very point required.

Thus, measuring the distance of the eye C from the foot of the object A, the altitude is had; since CA = AB.

Or thus: at the distance of thirty, forty, or more feet, plant a staff DE (fig. 4.) and at a distance from this, in C, plant another shorter one, so as that the eye being in F, E and B prove in the same right line therewith. Measure the distance between the two staffs, GF; and between the shortest staff and the object, HF: as also, the difference of the heights of the staffs, GE.—To GF, GE, and HF, find a fourth proportional BH.—To this add the altitude of the shorter staff, FC. The sum is the altitude required, AB.

To measure an accessible altitude, trigonometrically.—Suppose it required to find the altitude AB (fig. 5.) choose a station in E; and with a quadrant, theodolite, or other graduated instrument duly placed, find the quantity of the angle of altitude ADC. Measure the shortest distance of the station from the object, viz. DC, and this of consequence is perpendicular to AC.

Now, C being a right angle, it is easy to find the side AC; since, in the triangle ACD, we have two angles, viz. D and A its complement, and a side opposite to one of them, CD, the side opposite to the other may be easily found by this canon. As the line of the angle A is to the given side opposite to it DC, so is the line of the other angle D to the side required CA. To this side, thus found, adding BC, the sum is the perpendicular altitude required.

Or say, as radius is to the distance DC, so is the tangent of the angle ADE to AC, the height of the object; and adding the altitude of the instrument above the ground, the whole height of the object is found. The operation is best performed by logarithms. E. G. Suppose the angle ADE = 51° 52'; and the distance DC = 64 feet. Then it will be,

Radius
To which add four feet, the height of the eye, and the altitude required, or AB, is 8.51 feet.

This may also be resolved by projection, thus: draw DC, on which set 64 feet from any scale from D to C; erect the perpendicular CA; then make the angle CDA = 51° 52', and draw DA, intersecting the perpendicular in A, the top of the object. Then CA, measured on the same scale, will give 8.51 feet.

If there happen an error in taking the quantity of the angle A, (fig. 6) the true altitude BD will be to the false one BC, as the tangent of the true angle DAB, to the tangent of the erroneous angle CAB.

Hence, such error will be greater in a greater altitude than in a less; and hence also, the error is greater, if the angle be less, than if it be greater. To avoid the inconveniences of both which, the station is to be pitched on at a moderate distance; so that the angle of altitude DAB, may be nearly half right.

Again, if the instrument were not horizontally placed, but inclined, e. g. to the horizon in any angle, the true altitude will be to the erroneous one, as the tangent of the true angle to that of the erroneous one.

If the plane intercepted between the observer, and the object be inclined, as in fig. 7; two stations C and D must be selected, and their distances from the base of the object, viz. CA and DA must be measured. Then as the external angle ACB is equal to CDB + DBC, the angle DBC = ACB - CDB, or DCB is equal to the supplement of ACB; in either way the angles of the triangle BCD are known, and one side DC is given; then, say, the sine of DBC : DC :: sine BDC : BC, which will be known; and in the triangle ABC, the two sides CA and CB being given together with the included angle, we shall have CB + CA : CB - CA :: tangent of \( \frac{B + A}{2} \).  

tangent of \( \frac{B + A}{2} \), whence the angles will become known; and it will be easy to find AB the altitude of the object as before. Otherwise, measure the distance AC, and the angles A and C; and as in the triangle ACB, all the angles and one side AC are given, the other side AB will be easily found.

To measure an inaccessible altitude optically, by the shadow of the body, see Shadow.

To measure the altitude of any object by optical reflection, place a plane mirror, or a vessel of clear water, horizontally at C, (fig. 8.3), and retreat from it to such a distance at D, that the eye E may just perceive the image of the top of the object, in the reflecting surface at C; then, as these triangles, having two equal right angles, and the angle ACB = ECD, because the angles of incidence is equal to the angle of reflection, are similar, we shall have CD : DE :: CA : AB, the altitude required.

To measure an inaccessible altitude by the geometrical quadrant or square. Suppose it required to find the altitude AB (fig. 9.) choosing a station at pleasure in D, and measuring the distance thereof from the object DB; turn the quadrant this way and that way, till the top of the tower A appear through the sights.

If then, the thread cut the right shadows, say, as the part of the right shadow cut off, is to the side of the quadrant, so is the distance of the station DB, to the part of the altitude AE. If the thread cut the left shadow, say, as the side of the quadrant is to the part of the vertical shadow cut off, so is the distance of the station DB, to the part of the altitude AL.

AE, therefore, being found in either case, by the rule of three, and the part of the altitude BE added to it, the sum is the altitude required. See Quadrat.

Altitude, to measure an inaccessible, geometrically. Suppose AB (fig. 4.) an inaccessible altitude, so that you cannot measure to the foot of it. Find the distance CA, or 1 FT, as taught under the article Distance; then proceed with the rest as in the article for accessible distances. See Staff.

To measure an inaccessible altitude, trigonometrically.—Choose two stations G and E (fig. 16.) in the same right line, with the required altitude A B, and at such distance from each other, DF, as that neither the angle FAD be too small, nor the other station G too near the object AB. With a proper instrument take the quantity of the angles ADC, AFE, and CFB; and also measure the interval FD.

Then, in the triangle AFD, we have the angle 3, given by observation; and the angle FAD, by substracting the observed altitude A FE, from two right angles; and consequently the third angle DAF, by subtracting the other two from two right ones; and also the side FD; from whence the side AF is found by the canon above laid down, in the problem of accessible altitudes. And again, in the triangles ACF, having a right angle C, and observed angle F, and a side AF, the side AC, and the other CF, are found by the same canon. Lastly, in the triangle FCB, having a right angle C, observed angle CFB, and a side CF; the other side CB, is found by the same canon.

Adding, therefore, AC, and CB, the sum is the altitude required, AB.

E. G. Suppose A FC to be 58° and ADC 38°, and the distance of the stations FD to be 26 yards. Subtract ADC or 38° from A FC or 58°, and there remains FAD or 20°. Then, in the triangle ADF, the angles and one side being known, we shall have sine of DAF, sine of ADF, FD : FA i. e. S. 20° : S. 38° :: 26 : a fourth, or by logarithms, 9.5330957 :: 9.7893420 :: 1.414973 :: 9.7893420 + 1.414973 - 9.5330957 = 1.0567253 the log. of 45.8. Again, in the triangle ACF, radius sine of AFC : AF : AC; i. e. rad. : S. 58° : 46.8 :: 4.04, and by logarithms, 10.6000000 :: 9.0284205 :: 1.0567253 + 4.68 = 10.6000000 :: 1.0567253, the log. of 59.69 or 59 yards two feet, to which add the height of the instrument above the ground, and we have the altitude required.

By projection; draw a line DC, and at the extremity D make the angle ADC = 38°, and draw the line DA. Then set off the distance of the stations 26 from D to F, and at F make the angle A FC = 58°, and draw FA to intersect DA in A; then the distance of A from the horizontal line DC, applied to the scale, will give the height.

If two stations be taken at F and D, so that the angle A FC may be 2 ADC, DF will be A F; and radius will be to the distance of the stations DF or AF :: S. AFC : the altitude AC.

If the station at F be such, that the angle A FC may be 45°, and the angle ADC = 26° 34', the altitude AC will be equal to DF the distance of the two stations. For when A FC is 45°, AC = CF = FD, and CD = AC, as radius : natural tangent of 26° 34' :: 2 : 1; i. e. :: DC (or 2 AC) : AC.
We may hence deduce a method of finding the height of one object, as \( AC \), situate upon another HC. Find, first, the whole altitude \( AC \), and then the altitude of HC, as above, and their difference will be the altitude of \( AH \), as e.g. of a fire above the tower of a fleệp. If the height of the tower HC is known, any distance DF in the horizontal line DC may be measured from H. This is the reverse of the preceding problem.

To measure the altitude of a balloon, cloud, or other moveable object, C: (§ 11.) let two observers at A and B, in the same horizontal plane, take, at the same time, the angles \( CAD \) and \( CBD \), and measure the distance \( AB \) between the stations; and then the altitude may be calculated as before. The height of a cloud may be found by its shadow in the following manner. Observe the cloud C, (§ 12.) in its direct access to or recedes from you; and marking the instant in which the middle of the shadow is at some remarkable point upon the ground as at A, at that moment take the altitude ABC of the middle of the cloud. Then, take the fun’s altitude at your station B, and that will be equal to the angle BAC, and measure the distance between your station and the place of the shadow. In the triangle \( ABC \), as all the angles and one side are known, it may be easily projected, and the height of C above BA may be determined: or it may be resolved trigonometrically thus:

\[
\sin \angle C = \frac{AB}{AC} = \frac{s.B}{s.C \times AB}; \quad \frac{r.A}{r.B} = \frac{s.A}{s.B} \times AB, \]

rad. : \( AC \) : \( AB \) : \( AC = \frac{s.B}{s.C \times AB} \); or rad. \( r.A \) : \( r.B \) : \( \sin \angle C \) : \( \sin \angle B \).

N. B. The cloud should be small, because the observation must be at a point. If the cloud be large, its edge as well as the edge of the shadow must be observed; and the stations must be upon a large plain or open ground.

To find an inaccessible altitude by the shadow, or the geometrical quadrat.—Choose two stations in D and H (§ 9.) and find the distance DH, or GC; observe what part of either the right or verfed shadow is cut by the thread.

If the right shadow be cut in both stations, say, as the difference of the right shadow in the two stations, is to the side of the square; fo is the distance of the stations GC to the altitude EA. — If the shadow cut the verfed shadow at both stations, say, as the difference of the verfed shadow marked at the two stations, is to the lesser verfed shadow; so is the distance of the stations GC, to the interval AE. — Which being had, the altitude EB is also found by means of the verfed shadow in G; as in the problem for accessible altitudes.

Lastly, if the thread in the first station G, cut the right shadow, and in the latter, the verfed shadow; say, as the difference of the product of the right shadow into the verfed, subtracted from the square of the side of the quadrant, is to the product of the side of the quadrant into the verfed shadow; so is the distance of the stations GC, to the altitude required AE.

The utmost distance at which an object may be seen in the horizon, being given, to find its altitude.

Suppose the top \( H \) of a tower \( FH \) (§ 13.) just visible at E, the distance EF being 25 miles; and suppose the circumference of the earth to be 25000 miles, or the radius 3979 miles, or 21097120 feet. Then 21097120 = 21 360° 21' 30" = the angle \( EGH \); and radius : secant of the angle G = \( EC : GH = 21097120 \) feet, and 21097120 = 416 feet or FH the height of the tower.

Otherwise.—In the right-angled triangle \( GEF \), \( GH \) or \( GF \) = \( GH \) or \( 2 GF \times FH + FH^2 = GF^2 + FH^2 \). But GF being \( GF \), \( 2 GF \times FH + FH^2 = HE^2 \) or \( 2 GF \times FH = HE^2 - EF^2 \), and \( HE = 12 GF \) but \( 2 GF \), or the earth’s diameter, is 21009120 miles, therefore \( \frac{EF}{\sin \angle F} = FH \) in miles, and \( \frac{EF \times 1560}{7958} \)

\( = FH \) in yards.

Or, the altitude FH may more easily be found thus. The horizon dips nearly eight inches or \( \frac{1}{4} \) of a foot, at the distance of one mile, and according to the square of the distance for other intervals; therefore, as \( 1^1 \) or \( 125^n = \frac{3}{4} \) of 625 or 416 feet.

The method of taking considerable terrestrial altitudes, of which those of mountains are the greatest, by means of the barometer, is very easy and expeditions. This is done by observing on the top of the mountain how many inches, &c. the mercury is fallen below what it was at the foot of the mountain. When this is done, you will have its altitude by the help of a table calculated for that purpose. A very accurate table of this kind may be found in the Hift. de l’Acad. Roy. des Scien. 1703, and 1705, calculated by Mr. Cassini; and also in the Phil. Trans. Eames’s and Martyn’s Abr. vol. vi. p. 54. See Barometer.

Altitude of the eye, in Perspective, is a right line let fall from the eye, perpendicular to the geometrical plane. See Perspective.

Altitude, in Astronomy, is an arc of a vertical circle, intercepted between the fun, moon, star, or other celestial object, and the horizon.

This altitude may be either true or apparent. If it be taken from the rational, or real horizon, the altitude is said to be true, or real; if from the apparent or sensible horizon, the altitude is apparent. Or rather, the apparent altitude is such as results from observations made at any place on the surface of the earth, and the true is that which has been corrected, on account of the refraction and parallax.

The true altitudes of the sun and fixed stars differ but very little from their apparent altitudes, because of their great distance from the centre of the earth, and the smallness of the earth’s diameters, when compared with it. The quantity of refraction is different at different altitudes, and the parallax is different according to the distance of celestial objects; in the fixed stars it is too small to be observed; that of the sun is about \( 5^\frac{1}{2} \) seconds, and that of the moon about 52 minutes. The altitudes of the heavenly bodies are observed by a quadrant or sextant, or by the shadow of a gnomon, and by various other ways may be found without a quadrat, or any like instrument, by erecting a pin or wire perpendicularly as in the point C (Astronomy, Plate I. § 5.) from which point you have described the quadrantal arc AF. Make CE equal to the height of the pin or wire, and through E draw ED parallel to CA, and make it equal to CG, the length of the shadow; then will a ruler, laid from C to D, intersect the quadrant in B; and BA is the arc of the sun’s altitude, when measured on the line of chords.

The sun’s altitude may be computed by the following rule, proposed by Mr. Lyons for nautical purposes. By the rules in the Nautical Almanac, for 1771, find the logarithm ratio; subtract it from the rising found anfwering to the given distance of time from noon, in the tables of the same Almanac; the remainder is the logarithm of a number, which
which subtracted from the natural line of the sun's meridian altitude, leaves the natural line of the altitude at the required time. For, finding the altitude of the moon or a star, he gives the following rule. From the tables above mentioned, take out the rising, corresponding to the hourary angle in the distance of time from the star's pulling the meridian; add to it the logarithmic cosine of the star's declination, and the logarithmic cosine of the latitude of the place; the sum, abating twenty from the index, is the logarithm of a number, which subtracted from the natural line of the star's meridian altitude, leaves the natural line of the altitude at the given time. These rules are of great importance in determining the longitude at sea. See Naut. Alm. for 1778.

In taking of altitudes from the visible horizon, where great exactness is required, an arrangement is to be made for refraction, and the height of the observer's eye above the surface of the sea. To find the altitude of the stars, &c. by the globe, see Globe.

An irregularity has been observed in the apparent altitudes of the stars near the meridian. On some occasions, when they are mounting towards the meridian, they appear to fall, and after passing the meridian, to rise. Hili. Acad. Scin. 1710. p. 75.

M. Parent suggests a new method of taking altitudes at sea, by a common watch. It is obvious, that in an oblique sphere, the difference between the rising and setting of two stars, in the same meridian, is greater, as they are farther distant from one another.

Now the astronomic table furnishing us with tables of the right ascensions and declinations for the fixed stars, it is easy, after observing the difference of time between the rising of two stars, to distinguish that part of the difference which accrues from their different position from that which arises from the obliquity of the sphere. But such difference is the precise height of the pole of the place of observation.

Indeed, the ship not being immovable, but changing place between the two observations, seems to lay the method under some difficulty; but to this M. Parent answered, that a small alteration either of the ship's longitude or latitude, will make no sensible error; and that if the have gone a large distance between the two observations, it is easy reckoning how much it is, and accordingly allowing for it. See Sailing.

Altitude, meridian. The meridian being a vertical circle, a meridian altitude, that is, the altitude of a point in the meridian, is an arch of the meridian intercepted between it and the horizon.

If HO (Astronomy, Plate 1., fig. 6.) be the horizon, and HZP the meridian, then the arc HE, or the angle HCE will be the meridian altitude of an object in the meridian at the point E.

To observe the meridian altitude of the sun, of a star, or other phenomenon, by means of the quadrant, see Meridian Altitude.

To observe a meridian altitude by means of a gnomon, see Gnomon.

Altitude, or elevation of the pole, is an arc of the meridian OP (fig. 6.) intercepted between the pole P and the horizon; or the angle OCP.

The altitude of the pole coincides with the latitude of the place; and may be found by observing the meridian altitude of the pole star, when it is both above and below the pole, and taking half the sum, after it has been corrected on account of refraction. Or the same may be found by means of the declination and meridian altitude of the sun.

Altitude, or elevation of the equator, is the complement of the altitude of the pole to a quadrant of a circle. Or, it is the angle HIC (fig. 6.) or arc HIC of the meridian between the horizon and the equator at E, and equal to 90°, the colatitude of the place.

Altitude of the tropics amounts to the same with what is otherwise called the solstitial altitude of the sun, or his meridian altitude when in the solstitial points.

Altitude of the horizon, or of stars seen in it, is variable by the refraction, according to the quantity of which the horizon is, more or less, either elevated or depressed.

Altitude, refraction of, is an arc of the vertical circle, as SR (Astronomy, Plate 1., fig. 7.) whereby the altitude SE, of a star or other celestial body, is increased by means of the refraction. This is different at different altitudes, being nothing at the zenith, and greatest at the horizon, where it is about 33°. See Refraction.

Altitude, parallax of, is the difference CB (fig. 8.) between the true and apparent place of a star, or the difference BC, between the true distance of a star A B, and the observed distance AC, from the zenith A. The parallax diminishes the altitude of a star, or increases its distance from the zenith. This arc, or the angle measured by it, is evidently less, as the celestial body is farther distant from the earth, and also less, for the same body, as it is higher above the horizon, being greatest there and nothing at the zenith. To find the parallax of altitude, &c. see Parallax.

Altitude of the sun, or moon's shadow denotes the height of the shadow of one or the other in an eclipse, and is measured from the centre of the body. It is found by this proposition: as the tangent of the angle of the sun's apparent semidiameter is to radius, so is one to a fourth proportional, which will be the height of the shadow in semidiameters of the body. The greatest height of the earth's shadow is 217.8 semidiameters of the earth, when the sun is at its greatest distance, or his semidiameter subtends an angle of about 15° 47'; and the height of the same is 210.7 semidiameters of the earth, when the sun is near the earth, or when his semidiameter is about 16° 19'; and between those limits it is proportional to the intermediate distances or apparent semidiameters of the sun. The altitudes of the shadow of the earth and moon are nearly as 11 to 3, the proportion of their diameters.

Altitude, or exaltation, in Astrology, denotes the second of the five essential dignities, which the planets acquire by virtue of the signs in which they are found.

Altitude of motion, in Mechanics, is a term used by Dr. Wallis, for the measure of any motion, estimated according to the line or direction of the moving force.

Altitude, determinative, is sometimes used for the height, whence a falling body acquires, by acceleration, a certain velocity. Heron. Pneum. lib. 1.

Altitude, in speaking of fluids, is more frequently expressed by the term depth.

The ingenious Dr. Hales, in his vegetable Statics, proposed a method of measuring unfathomable depths of the sea; on the principles by which Dr. Defagault contrived an instrument called a sea-gage, which was tried before
the Royal Society; and is described in the Phil. Trans. No 405. A more particular description of this instrument by Dr. Hales himself is as follows.

Suppose A B (Miscellany, Plate I. fig. 1. to be an iron tube, or musket-barrel, of any length, as fifty inches, having its upper end A well closed; if this tube be let down in this position about thirty-three feet into the sea, a column of water of that height is nearly equal to the mean weight of our atmosphere, and, consequently, from a known property of the air's elasticity, it will be compressed into half the space it took up before, so that the water will ascend half way up the tube; and if the tube be let down thirty-three feet deeper, the air will be compressed into of its first dimensions, and so on, 1, 1, 2, &c. the air being constantly compressible in proportion to the incumbent weight; whence by knowing to what height the water has ascended in the tube, we may readily know to what depth the tube has ascended into the sea.

Now to measure the depth of one of these columns of sea-water: first, by a line let the iron tube, with a weight at its bottom, sink about thirty-three feet, which depth in salt water will nearly answer to the weight of the air at a mean height of the barometer; then draw up the tube, and observe how far the water rose. If thirty-three feet of water be equal to one atmosphere, then will the water rise so high as to fill exactly one half of the tube. But if the water rise higher or lower than half-way, then, by the rule of three, say, as the number to which the water rises is to one, so is thirty-three to the number of feet, measuring the depth of the column required. For example, suppose the water rises, when the tube is let down thirty-three-three feet, only of half-way, then say, 9 : 10 :: 33 : 36 feet the depth of each column, which being once known, the number of columns of water is to be multiplied by this number of feet, whereby the depth of the sea in feet will be known.

But since, when the instrument has ascended to the depth of 99 columns, or 99 times 33 feet, the air will be compressed into the part of 50 inches, that is, into half an inch, the divisions both for some space below and also above that will be so very small, that the difference in depth of several columns of water will not be sensible. So that an instrument of no greater length than this would scarcely give an accurate estimate of half a mile's depth, that is 2640 feet, or 80 columns depth of water. The lengthening of this instrument to 4, 5, or 10 times this length would obviate this defect, and make the difference of the degrees of depth much more sensible. But since it is impracticable to make a metallic tube of so great a length, and if it were made, it would be so unwieldy as to be easily broken, the difficulty may be obviated in the following manner.

Let there be a globose metallic body of iron or copper, nearly of this form (fig. 2.) K, L, M, N, Q, whose capacity within may be equal to nine times the capacity of the metallic tube, Z, K, L; let this globose body be firmly screwed to the metallic tube, at K, L, with a leathern collar, well soaked in some unctuous matter at the shoulder, or joining, thereby to secure that joint in the most effectual manner. Let there be a small hole at X for the sea-water to enter freely in, and let some coloured oil be poured into the globose body, to fill it up to the hole X. Let there be also provided a slender rod d, screwed, or fastened into the metallic tube e, which must also be made to screw in and out, whereby to take out the rod at pleasure; the rod must also have a small button d fastened to its upper end, which will prevent its being daubed by falling against the sides of the tube.

The capacity of the tube must be estimated by pouring water in, when the rod and metallic tube are fixed in their places.

Now since the lower vessel is supposed to contain nine times as much air as the tube ZL, which is the same thing as if the tube were nine times as long, therefore the air in the globose vessel will not all be forced within the capacity of the tube, till the vessel has ascended to the depth of nine columns, or nine times 33 feet; for then the air will be compressed within one tenth of the space it first took up. Suppose, therefore, the instrument to have ascended to the depth of 99 columns of water, or 99 times 33 feet = 3267; then the air will be compressed within part of 500 inches (the capacity of the whole vessel being supposed equal to the tube of that length), that is, within five inches of the top of the tube; and, consequently, the rod d will be found tinged with the oil, within five inches of its top.

Suppose again the instrument to have ascended to the depth of 199 columns, or 33 feet each, then the air will be compressed within part of the whole, that is, nearly within 1 inch of the top of the tube. In this case, the instrument will have ascended 3567 feet; that is, one mile and a quarter, and 132 feet.

Suppose again the instrument to have ascended to the depth of 399 columns, then the air will be compressed into part of the whole, that is, nearly within one inch and a quarter of the top of the tube. In this case the instrument will have ascended two miles and a half, wanting 53 feet, which may probably be the greatest depth of the sea.

The larger the capacity of the vessel K, L, M, N, Q, the deeper will the gage be enabled to sink, the instrument being made stronger, and its joints being secured in proportion.

The instrument being thus prepared, a large buoy, i, must be fixed to it, which ought to be a solid piece of light wood, well tarred to prevent the water's being pressed into the lap-vessels; and as it may rise at a considerable distance from the ship, it may be advisable to fix on the top of the buoy broad fans of tin, properly painted, so as to be easily seen.

In order to sink the instrument, a weight must be fixed to it in the following manner. See the diagram. W is a weight of ballast, hanging by its fleet shank T, in the socket ff, which socket is screwed fast to N Q. The shank is retained in its place by the ketch k of the spring Q, while the machine is descending; but as soon as W touches the ground at the bottom of the sea, the ketch O L sinking by the descending force, a little below the upper part of the hole k, is therefore at liberty to fly back, and so let go the weight; then the buoy rises up to the surface of the water with the machine. Springs might also be fixed on the inside of the socket ff, so as to fly back in the same manner, when the weight touches the ground. It might be advisable to keep an exact account of the fall of the machine under water, which might be done by a watch, or by a pendulum vibrating seconds. Dr. Hook found upon trial, that a leaden ball which weighed two pounds, fixed to a wooden ball of the same weight, and both let down in fourteen fathom water, reached the bottom in seventeen seconds; and the detached wooden ball ascended to the surface in seventeen more. See Phil. Trans. Lowthorp's Abr. vol. i. p. 258. Consequently if this machine descended and ascended greater depths with
with the same velocity, it would reach to the depth of a mile in seventeen minutes, and resound in the like time. This, however, might be a vague estimate, until experience has furnished a rule.

This machine was tried in various depths in the Thames, and answered very well, always returning, and leaving the ballast behind. It was afterwards tried near the Bermudas, when several ships were in company; but though a good look-out was kept for three or four hours, it was not seen to return. Hale's Statics, vol. ii. p. 328.

Altitude of the sea's surface is not everywhere where the same, as appears from the drift of currents setting strongly out of one sea into another.

Altitude of the mercury, in the barometer, is marked by degrees placed on the face of that instrument, the variations of which are the chief object of barometrical observations.

The mean altitude of the mercury at London for every day in several years is about 29.87 inches; and its variations are computed between 31 and 28 inches. Some speculations have been made, as if the altitude of the mercury were regularly greater in the morning than in the evening; at least something of this kind was observed to hold for a considerable time at Berlin. Hilt Crit. Rep. Lett. tom. xiv. p. 239.

Altitude of the pyramids in Egypt, was measured fo long ago as the time of Thales, by means of their shadow, which makes one of the first geometrical observations we have an exact account of. Plutarch has given an account of the manner of this operation, which, according to this author, was done by erecting a staff perpendicular upon the end of the shadow of the pyramid; and by two triangles made by the beams of the sun, he demonstrated that there was the same proportion between the shadows as between the pyramid and the staff. Stani. Hilt. Phil. p. 1. p. 9. See Pyramid.

Altitude, circles, parallels, and quadrant of. See the respective articles.

Altitude instrument, equal, is that used to observe a celestial object, when it has the same altitude on the east and west sides of the meridian, or in the morning and afternoon. This instrument consists of a telescope about 30 inches long (with two vertical, and three or five horizontal wires in its focus), supported on the end of an iron bar or axis, 30 inches long, and about an inch in diameter; the axis being fastened in a vertical position by passing through a hole in one end of a brass box, whose other or lower end sustains the lower joint of the axis. The box, which is about 21 inches long, with ends about four inches square, has only two sides, which are fixed at right angles. From one of these sides project four flat arms, with a hole in each, whereby the box is, by screws, fixed in a vertical position to an upright post. On the lower end of the box lies a brass plate, which slides in grooves, and can, by means of a screw, be gently moved forwards or backwards; this plate is a fine punched hole, to receive the smooth conical point, into which the lower end of the axis is formed. On the upper end of the box are two plates, which slide also in grooves; and, by the means of screws, can be gently moved sideways, till their angular notches embrace the axis, which, in this part, is made perfectly cylindrical and very smooth. To the upper part of the axis is fixed, by its radius, a brass sextant (or arch of 63°, to a radius of seven or eight inches) with the arch downwards, so that the centre is just above the top of the axis: also a spirit-level is fixed at right angles across the axis, just under the arch, so as to be clear of the upper end of the box. To the under part of the telescope is fixed a brass fi-
from bulle relieves only in the work being much more relieved and brought forward.

To any representation half-relieved or worse, if it be not entirely detached from the ground behind, sculptors apply the appellation of Alto Reliefo.

ALTON, in Geography, a town of England, in Hampshire, situate on the river Wye. Its manufactures consist of plain and figured baragons, ribbed druggets and ferges; and round the town is a plantation of hops. Its market is on Saturday, and it is distant from London 47 miles.

ALTON is a village near Uttoxeter, in Staffordshire, in which are the ruins of a castle, supposed by Dr. Plot to have been erected by Theobald de Verdun in the beginning of the reign of Edward II, but by others apprehended to be prior to the Norman conquest.

ALTON, a tract of land in Stafford county, New Hampshire, in America, north-east from Barnstead.

ALTONA. See ALTEA.

ALTO, in Ancient Geography, a river of Britain, mentioned by Tacitus, and supposed to be the same with the Avena or Avon; but as there are many rivers of this name, it is conjectured that the Alto of Tacitus flowed by Northampton and Peterboroughcall.

ALTORF, in Geography. See ALTENDORF.

ALTORF, or ALTENDORF, a town of Germany, in the circle of Franconia, now small, but of great antiquity. It has an university with a valuable library, an anatomical theatre, chemical laboratory, and botanical-garden. It has undergone many revolutions from the year 912, when it is mentioned in some ancient records. It is subject to the house of Brandenburg, and is situated 12 miles east-south-east of Nürnberg. N. lat. 49° 25', E. long. 11° 7'.

ALTREMBHAGH, a town of England, in Cheshire, near the canal that pales to Warrington from Manchester, and about 8 miles from the latter town. The market is on Tuesday, and it is 1793 miles from London. N. lat. 53° 25', W. long. 4° 25'.

ALTSOHL, a district and town of Hungary, six miles south-south-west of Neufohl.

ALTSCHTATT, a town of Germany, in the circle of Upper Saxony, and margravate of Meißen, near Stolpen.

ALTSTEVEN, a town of the circle of Wittphalia and bishopric of Munster, five miles north-west of Ahaus.

ALTSTEVEN, or ALTSTETTEN, a town of Swifferland, in the Upper Rhine, seven miles east of Appenhein.

ALTSCHOTZ, or a river of Aisia, which runs into the Tigris, 10 miles above Tebriz, in the province of Kurdistan.

ALTZEN, a town of Aisia Turkey, in the province of Natoîa, 20 miles north-west of Kutaja.

ALTUR, or ALTUR, a coast port town of Aisia, in Arabia Petraea, situate to the west of Mount Sinai, and towards the extremity of the western part of the Red Sea. The Greeks called it Raitho; the houses are built of white coral, which is found in great abundance on the coasts of the Arabian gulf. The inhabitants are partly Arabs and partly Christian Greeks. The monks of Mount Sinai have a convent in this place. Its port, like that of Suez, can admit no large vessels. N. lat. 28° 20', E. long. 34° 39'.

ALTSZENAU, a town of Germany, in the circle of the Lower Rhine, five miles south-east of Hanau.

ALTZHEIM, or ALTZHEIM, anciently ALEHN, a town of the Lower Rhine, in the Lower Palatinate, with a citadel, on the river Selz, and the capital of a prefecture of the same name, three miles south-west of Oderhein, and 14 north-west of Worms. N. lat. 49° 44', E. long. 7° 55'.
progress of the Reformation, had excited a very general dis-
satisfaction among his subjects in the Low Countries; and
therefore, in 1567, he determined to send the Duke of Alva
with an army to compel the discontented to submit to his
will, and to punish them for their disobedience. No person
could be a fitter instrument for the execution of his purpose.
The duke not only approved, but advised and recommended,
his immediate measures. Notwithstanding the remonstrances
of the regent, the Duke of Parma, Philip persisted in his pur-
pose; and the Duke of Alva, with a considerable army, dir-
rected his march to the Netherlands, and, after harrying
the frontier towns, proceeded to Brussels, where he arrived
in the month of August, A.D. 1567. His arrival spread
great conflagration and affliation over all the provinces.
Many thousand persons had before this time left the country,
among whom was the Prince of Orange, who would gladly
have prevailed upon Count Egmont to accompany him. But
he did not perceive the danger that awaited him. The
prince took a sorrowful leave of his with these memorable
words, which a disfamed event must soon have brought to
his recollection: “You are the bridge, Count Egmont, by
which the Duke of Alva will pass into the Netherlands, and
he will not sooner pass it than he will break it down. You
will repent of defying the warning which I have given you,
but I dread that your repentance will be too late.” One of
the duke’s first acts, after his arrival, was to call both Count
Egmont and Count Horn into prison; and their impris-
monment was soon followed by their trial, condemnation and
death. The Dukes of Parma, after repeated solicitations,
obtained permission to quit the country, and he left Brussel
in the beginning of the year 1568, much regretted by all,
and particularly by the Protestant, to whom her adminis-
tration appeared mild and gentle, compared with that which
they had reason to expect under the present government.
As soon as she was removed, the Duke of Alva fully disclosed
his commission, and his powers appeared to be much greater
than those of any former governor, and such as were subor-
dine of all the rights and privileges which Philip, as sovere-
ign of the Low Countries, had at his inauguration solemnly
sworn to maintain. But the pope had previously granted him
a dispensation from his oath, so that his mind was quieted
in every measure of despoticism and cruelty, which he dictated
or sanctioned. Alva’s commission, besides the absolute com-
mmand of the army, comprehended the presidency of the
three councils of state, of justice, and of the finances, with
ample powers to punish or to pardon crimes of every kind
at his own pleasure. Allowing to the Reformers a month for
leaving the country, he issued secret orders to the Inquisition
to proceed immediately in the most rigorous execution of
their edicts. For their assistance and encouragement he instituted
a council of 12 persons, most of whom were Spaniards, and of
which the duke was the president, called the Council of Tu-
mults; but by the Flemings, jully denominated the “Council
of Blood.” Thus fortified and aided, the duke proceeded to
build citadels at Antwerp, and in several other cities, and to
spare his troops over the country in such formidable bodies,
that the people, who could not endure their oppression and
rapacity, either forsook their habitations, or abandoned
themselves to despair. Above 20,000 persons escaped at
this time into France, England, and the Protestant provi-
ces of Germany. Some were seized in their flight, and innocent
persons were overwhelmed with horror at the sight of the
dreadful punishments inflicted on those who were charged
with guilt; and all concurred in lamenting that a country,
once eminently flourishing and distinguished by the mildness
of its government and the happiness of the people, should
now present to view so other object besides confiscations,
imprisonment, and blood. In the space of a few months
more than 400 persons followed by the hand of the execu-
tioner; and yet Alva’s thirst of blood was unquenched.
Like a heart of iron, this vaster tyrant feared no secret
recess, and his soldiers, accompanied by the populace,
were let loose among the Protestants, who were read in
the middle of the night in their beds, and from thence
dragged to prisons and dungeons. Those who had been
only once pritnate in Protestant affairs, although they dis-
claimed their faith in the Catholic religion, to be born and
brought up, were hanged or drawn. And thefts who professed
themselves Protestants, or who refused to shun their reli-
gion, were put to the rack in order to make them disavow
their associates; they were then dragged by hundreds to the
place of execution, and those bodies being committed to the
flames, their sufferings were prolonged with innumerable
cries. To prevent them from bearing in mind the wicked
acts of truth to their profession, their tongues were
first scorched with a glowing iron, and then serrured into
a machine, contrived on purpose to produce the most excruc-
iating pain. It is, indeed, shocking to recount the hardships
inflicted on human cruelty perpetrated by Alva, and his asso-
ciates; especially when we consider that the unhappy victims
were generally persons of the most moderate char-
acter, who, having imbibed the principles of the Refor-
mation, were too honest to dignify their sentiments; or, to
say the word of them, who had been betrayed into injustice
by their zeal for propagating truths, which they believed to
be the highest importance to the glory of God, and the
happiness of mankind. The hearts of even some members of
the “bloody council” revolted against the repeated acts of
cruelty to which their function was required; some of them
sought a dismissal, others absented themselves, and of the
12 that composed the council, there were seldom more than
three or four present. At this time the magistrates of Ant-
werp, whose behaviour had been uniformly obsequious dur-
ing the whole of Alva’s administration, presented an in his
petition on behalf of some citizens whom the inquisitors had
imprisoned. To this petition Alva returned a haughty res-
tply, reproaching them for folly and presumption in applying
on behalf of heretics; threatening them with tokens of his
displeasure; and even afflicting them, that if they persisted
in such measures, they would hang them all, for an example,
to deter others from similar presumption. Some of the catho-
lie nobility also remonstrated to the king against the gov-
ernor’s barbarity, and the pope exhorit him to greater modera-
tion. But the inquisitors enforced the council of Vargas,
who recommended perseverance, and Philip turned a deaf
to the remonstrance which had been made to him; and
the persecutions were continued with the same unrelenting
fury. The people were reduced to circumstances of extreme
difficulty, and they had no resource but in the wildness, pub-
lic spirit, and extensive influence of the prince of Orange.
Alva, soon after his arrival in the Netherlands, opposed
William to appear before him, but he was too garrulous to
be defused by promises of lenity, and refused to obey the
citation, afflicting, at the time of sentence, a variety of reas-
o for his conduct. Several other noblemen were cited to answer
for their conduct; and, upon their refusal, Alva pronounced sen-
tence against them, and confuted their effects. The Prince
of Orange at length had recourse to arms; but whilst he was
employed in making levies, his brother Count Lewis arrived
with an army in the Netherlands, and resolved to make his
first attempt on Groningen. The Spanish army under Count
Aremberg was sent to oppose him, but Lewis was victorious.
However, Alva soon marched against him with a superior army,
and totally defeated him. The Prince of Orange prepared
for acting by publishing a manifesto, in which he declared that his religious sentiments were changed, and that he was now convinced that the opinions of the Protestants were more conformable to the Scriptures, the rule and standard of Christian faith, than those of the Romish church. William was a formidable enemy; and it required all the caution and valor of Alva, and of his son Federick of Toledo, to prevent him from breaking in upon the Netherlands. Alva succeeded; and the prince, disappointed in his expectation of supplies, was under a necessity of disbanning his army. After this event Alva marched in triumph to Bruxelles, and commanded a solemn thanksgiving for his success to be observed through all the provinces. He ordered a statue of himself to be formed of brass, and medals to be struck. On one of these medals he was represented riding in a triumphal chariot, with a Victory behind him, putting a crown upon his head. In his right hand he held a sword, to signify that he had conquered Lewis by open force; and in the left an Aegeis, to express that wisdom of which he had availed himself against the prince of Orange; and as a farther emblem of his wisdom, the chariot was drawn by owls, which, in the ancient Hebran fuperstition, were feared to Minerva. His statue, which was placed in the citadel of Antwerp, was the workmanship of Jockeying, a German artifi, the most celebrated sculptor of the age, and afforded a still more striking display of his vanity and arrogance. He was represented trampling under his feet the figure of a monster, having certain emblematical signs in different parts, which denoted the petition which had been presented to the Dukes of Parma, the compromif, and the insurrection and tumults which ensued. The base of the figure was a square pillar of marble, with the name of the artifi on one side, and with emblems on the Duke of Alva on the three other sides, who is said to have extinguished hereby and rebellion, to have faved the church from deftruction, and restored justice and tranquillity to the Netherlands.

We learn from Grotius, that about this time the duke enacted several useful regulations with regard to trade, the coin, and the liberty of the pref: but they failed in promoting the purposes for which they were intended, and the memory of them was soon effaced by the violence of the measures which he afterwards pursued. He devoted the interval of leisure which he now enjoyed to various acts of tyranny; and to the accomplishment of his schemes for reducing all the provinces to total slavery, and extirpating the reformed religion; and the executioner was fully employed in removing all those friends of freedom whom the sword had spared. The emigrations from the Low Countries were, in consequence of Alva’s violent and cruel measures, very numerous; and of those persons who were exiles many came over to England, where they were all received by queen Elizabeth. In this country they enjoyed the free exercise of their religion; and amply recompensed the English for the protection that was afforded them by introducing various branches of manufacture, with which they had been before unacquainted. Alva’s vanity was flattered about this time by an embassy which was depu- ted by the pope, to present him with a consecrated hat and sword; and he was thus confirmed and encouraged in the prosecution of those fanatical measures, which had procured him this distinguished honour. But such were the absurdity and folly, as well as the oppression and tyranny, into which his arrogance betrayed him, that he adopted a measure which may be regarded as the chief cause of all the difficulties which he afterwards encountered, and of all those astonishing exertions which the people made to emancipate themselves from the Spanish yoke. Heads of the rights and privileges of the people, who had been accustomed to be taxed by their own princes, he resolved, by his own authority, to establish numerous and burdensome taxes, sufficient not only for supplying his present exigencies, but to serve as a perpetual fund for defraying all the expenses of his government. These taxes, by their number, and by the mode of their imposition and enforcement, excited universal discontent. The Isles assembled and remonstrated; but Alva was not only deaf to remonstrance, but determined, after some temporizing measures, to employ force for rendering effectual his arbitrary requisitions. The Isles of Utrecht were resolute and firm in their opposition, and though they incurred a confutation of their territory and revenues, their conduct was attended with the most important consequences, and produced a more general reluctance to the taxes which the governor imposed. In the mean while the prince of Orange was not an unconsidered spectator of these transactions. Having returned from France, in 1569, to his country of Nassau in Germany, he commenced preparations for trying his fortune once more against the Spaniards. The Isles also, who had left the country on account of the persecution of Alva, united, and fitted out a great number of armed vessels with which they feized all the Spanish ships which they could meet with on the Flemish or English coast. Alva persevered in infusing edicts for the payment of exorbitant taxes; and, in order to intimidate the people into compliance, he formed the barbarous resolution of putting to death, before their own houses, 17 of the principal inhabitants of Bruxelles. But before the time fixed for their execution, a messenger arrived with information that the exiles had made a defiance on the island of Vorn, and got possession of the Brille. This intelligence alarmed Alva, and induced him to revoke his bloody orders, and to suspend, for a time, the levying of taxes. An order had been issued by queen Elizabeth, in compliance with the request of Alva, that all ships, belonging to such of the inhabitants of the Low Countries, as had withdrawn their allegiance from the king of Spain, should leave her harbours. This order was an occasion of triumph to Alva, but, in the issue it contributed to the vigorous exertions of the exiles, to the capture of the Brille, and to that union under the prince of Orange, which laid the foundation of the independence of the United Provinces. The spirit of resistance and revolt which was spreading through the country was much encouraged by the defeat of the Spanish fleet under Medina-Celi, in 1572, and by the supply of money and military stores which the exiles found on board the ships that were taken. The revolt in North Holland became general; Muns, the capital of Haarlem, and one of the most populous and flourishing cities in the Low Countries, was taken by Count Lewis; the Spanish army was employed in endeavouring to recover it; the people of Holland and Zealand were industriously securing themselves, by every precaution and preparation in their power, from being again reduced under the Spanish yoke. In contempt of the order issued by Alva, for an assembly of the States at the Hague, a meeting was held at Dort, and it was determined to acknowledge the prince of Orange as the only lawful governor or Stadtholder of the provinces, and commander in chief of all their forces both by sea and land: and every possible exertion was made to furnish him with necessary supplies. Whilst the prince and the States were employed in providing for the security of Holland, Frederic de Toledo was making rapid progrès in reducing the towns which had revolted in the other provinces; but
but his progress was marked by various acts of oppression and cruelty, of so horrid a nature as to be scarcely credible, if they were not well authenticated by the most unexceptionable testimony. But the perversity of cruelty of Alva and his son, after the siege and capture of Haarlem, exceeded, if possible, in atrocity every other measure of this savage administration. By the lowest computation, 900 brave men were executed, with every circumstane of igno-
miny and barbarity, like the vilest malefactors, who, trut-
ing to Toledo's promise, had surrendered their arms to throw themselves upon his mercy. The consequence, however, of the length of this siege and of the loss of men sustained by it, was a mutiny among the Spanish troops; and it was with difficulty, and after much negotiation, that they were induced to march against Alkmaar. Here they met with a repulse, attended with great losses, and Frederic was obliged reluctantly to retire. Alva's fleet was, about the same time, defeated by the Zealanders, and the town of Gertruydenburg surprised by the prince of Orange. Alva, dispirited by these events, and declining in his health, by the anxiety and fatigue he had undergone, solicited a recall, and obtained Philip's leave to quit the Netherlands, and to return home. Philip, diffident of the success of the cruel measures that had hitherto been pursued, and deter-
mimed to try the effect of a milder administration, comple-
ted the more readily with Alva's request. Accordingly, in December 1573, the duke and his son set out, by the way of Germany and Italy, for Spain; after having resigned the regency to his successor Requesens, who commenced his administration with demolishing Alva's statue at Antwerp, and with repressing the insurrection of certain garrisons, at whose enormities his predecessors had connived.

In the review of Alva's administration we may observe, that both the catholics and protestants regarded him as the chief source of all the calamities in which the Netherlands had been involved. He had received his government from the duchess of Parma, in a state of perfect tranquillity. By his tyranny he had thrown it into the most terrible con-
bustion, and kindled the flames of a destructive war, which he was conscious of being unable to extinguish, and he had, therefore, applied for liberty to retire. He is said to have boasted to Count Konigstein, uncle to the Prince of Orange, at whose house he lodged on his way to Italy, that, during his government of five years and an half, he had confiscated more than 18,000 heretics to the public executioner; besides a much greater number whom he had put to the sword, in the towns which he took, and in the field of battle. During Alva's administration, the situation of the Low Countries was truly deplorable. His oppression was not confined to protestants, but many catholics were put to death, and their effects forfeited, under a pretence of their having entertained heretics, or having held a cor-
respondence with them in their exile. Wives were punished with the utmost severity for affording shelter to their husbands, whom the council of tumults had condemned; children for performing the like offices to their parents; and in Utrecht, a father was executed for allowing his son, who had returned from banishment, to lodge under his roof for one night. By forcing so many thousands of the most industrious inhabitants to leave the country, and by neglecting to provide a naval force to oppose the exiles at sea, commerce was almost entirely ruined; notwithstanding which, he imposed upon the people more oppressive taxes, than they could have borne, if they had been in the most flourishing condition. In levying these taxes, the utmost rigour was employed. The people were often wantonly provoked, and tumults purposely excited, from which occa-
sion was taken to punish them with confiscation of their goods, and sometimes with both death and confiscation.

From the confiscations and taxes large sums were raised: yet, by maintaining so numerous an army, and by lodging atolls to keep the principal towns in awe, as he received little assistance from the king, who was engaged in other expensive enterprises, he fell behind in the payment of his troops; and in order to keep them in good humour, he permitted them to live at free quarters upon the inhabitants, against whom they exercised, on many occasions, the most cruel and oppressive capacity.

Alva, after his return to Spain, enjoyed for some time the favour and confidence of his master; but his son Don Garcia de Toledo, having debarred one of the maids of ho-

but, under a promise of marriage, was put under arrest, and still by his father in making his escape. Alva, in order effectually to prevent the fulfilment of his obligations, enforced by the king's order, concluded a marriage between him and his cousin, a daughter of the Marquis of Villena. Upon this Alva was banished from court, and confined to the castle of Uzeda. Here, notwithstanding many intercexfsions in his favour by the pope, and some foreign princes, he remained for two years. But when Don Antonio assumed the crown of Portugal, Philip made preparations for oppo-
ing him; and devolved on Alva the supreme command in Portugal, without forgiving his offence or admitting him into his presence. Alva, notwithstanding his age and infirmities, accepted the command; repaired to the army in 1580, defeated Antonio, and reduced the whole kingdom of Portugal to Philip's authority. When Lisbon was taken, the suburbs, which were at that time no less considerable than the town itself, were delivered up to be ransacked and plundered by the soldiers, without any distinction between the friends and the enemies of the king. When Alva was required to give an account of the treasure which he had acquired on this occasion, he is said to have replied: "If the king asks me for an account, I will flate to him kings-
doms preserved or conquered, signal victories, successful sieges, and 60 years' service." Philip made no further in-
quiries; but Alva did not live to enjoy the honours and emoluments resulting from this last exploit. He died in 1582, at the age of 75 years. Robertson's Hist. of Charles V. vol. iii. and iv. Watson's History of Philip II. of Spain, vol. i. and ii.

ALVACA, in Ancient Geography, a town of Media, according to Ptolemy.

ALVAH, the wood wherewith Moses sweetened the waters of Marah. Exod. ch. xvi. ver. 25.

The name of this wood is not found in Scripture, but the Mahometans give it that of alwah, and pretend to trace its history from the patriarchs before the flood. Josephus, on the contrary, says, that Moses used the wood which he found next lying before him.

ALVALADE, in Geography, a small town of Portu-
gal, in Alentejo, situate between two rivers, and contain-
ing about 1200 inhabitants.

ALVANIS, in Ancient Geography, a town of Mesopota-

mia, according to Ptolemy.

ALVANNA, in Geography, a town of Spain, in the pro-
vince of Guipuscoa, three leagues east of Tre-
vigio.

ALVAR, a town of Hindustan, in the country of Mewat, 60 miles south south-west of Delhi.

ALVARA MARTENS BAY, is situated on the coast of Loango, in Africa, in S. lat. 3°, and E. long. 11°. This bay
small town of Portugal, in the province of Beira, containing one parish, and near 1000 inhabitants.

**ALUCITE**, in Entomology, a subdivision of insects, with digitated wings, belonging to the genus of *Phalaena*, and of the *Lychninae* order in the Lepidoptera system: comprehending 12 species.

**ALUCO**, *facet owl*, in Ornithology, a species of the owl, or strix, with rufly head, black irides, and the primary wing-quills serrated at the edges. This species, the *La Hublotte* of Buffon, the *Ullula of* Genn. and Aldr. the black owl of Albania, and the brown owl of Pennant and Lewin, is 15 inches long; its head is large and rounded, without tufts, and face fink, as it were, within the plumage; the beak of a yellow or greenish white; the upper part of the body of a deep iron grey, mottled with black and white spots, the under part white, with longitudinal and transverse black spots or bars; and the legs white, sprinkled with black points. It flies lightly, and not ruffling with its wings. The outmost feather of the wing is two or three inches shorter than the second, and this shorter than the third; and the longest of all are the fourth and fifth. Its cry is a kind of howl, resembling that of wolves, whence its name *ullula*, and the German *bulb*, or *boo-boo*. It inhabits Europe and Tartary, and is said to be considered as sacred by the Cains, for having contributed to preserve the life of their great monarch, Jinglis Khan, though Mr. Pennant attributes this to another species. In Summer it lodges in the hollows of decayed trees in the woods, and in Winter approaches human habitations. Its most usual prey is field-mice, which it swallows whole. It generally lays four eggs, of a dirty grey colour, in the nests of other birds, such as buzzards, bulfills, crows, and magpies. Gmelin's *Linn. Buffon's Birds*, vol. i. p. 297.

**ALUDE**, or *Allyda*, in Ancient Geography, a town of Aia Minor, in Phrygia Major, upon the confines of Lydia.

**ALUDEL**, *Aludel*, Fr.—Sublimirtopfe, Germ.—*Aludelle*, Ital.—*Capizziello sublimatorio*, Lat. The aludel of the chemists is a kind of pot or cucurbit, generally made of earthen ware, but sometimes of glass, open at both boards for the purpose of collecting the products of dry sublimations. The matal or cucurbit, containing the sublimations to be sublimed being fixed in a sand bath, is covered with an aludel, so disposed as that the neck of the cucurbit may be received into the body of the aludel, this again is covered in like manner with another aludel, and so on increasing the fers according to the volatility of the sublimates operated upon.
on, the neck of the upper alveol being either flopped with a cork or covered with an imperforated capital. See Chemistry, Plate iii. fig. 14. A, the cucumber, B, a series of alveols, C, the capital. It was in an apparatus of this kind, that those crystalline sublimates formerly called florez, as flowers of sulphur, of scutellum, of Benuza, &c. used to be prepared, when each chemist and druggist manufactured these articles for his own use: but since the shops have been supplied for the most part from large wholesale laboratories, the alveol, together with various other vessels, has been discarded, and its place supplied by apparatus of more simplicity and greater expedition.

ALVEARE, in Conchology, a species of TROCHUS, with a pleated nodulose shell, flattened transversely, and adorned with bands of concentric points, funnel-shaped umbilicus, and crenulated columnella. It is found in India: the shell is coloured with a mixture of green and white, within pearly, and finely annulated.

ALVEARIUM, in Anatomy, the bottom of the concha, or hollow of the auricle, or outer ear.

The alvearium auriculae is a cavity, terminating at the meatus auditubus, wherein that bitter yellowish excrement is collected called cerumen, or ear-wax.

ALVEARUM also signifies a bee-hive.

The word is formed of alveus, a channel, or cavity; in allusion to the alveoli, or cells, in bee-hives.

Some of the ancients use also the word alvearium for a bee-hive, more usually called among us apiary.

ALVEARIUM is sometimes also used figuratively, to denote a collection.

In which sense, alvearium amounts to much the same with what we otherwise call thorax, coracina, or the like. Vine. Dorcas has published an alvearium of law.

ALVEAREZIT, among Aramn Writers, denotes what we ordinarily call falling-fors, or star-shot.

ALVENSELEN, in Geography, a bullaile of Magdeburg, in Germany.

ALVEOLATE, in Botany, a term used in the same sense with favolus, or honey-combed, to express a part that is surroved by oblong deflections.

ALVEOLI, in Anatomy, those little sockets in the jaws wherein the teeth are set.

The alveoli are lined with a membrane of exquisite sensibility, which seems to be nervous, and is wrapt about the roots of each tooth; from whence, and from the nerve, proceeds that pain called odontalgia, or tooth-ach. Of these alveoli there are usually fifteen in each jaw.

ALVEOLI is more especially used, among Naturalists, for those waxen cells in the combs of bees, wherein their honey is deposited.

ALVEOLUS, Nautilis Orthoceras of the Linnaean fyllem, in Natural History, the name of a marine body, found frequently follices, sometimes lodged in the cavity at the end of the belemnite, and sometimes loose; and in this last case, often so large, that we cannot suppose any belemnite ever to have existed so large as to have been able to contain it. We do not meet with these at this day in their recent state, but what we find of them follices are ever large at one end, and tapering to a point at the other, and are composed of several hemispheric cells, like so many bee-hives jointed into one another, and having a spheumulus, or pipe of communication, like that in the thick new bursts. These are sometimes found perfect and whole, but much more frequently truncated, or wanting a part of their smaller end.

Klein.

ALVERD, in Geography, a town of Scythia, in the province of Taberian, 20 leagues south-south-west of Ferabad.

Vol. I.

ALVERNO, a mountain of Italy, in the duchy of Tarentum, 10 miles north of Borgo San Sepolcro.

ALVERON, a small town of Portugal in Estremadura, containing, within a district of one parish, about 400 houses, two leagues from Lisbon.

ALVUSEN, in Botany, a name used by some for the palmaeum, or by-fern.

ALVUS properly denotes a channel.

ALVUS is applied, by some, to the tunnel between allies arising from the receptaculum eglit under the diaphragm.

ALVUS is also used in Antiquity, to denote a small vessel, or boat, made out of the trunk of a single tree, by boring or cutting it hollow.

Such was that wherein Romulus and Remus are said to have been exposed.

ALVIDONA, in Geography, a small place of Naples, in Calabria Citera, nine miles north-east of Cutilano.

ALVIDUCA, compounding of alveus and duca, I draw, or openers of the belly, in the Mattea Medico, a term used by some writers for laxative or purgative medicines.

ALVIGNANO, in Geography, a town of Naples, in the country of Lavora, 10 miles east of Capua.

ALVITO, a town of Naples, in the country of Lavora, six miles east of Sora.

Alvito is also a small town of Portugal, in the province of Alentejo, containing about 2000 inhabitants, and a barony.

ALULA nasa feu furia, bastard or spurious wings, in Ornithology, is a kind of appendage to the true principal wing, placed near its outer extremity, at the base of the primary quill-feathers, and consist of three to five small feathers of the quill kind.

ALUM, of use, in Mineralogy. Under this head we include all those minerals which either contain alum ready formed, or are capable of yielding this salt by the process of manufacture. They may be conveniently divided into three families. 1. The saline, all the species which are almost wholly soluble in water; 2. The earthy-saline, in which the soluble particles are diffused through a large proportion of earth; 3. The earthy, which containing no alum, but only the materials of it, are insoluble and definite of that sweetish alluring taste, which is characteristic of the two former.

I. Family—Saline. Tafle aluminous, almost wholly soluble in water.

Species 1. Capillary alum.—Vitriolum balatricium, Werner.

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I. Family—Saline. Table aluminous, almost wholly soluble in water.

Species 1. Capillary alum.—Vitriolum balatricium, Werner.
Species 2. Plume alum.—Alumen nativum f. plumosum, Werner.—Naturl. f. fider alum, Germ. Fjöder alum, Sweed.—Fluorartigt alum, Dan. Alum de plume, Fr.

The colour of this substance is yellowish or greyish white. Its external lustre is dull, but sometimes glimmering, or even little-fining. It consists of slender irregular hair-shaped fibres, either single or accumulated, and slightly adherent to each other; it is very brittle or amorphous. It is usually opaque, but sometimes also transparent or semitransparent. It excites the name talc on the tongue as the preceding species.

It is found efflorescing on bituminous schistus at Göttwig in Austria, on grey argillite in Carinthia, in clefts and caverns on Strombol, the Solfataras, the grotto of St. Germaino, Mifeno, and other places in Italy.

In Klaproth's Essays is an analysis of the native alum of Mifeno, from which it appears, that 100 parts yield by simple solution and crystallization 47 of perfect alum, and 29 more by the addition of the necessary quantity of water, the remainder being found with a little feline, and a small trace of oxidised iron.

Species 3. Mountain butter.—Vitriolum alumen butyraceum, Werner.—Bergbutter, Germ.

Its colour is of a more or less dun isabella yellow, or yellowish brown. It occurs amorphous commonly overlaying the surface of aluminous schistus in lumps or clots. Internally it is shining, with a waxy lustre. At first it is very soft, but by exposure to the air it becomes of a middle consistence, between crumbly and compacted, and is then of a faint shivery fracture. Its fragments are indeterminate, blunt. Its distinct concretions are small and fine granular. It is transparent on the edges, and slightly elastic; feels somewhat unctuous, and leaves on the tongue an acadly sweetish astringent taste.

It occurs in many places where the aluminous schistus is plentiful, and exposed to the air, as at Mufkaw in the Oberlanitz: is also found in Siberia.

It has not yet been analysed, but probably differs from the preceding, in containing a larger proportion of clay and iron ochre.

II. Family. Earthy-saline. Talc aluminous, very little soluble in water. All the ores that belong to the third family are occasionally found to have undergone a natural change, similar to what is produced in them by art at the alum manufactories; in consequence of which they often yield, by lixiviation, a variable proportion of alum, and exhibit the sweetish astringent taste peculiar to this salt.

1. Upon the purely sulphurous ores or alum-flone with its varieties, this alteration seems to take place by the action of subterranean fire: alum is also probably formed in more earthy compounds of fex and alumina, that contain no sulphur when they overlie heated sulphureous strata, by which they are first cracked and then penetrated with sulphureous acid vapours. Examples of both these occur in Italy at La Tolfa, not far from Civita Vecchia, and the Solfataras in the Neapolitan dominions; from 100 parts of which Bergman obtained by mere lixiviation eight parts of perfect alum. 2. The well known property of pyritous and pyrite-sulphurous materials to heat, and afford vitriolic salts by the combined action of air and moisture, may also be traced, though in a fainter degree, in the aluminous ores of this derivation; hence it is that the upper strata of the softer aluminous schistus, of the alum earth, and the sulphureous peats are occasionally impregnated with alum. The marly black soil of Arragon, that yields pure alum by lixiviation (Bowles's Spain, p. 388.), appears to be of this kind; also the aluminous turf of Helsanbarg in Scania (Bergm. Hist. vol. i. 353.) and a vein of black earth in the Shetland islands, containing alum and sulphated iron. Alum is also extracted from fossil wood in Helle, (Vogel, p. 322.) Springs in the neighbourhood of these strata sometimes hold a little alum in solution, as those near Halle (Chym. Ann. 1788, p. 224.)

Family III. Earthy.—no aluminous taste—not soluble in water.


Alum-flone is greyish or yellowish white, isabella yellow, or light smoke grey; amorphous. Its internal lustre is dull, feldspar glimmering. Its fracture uneven, splintery. Fragments indeterminately sharp-cornered. It has distinct corynthoidal concretions, which might be mistaken for a fine fibrefil texture. It is slightly transparent at the edges. Is half-hard paffing into hard. Brittle, infipid, feels meagre; and adheres slightly to the tongue.

Its fp. grav. according to Kirwan, is 2.424. It has an earthy smell, and when projected on a hot red iron it illices and gives out a black smoke, a light sulphureous smell, and the residue acquires a reddish colour. According to Monnet's analysis, it consists of sulphur and clay, in nearly equal proportions, together with a little iron and potash. Bergman found it to contain about 43 sulphur and inflammable matter, 35 alumine, and 22 siliceous.

It is found in mafles and veins running through argillaceous rocks at La Tolfa, in the strates of the church, and in the ore from which the Roman alum is prepared. A volcanic origin has been generally attributed to it, but apparently without reason, as the veins of La Tolfa have been traced into the Apennines. It was formerly suppos'd to be mafly calcareous, as evident from the fynions quoted above.

La Metherie (Theorie de la Terre, vol. ii. p. 215.) has hazarded an opinion that it is principally alum superfluatuated with alumine, and therefore earthy and infibulous. This is a notion which derives high probability from the recent analysis of this ore, by Vauquelin (An. de Chem. vol. xxii. p. 275,) who obtained from it

<table>
<thead>
<tr>
<th>Substance</th>
<th>Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alumine</td>
<td>43.92</td>
</tr>
<tr>
<td>Sulphuric acid</td>
<td>25.</td>
</tr>
<tr>
<td>Potash</td>
<td>3.08</td>
</tr>
<tr>
<td>Water</td>
<td>4.0</td>
</tr>
<tr>
<td>Silex</td>
<td>24.0</td>
</tr>
</tbody>
</table>

100.00

A similar kind of ore has been discovered in rocks near Poliowire in Brittany.


Of this there are two varieties.


Its colour is bluish black, sometimes greyish black. Amorphous, or in concentric balls imbedded in the strata. Its internal lustre is glimmering, or dull. Fracture flat or curved flatly. It flies when broken into broad thivers, or trapcoidal fragments. Gives a grey streak; feels rather smooth but meagre. Is soft, brittle, and but little elastic.

Var. 2. Shining alum-flone. — Glanzender alunatschiefer, Germ.—Argilla aluminaris fribulata nitida, Werner.
It is of a bluish black colour, generally passing into the iron black—occurs amorphous, in large flatis. The lute of its parallel fracture is shining or even brightly shining, with a lute between common and vegetable; that of its 
crofs fracture is dull, or at most glimmering. Fracture 
thick and curved flaty, seldom thin flaty. Its fragments 
therefore are sometimes thick and sometimes thin flivery. It feels smooth; is half hard; brittle; and but little elastic.

Both varieties are found in Norway, at Whityn in England, in Sweden, in Saxony, and various other provinces in 
Germany. The alun of Great Britain and the north of 
Europe is almost entirely made of it, for which use the second 
variety is said to be the best adapted. It commonly 
occurs in the neighbourhood of coal, and seems to differ 
in no respect from the bituminous shale impregnated with 
pyrites.

Species 6. Alum-earth—Periwinkle clay, alum earth 
Germ.—Argilla aluminaria bituminosa, Werner. 
Allan yard, Sweet—Terre aluminieuse, Fr— 
Timfs fold, Hung.

It has a light or dark blackish brown, brownish black, 
or blackish grey colour. Occurs in large strata of earthy 
or irregularly flaty masses. It is generally dull, but when 
containing scattered particles of metal, becomes occasionally 
glimmering. Its fracture is between compact earthy and 
imperfectly flaty. Its fragments are partly flaky and partly 
irregularly blunted cornered. Its flake has a feeble luster. 
It is very soft, and may be rubbed to powder between the 
fingers; is brittle, and of very little elastic.

When placed among burning coals, it generally blazes a 
little; and when moistened and exposed to the air in 
large quantities, it heats and not unfrequently inflames. 
From 100 parts of it, after torrefaction, Klaproth obtained 
the alun, 7.25 sulphate of iron, 2.25 sulphated lime, and 1 
sulphated magnesia.

It is found in alluvial and secondary flaty, and is intimiate 
ly connected with bituminous wood, alum flaty, and 
coal flaty. Is used in the manufacture of alum in 
Germany.

Lenz, Versuch der Mineralien.—Widenman, handbuch 
der Mineralogie.—Lametherie, Theorie de la terre.—Berg 
man's Essays.—Klaproth's analytical Essays.—Kirwan's 
Mineralogy.

ALUM, Manufacture of.

In order to appreciate rightly the peculiar advantages or 
disadvantages of the several methods of manufacturing this 
fatt, it will be necessary to enter into a previous enquiry concerning 
the nature and proportions of its elements, and the 
different chemical varieties of alun, which have hitherto 
been confounded under the same name.

§ 1. Analysis and Composition of Alum.

The identity of the earthy base of alun with pure clay, 
was first ascertained by Geoffroy and Hellot, and the suc 
cessive experiments of Pott, Margraaff, and Macquer, upon 
the same subject, put an end to the controversy concerning 
the nature of aluminous earth, which has ever since been 
universally received as the same with pure clay or alumine, 
according to the reformed nomenclature. The acid in 
alun has always been considered as the sulphuric, and the 
only question among chemists on this head is whether the 
acid is necessarily in excess. A solution of alun redhens 
litmus paper, and exhibits other properties of an uncombined 
acid; but on the other hand it is contended by 
Morveau, that crystallization and edulcoration would effectu 
ally separate any such excess, and therefore that the change 
of vegetable colours is not an unequivocal proof of super-
abundant acid. Referring the consideration of this and similar 
cases till we come to treat of the article saturation, it 
is sufficient to observe here, as indeed Bergman has clearly 
shown, that the acid exists in alun with two very different 
degrees of affinity. By the action of iron filings on a solu-
tion of alun, all the signs of uncombined or loosely adher-
ing acid are destroyed, sulphated iron is produced, and a 
white earthy precipitate takes place, consisting of the alun 
depoly than a small portion of its acid, but full retaining 
the greater part, as may be proved by the further decom-
position of it by a caustic alkali; and to this superabun-
dant or roughly combined acid, is entirely owing the table, 
the solubility; and most of the other external characters of 
the salt.

The component parts of alun, according to Bergman, 
are 58 sulphuric acid, 18 alumine, and 44 water of crystal-
lization. Observing, however, that those solutions, which 
contained a great excess of sulphuric acid could not be 
employed to crystallization by the addition of lime, soda or 
barites; but only by means of potash or ammonia; finding 
also sulphate of potash in many species of alun, he appears 
often induced to believe that the alun of commerce is a triple 
full of confounding of sulphuric acid, alumine and potash.

The subject remained in this state of uncertainty till it came under 
the notice of the most eminent analysts of modern times, the 
accurate and indefatigable Vauquelin, to whose admirable 
Memorials on the combinations of alumine with sulphuric acid, 
we are indebted for the final illustration of a question of equal 
importance to the chemist and manufacturer.

Lorder to ascertain the component parts of alun, and to 
determine the necessity and peculiar agency of alkalines in 
it preparation, he dissolved in pure sulphuric acid some alu-
mine equally pure; the solution was evaporated several 
times to dryness to drive off the excess of acid, and the dry 
and pulverulent residue being then re-dissolved in water, was 
brought by evaporation to various states of specific gravity 
for the purpose of crystallization; but, notwithstanding every 
precipitation, a soft mass, consisting of crystalline flakes, was 
all that could be procured. The solution, which had thus 
constantly refused of itself to afford crystallized alun, began 
to deposit some immediately on the addition of a few drops 
of potash, and by gradually adding the alkali, drop by drop 
as the deposition of alun ceased, the whole was converted 
into pure alun, without the smallest mixture of sulphated 
potash.

Another portion of the same pure aluminous sulphat was 
mixed with carbonated soda, but without obtaining any cry-
flats. Nor were lime or barites more efficacious.

Hence it appears plainly that the use of potash is not 
merely to engage the excess of acid, otherwise, soda, barites 
and lime, ought to have produced the same effect. Again, 
if potash and ammonia unite only to the superabundant acid, 
the sulphate of potash and ammonia should occasion no change 
in the pure aluminous sulphat; but, on the contrary, if they 
form an essential constituent part of alun, then they should 
produce the same effects when combined with sulphuric acid, as 
when pure. To ascertain this, a solution of sulphated 
alumine was mixed with a few drops of sulphat of 
potash, the immediate effect of which was the production of octahedr 
aline crystals of alun. Sulphate of ammonia produced the 
same result.

It might still, perhaps, be objected, that the action of these 
alkalis, as they are remarkably greedy of sulphuric acid, deter-
ned the crystallization of the alun, by the simple assem-
In order to determine this, some uncertainly crystallizable aluminae fulvus was mixed with acidous fulvus of potash, and afforded as great an abundance of alum as when the neutral fulvus of potash was made use of. Hence, no doubt can remain concerning the influence and particular mode of action exercised by potash and ammonia in the manufacture of alum.

The experiments of Bergman and of several other chemists ascertained, that when a solution of common alum is boiled with a quantity of pure alumine, this last combines with it, and forms a peculiar salt insoluble in water, known by the name of neutral aluminae fulvus, or alum saturated with its own earth. To this fact was added another of equal importance, by Vauquelin, namely, that the earthy salt thus precipitated retains its potash or ammonia, for by digestion in dilute sulphuric acid, it is dissolved, and affords octahedral crystals of alum; it even appears from the memoir of this philosopher quoted above, that the presence of one of the two alkalies is necessary to the formation of this neutralized alum. To an uncertainly crystallizable solution of fulvated aluminae perfectly free from alkali, he added some pure alumine, and found that a part of it was dissolved to the complete saturation of the acid, but that no precipitation took place; having then added a few drops of fulvated of potash, a precipitate was deposited shortly after, possessing all the properties of the foregoing saturated alum. Hence is established the necessity of fulvated potash or ammonia, to enable alum, by combining with a larger proportion of its base, to pass to the earthy flake.

The alum of commerce always contains fulvated of potash either alone or mixed with fulvated ammonia, and as it is often of consequence to the manufacturer to know the absolute and relative proportions of these salts, the following method of analysis may be had recourse to. First, let a small piece of the alum be reduced to powder, and mingled with a solution of caustic potash in sufficient quantity to decompose it entirely; if then, upon gently heating, it gives out an ammoniacal odour, as is generally the case, this indicates the presence of fulvated ammonia. Having obtained this indication, let two or three hundred grains of the alum be dissolved in distilled water and put into a tubulated retort, and then add quick-lime, equal in weight to the salt; by making this mixture boil for about twenty minutes, the whole of the ammonia will be expelled, and may be condensed by cold water in the receiver, or a Woufle's apparatus: this ammoniacal liquor, being then carefully saturated with sulphuric acid and crystallized, will show the quantity of fulvated ammonia. The residue in the retort being mixed with warm water and filtered, a clear liquor will be obtained, containing the fulvated of potash, with some felsmite; this latter will be precipitated by boiling and evaporation, and the remaining fluid will then deposit the fulvated of potash in a crystalline form. When the previous assay does not indicate the presence of ammonia, the alum is to be decomposed by caustic ammonia, the precipitate is to be well washed, and the liquors being added together, are to be gently evaporated to dryness; the salt thus obtained is to be heated in a crucible till it leaves behind exhalation fulvuses of ammoniacal fulvus, and the residue is fulvus of potash.

§ 2. Manufacture of Alum from the earthy ore. The only place where this kind of ore is found in sufficient abundance to be worth working, is at the Solfatara, a few miles from Naples. The Solfatara, called by the ancients Forum Vulcani, Campi Leuogesti, is a small plain, at the top of a hill, covered with a white soil, and exhaling fulphurous vapours which, during the night, emit a pale blue lambent light: the ground, even at the surface, is considerably warm, proceeding, no doubt, from subterranean fire. It has continued in nearly the same state from the age of Pliny to the present time, and is celebrated by this author in his Natural History (lib. xxxv, ch. 50.) for its fulphur, but not for its alum, as the Abbé Mazenas affirms. On the contrary, by his omission of the Campi Leuogesti, when mentioning the various places from which alum was then procured, it is plain that the establishment of the alum works of the Solfatara is of more recent origin. The white clayey soil of this plain, being constantly penetrated by fulphurous vapours, and the exhalations during the night being for the most part mixed with the dew, and thus returned upon the surface, cause it to be covered with a light fulphureous efflorescence. This, together with the earth to which it adheres, is daily collected and distributed into hauen cauldrons, so as to fill about two-thirds of their capacity; water is then added, till it stands about three or four inches above the surface of the clay, and this, in a few hours, by the assistance of the natural heat of the ground in which the cauldrons are set almost up to the brim, extracts the alum diffused through the clay, and deposits it in rough crystals on its surface. These crystals being taken out and wafted in the mother liquor, are put with fresh water into other boilers, and again diffused as before, by the natural heat of the ground; the solution is then run through a filter into large wooden coolers, and in a day or two affords a large quantity of pure colourless crys-

§ 3. Manufacture of Alum from alum-flint. It is at La Tolfa, not far from Civita Vecchia, in the Roman flat, that the manufacture of alum from this species of ore is principally carried on. All the alum known in commerce by the name of Roman alum is thus prepared, as well as the Levant or Smyrna alum.

The ore of La Tolfa forms veins of considerable hardness, which are separated by means of blaffing from the rest of the rock; the pieces thus obtained are brought to the caleining oven, which is merely a hole dug in a side garden, four or five feet in diameter, and from five to six in depth, with a lateral gallery, communicating with the open air, and the bottom of the furnace. The bottom being covered with faggots of brush-wood, the pieces of ore are skilfully laid over them, so as to form a kind of hollow vault, between the interllices of which is an ample passage for the smoke. As soon as the fire is kindled and the flame begins to appear between the flomes, a workman is at hand to regulate the combustion, that it may be neither too great nor too feeble; in the course of from three to five hours the smoke begins to decrease, and the fire burns brightly; this is allowed to go on till the flome of burning sulphur begins to be prevalent, which is a sign that the ore is sufficiently roasted. The fire is now raked out, and the flomes are left to cool. The sign of this fire proceeding well conducted, is, that
the ore has now acquired the sweetish astringent tace of alum.

The second process begins by piling the calcined flakes in long beds, on a sloping floor, the lower side of which is terminated by a ditch of water, extending along its whole length; from this ditch the beds are frequently sprinkled, and the water draining from them return again into the reservoir. In about a fortnight the flakes begin to crack and break down, and are at length, in forty days, more or less, overspread with a reddish efflorescence, and reduced into a kind of paste. A leaden boiler is now half filled with water, and when hot, fresh portions of the prepared ore are continually poured in till a solution of sufficient strength is procured; the liquor as yet turbid is drawn off into another boiler, where it is subjected to a very gentle evaporation, at the same time that it becomes clear by the deposition of its earth. Having arrived at the point of crystallization, it is transferred by means of a pipe into a square wooden vessel, eight feet high by five wide. It is constructed as to be readily taken to pieces; after remaining here for a few days, the mother water is poured out, to be boiled again with fresh alum ore in the first cauldron, and the crystalline, when dried, are ready for sale.

From this account of the process, by an eye-witness (the Abbé Mazzea), it would appear that no potash or ammonia is added to the liquamen; it follows, therefore, that one or both these alcalies must be found in the ore, and this is actually the case, according to the analysis, by Vauquelin, already quoted in the preceding article.

The nature of this ore has been long misunderstood, as well as the rationale of its manufacture, and the analyses of it undertaken by Bergman and Monnet, have only served to perpetuate the error. Both these chemists found a large proportion of sulphur in it, while Vauquelin finds only fulphoric acid; this apparent contradiction, however, may easily be reconciled, by considering that the ore contains carbonaceous matter enough to blacken it, and to give out a light flame when powdered and spread on a hot iron; hence, if the analyses of Bergman and Monnet were begun by distillation, in a close retort, as it probably was, the decomposition of the acid and production of sulphur is readily accounted for.

Admitting then the proportions of this ore, as ascertained by Vauquelin, to be sufficiently correct, viz. alumine 43.92; sulphuric acid 25.; potash 3.681; water 14.; the ratio of the latter, 325, it ought to be considered as a native saturated alum, with excess of earth and deficiency of alkali, intimately mixed with fies and inflammable matter. The action of the fire in the roasting is to drive off the inflammable matter, and from the sweet aluminous tace which is thus communicated to the ore, notwithstanding the low volatility of part of its sulphuric acid, it seems also to effect a separation between the alum and the excess of earth. The subsequent cracking and breaking down upon exposure to the air and moisture, is probably caused by the absorption of water of crystallization.

But though a considerable proportion of alum is thus obtained, without the addition of potash, it may be worth while to enquire whether a larger quantity might not be procured by a trifling additional expense. The alum of La Tolfa contains by Vauquelin's analysis 49. fulphat of alumine 43.82; 7. fulphat of potash; 44. water; 160. And according to Kirwan (on the proportion of real acid, 46. 150 parts fulphat of potash are compos'd of 54.8 potash and 35.2 sulpheric acid; and 100 parts of alum 63.75 alumine and 36.25 sulphuric acid. Therefore, the 25 parts sulphuric acid in the ore require 37.4 alumine and 25 potash. But the ore only contains at most 3.68 potash, to that no more than 16 parts of sulphuric acid will be converted into alum; the remaining 9 will be left in combination with alumine in the mother water; and this agrees with the observation of Mazzea, who speaks of an unctuous acid, efflorescent salt being left in the residue of the lixiviated ore.

The 9 parts of acid that are thus left, may, however, be converted into alum, by the addition of 1.44 potash, or about 3. fulphat of potash.

From thes data the ore of La Tolfa ought to yield by the present method of working it 78.5 per cent. of crystallized alum; or by the addition of 3 per cent. fulphat of potash, 125 per cent. of crystallized alum. In this calculation, however, no allowance has been made for the sulphuric acid volatilized in the roasting, and that portion of the salt which cannot be extracted by lixiviation in the large way from the prepared ore; both these circumstances will, no doubt, diminish considerably the produce of alum, but the proportions must vary according much according to the skill and attention of the manufacturer.

§ 4. Manufacture of Alum from the Pyritous ore.

All the European alum, except what is manufactured at Solisata and La Tolfa, as described in the preceding sections, is prepared from the alum lake or alum earth, and these containing only the remote principles of this salt, a much more complicated process is required than where the alum exists ready formed in the ore.

The only necessary ingredients in the pyrite-alumious ores are clay, and pyrites, or sulphuret of iron. Besides these, however, there is generally a variable proportion of bitumen, lime, and magnesia. The black alum is procured from the black micaceous species in which the pyrites is thoroughly disseminated through the mass in such small particles as to be indistinguishable from the rest. Such, however, as contain even large nodules of pyrites, is very capable of being manufactured, much of the Swedish ore being of this kind.

The first thing to be done is to dispose the pyrites to decompose into sulphur of iron, (green vitrual), and this at the manufacture of Flone, in the department of Eure, in France, is brought about by simple exposure of the ore to the action of air and moisture; this ore, however, is of the very best kind, moderately soft, free from bitumen, and with the ingredients well mixed, and even with these advantages, the process requires three years. The more flaky and bituminous kinds, such as those of England and Sweden, are subjected to a previous roasting. For this purpose a layer of billet wood or coke is placed on a floor of rammed clay, and fire set on; upon this are thrown by degrees moderately small pieces of unburnt ore, till a florism is formed, about half a foot in thickness; these presently take fire, by their own bitumen, and are then covered with a florism of nearly the same thickness of ore that has been already roasted and lixiviated; to this succeeds a layer of unburnt ore, and thus alternate layers, eight or nine in number, are gradually added, till the pile is completed. Care is taken by protecting it from heavy rains, and covering those parts exposed to the wind, to keep up the heat of a moderate equable degree till the bitumen being consumed, the fire goes out of itself. If the ore is now examined it will be found to be of a reddish colour, containing a small quantity of sulphuric iron and alumine,
alumine, and in some of the Swedish manufactories is accordingly lixiviated without any further preparation. In the English and German alum-works, however, the roasted ore is watered lightly, and exposed for a greater or less time to the action of the air, by which the sulphur of the pyrites is more completely oxygenated, and in consequence a larger proportion of alum is obtained. In the manufactories of Flone, already mentioned, the singularly judicious practice is observed, of lightly roasting the ore after spontaneous efflorescence.

The acid being thus developed, and in part united to the alumine, the process of lixiviation takes place. For this purpose the ore is thrown into large reservoirs of stone or wood, furnished with a false bottom, to serve the purpose of a filter; water is then poured on, and remains for twenty-four hours or more, in which time it dissolves the greater part of the salts; this being let out by means of a cock fixed nearly level with the bottom of the reservoir, a fresh quantity of water is added, in order to exhaust the ore of all soluble matter. The second lixivium is weaker than the first, but is afterwards concentrated by being used instead of water for the first lixiviation of the next parcel of ore. The water with which the lixiviation is performed is cold, and it might seem at first to be an obvious improvement to make use of boiling water; the experiment has, however, been tried without the desired result, the increased strength of the lixivum not being adequate to the time and expense of fuel. Where the lixivium is kept in large reservoirs, exposed to the weather, much depends on the dryness of the sea son, a few heavy rains weakening the liquor to such a degree, as to add considerably to the cost of boiling down. In Sweden and the northern countries, various attempts have been made to concentrate the liquor by freezing, but the success has not answered expectation; for a saturated solution of alum congeals at nearly the same temperature with common water.

The process of boiling down succeds to that of lixiviation, and is always performed in leaden boilers, copper being for the most part too dear a material, and iron being attended with the inconvenience of decomposing alum. The lixivium is mixed in the boiler with the mother-water of a preceding boiling, and this is done either by filing the boiler with a mixture of mother-water and liquor, and supplying the loss by evaporation with fresh liquor, or by filing the boiler at first with liquor, and supplying the waste by the above mixture. The evaporation lasts from twenty-four to forty-eight hours, according to the proportion of mother-water. In Saxony, where the proportion of mother-water is large, and the lixivium is brought to a high degree of concentration, the boiling continues without interruption for eight days. At the end of these respective periods the specific gravity of the liquor is asayed by a leaden hydrometer, or, with greater exactness, by filling a bottle of known size with the liquor, and then, by weighing it, to ascertain the comparative specific gravity between it and water. This being done, an alkaline solution is added, and the first crystallization is brought about. In the Saxon manufactories, where the liquor is uncommonly concentrated, as soon as the evaporation is finished the contents of the boiler are let out into a reservoir, where they are strongly agitated for half an hour, during which time a certain proportion of soap-makers lees and putrefied urine is added; and the liquor being then let into another vat, the crystals of alum begin immediately to be deposited; at the end of a few days the mother-water is laded out, and the crystals are collected and washed. The method followed in the English works differs somewhat from what is done in the Saxon practice; in thefe, when the liquor appears by the hydrometer to be sufficiently evaporated, the fire is withdrawn from the boiler, and a stream of impure alkaline lixivium, from kelp and soap-maker's ashes, is let into the liquor already in the boiler; at the same time the cock at the bottom of the boiler is turned, so as to allow the contents of it to flow into a reservoir, by which management the two liquors are speedily and effectually mixed. It remains in this reservoir for three hours, during which it deposits an earthy and ferruginous sediment by the action of the alkali, and becomes of a clearer colour; it is now transferred into another large vat, and has its specific gravity again taken, according to which a greater or less quantity of putrid urine is added to lower it to the proper standard; being then agitated briskly for a quarter of an hour it is left at rest, and in the course of five days the crystals are deposited. In some French and Swedish manufactories the liquor, after being boiled down, is merely agitated for some time without adding any alkali, and then passed into the crystallizing tube. The rough alum being washed in order to separate it from the green vitriol which is deposited along with it, is put into a small pan with a little water, and when diffused and boiling hot, some balsams, blood, or other similar substance, is finally added for the purpose of clarification: when this is effected, the liquor is run into caskets, where the crystals are deposited in large masses; after ten or twelve days the mother-water is poured out, and the salt, being then dried, is ready for sale. By keeping in mind the analyses and experiments in § 1. of this article, it is easy to understand the rationale of the manufacture, as well as the advantages and faults of each process. As soon as the pyrites is converted into sulphat of iron, whether by roasting or by spontaneous efflorescence, it begins to be gradually decomposed by the lime and magnesia which may happen to be in the ore, therefore the leaves there is of these two earths, the greater ceteris paribus will be the produce of alum. Clay is incapable of decomposing sulphat of iron; but by exposure to the air, especially when affected by the action of heat, the metal becomes highly oxygenated, and is no longer combinable with the acid which then unites with the clay, as being the substance in the ore of next affinity. Hence arises the advantage of the practice at Flone of roasting the ore after the formation of the sulphat of iron. We have already seen in § 1. that sulphat of alumine, even with excess of earth, is soluble in water, but that it becomes insoluble on the addition of potash; on this account, therefore, coal, which contains little or no potash, is a far preferable fuel for roasting the ore than wood which yields a great deal, as all the alum, thus rendered incapable of extraction by lixiviation, is lost. The bitumen in the ores, however, diminishes the consummation of wood, and the lixivium contains of the sulphats of iron, of alumine, of lime, and magnesia. By long boiling and evaporation the iron becomes so far oxygenated, that the addition of an alkali will decompose the sulphat of iron, rather than the sulphat of alumine. If the alkali is ever in little excess, the aluminoj sulphat will be the next decomposed; this is therefore to be carefully avoided. Nor is the kind of alkali a matter of indifference, for since only ammon and potash are capable of forming crystallizable alum, it would appear that the use of soda in the English manufactories might be advantageously superseded by potash; indeed the chief use of the kelp seems to consist in the potash which this impure soda contains. The principal thing to be attended to in the boilling down is to bring the liquor to such a degree of concentration, that the alum shall be deposited with as little as possible of the other fats.

The mother-water, when thrown away, holds in solution sulphats of potash or soda, and sulphat of magnesia, the extraction of which was made the subject of one of Lord Dun-
donald's patents, but we believe the profits have not yet answered the expence.

The nature of alum, and consequently the true theory of its manufacture, has only been known since the publication of Vauquelin's excellent memoir on the subject in the Annales de Chimie; it is not surprising, therefore, that all the long-established processes should be more or less defective. Perhaps the following method would be found to combine more advantages, and be subject to fewer inconveniences than any which has been hitherto put into practice. The ore should be first lightly roasted with coal to drive off the bitumen, and forward the decomposition of the pyrites, which may be further accelerated by moderate waterings, and exposure of fresh surfaces to the action of the air. When saline efflorescences appear at the top of the heaps of ore, and their interior, upon being dug up, also fumic punctured with white saline particles, let the ore be disposed in alternate plates with coal, and again roasted, so as to decompose as much as possible of the sulphated iron, and combine the acid with the clay; the flower and more gently this process can be carried on, the more completely will its object be answered. The lixivium obtained from this roasted ore will consist chiefly of sulphated alumine, nearly satured with earth, but, on account of the abundance of potash, perfectly soluble. By the subsequent boiling and agitating, part of the sulphat of iron would be decomposed, and this oxidation of the iron might perhaps be still further effected, by pouring the liquor through heaps of faggots, exposed to the wind, as is done in the house of graduation for brine in France and Germany. The ferruginus and felenitic sediments being now allowed to settle, the clear liquor ought to be transferred into another retort, and there mixed with a hot solution of acidulous sulphat of potash, such as remains after the distillation of aquafortis from nitre and sulphuric acid; crystals will be immediately deposited of an alum much purer than common; and here, by a further clarification, may be made equal to that of La Tofla.

§ 5. Manufacture of Alum by Chaptal's process.

An attempt had been made, but with little success, at the manufactory of Javelle near Paris, to prepare alum by the direct combination of its constituent principles; but it was not till the admirable and decisive experiments, in the large way, by Chaptal, published by him in the genuine spirit of philosophical liberality, that the practicability of this method could be said to be established. According to the modern way of preparing sulphuric acid, the requisite proportions of sulphur and nitre being mixed together, are brought to combustion in a closed chamber lined with lead; the sulphur is thus acidified and converted into vapour, which by degrees unites with the water that overflows the floor of the chamber, and forms a liquid, diluted, sulphuric acid. A similar process was instituted by Chaptal, only sublimating dried clay for the water; the result of which was so favourable, that a large manufactory on the same plan was set up in the Rhone, which, having continued in full activity for several years, and producing alum only inferior to that of La Tofla, merits a particular description.

The chamber in which the combustion is performed is 91 feet long, 48 feet wide, and 31 feet in height to the pitch of the roof. The walls are of common malony, lined with a moderately thick coating of white plaster; the floor is a pavement of bricks, set in a mortar, composed of baked and unbaked clay; and this first pavement is covered by a second, in which the bricks are made to overlie the joints of the lower ones, and are themselves firmly connected to each other by a cement, composed of equal parts of pitch, tur-
especially as the rock alum is the kind used in medicine, and the Brunswick imitation of it contains arsenie. The external appearance of the two sorts differs but little. The taste of the Brunswick alum is a little more than that of the rock alum, it is less soluble in water, and when heated to redness, it loses only 37.5 per cent. of its original weight, while the latter loses 50 per cent. The rock alum, when exposed to the blow-pipe, becomes opaque, fuses, forms, and is converted into a lumpy white mass. The Brunswick alum, on the contrary, fuses less, scarcely foams at all, but melts, and becomes of a green colour, exalting at the same time an arsenical vapour. Again, the precipitate from a solution of rock alum by potash or soda, being mixed with boric, fuses before the blow-pipe into a white or yellowish white; whereas the Brunswick, by the same treatment, affords a violet-coloured globule; and in fact it is nothing more than common alum, containing a little cobalt and arsenic.


The Roman alum, manufactured at La Tolfa, is the purest and dearest of all; it is in pieces about the size of a walnut, fJeffing more or less of its cryftalline form, and is opaque, on account of a farinaeous effufcence with which it is covered. The Levant or rock alum appears in fragments of nearly the same fize as the former, but in which the cryftalline form is more obvious; it is externally of a dirty rofe-colour, and internally exhibits the fame tinge but clearer. Smyrna is the place whence it is usually shipped for Europe; but it was anciently made at Roccha, or Edessa, in Syria, whence its commercial name rock-alum. The French alum, that is, Chaptal's, described in § 5, is in fmall, clear, colourless cryftals. The Englifh is in large, irregular masses, considerably harder than the others. Equal portions of all these kinds, being exposed in a muffle to a red heat, were weighed after the intumefcence was over, and the fols by calculation in the Roman alum was 50 per cent.; in the Levant alum 40 per cent.; in the French alum 57 per cent.; and in the English 47 per cent. Of pure water, at 144° Fahr. Roman alum required 14 times its weight for solution; Levant alum required 12 parts; French alum 13 parts; and English 15 parts.

Equal parts of thefe four kinds of alum being dissolved separately in water, the fame quantity of precipitated lime was added to each solution. That of the English alum became slightly blue at the end of a few minutes, as was also that of the French alum, though the tint was rather lighter; after some time the Roman alum became faintly blue; but the solution of Levant alum was only slightly yellow, the natural colour of the precipitated lime. After two days an appreciable quantity of blue precipitate was deposited from the English alum, rather less from the Roman and French, and only a few atoms from the Levantine; the three first solutions were of a bluish green tint, but the last was a very dilute yellow.

Equal parts of the four sorts were dissolved separately in pure water, and their earthy bafe was precipitated by an excess of ammonia. The precipitate from the Roman alum was of a pure dead white; that of the Levantine and French was nearly equal to the Roman; but that of the English was of a dull perceptible bluish tint. By calcination in a red heat, they all at first became blackish, and ended with being perfectly white.

Hence is apparent the superiority of the Roman alum, and the inferiority of the English, when used as mordants for the most delicate colours: for other colours, and for the various utes besides to which alum is applied, each kind may be used indifferently. The English poifeffes less water of cryftallization than the Roman or French; and a given weight of it will go further than the fame quantity of any of the rest, as 12 per cent. is to be deducted from the Levantine, on account of the reddish infufible sediment with which it is contaminated.

§ 8. Historical notice of the introduction of alum-making into Europe.

The ancients appear to have been acquainted only with the native phume alum, which they procured from Lipari, and the neighbouring volcanic islands. In the 12th, 13th, and 14th centuries it was manufactured at Edessa (Roccha) in Syria, in the vicinity of Constantinople, and at Phoca (Toua nova), not far from Smyrna. Bartholomew Perdia, a Genoese merchant, who had often visited Roccha, discovered, about the year 1450, a vein of alum ore in the island of Thasos, and there established the first European manufacture of alum; soon after John de Caltro discovered the body of ore at La Tolfa. Establishments were then made at Viterbo, Volaterra, and other places in Italy with such success, as induced Pope Pius II. to prohibit the importation of Oriental alum. In the 16th century this art was introduced into Germany and Spain; and a little before its conclusion the English alum-works at Whitby were established by Sir Thomas Chaloner, who had the honour of being personally excommunicated by the reigning pope in this very conscription. The earliest of the Swedish works dates no higher than 1637.


ALUM, in Chemistry, Materia Medica, &c. See Sulphate of Alumine.

ALUMINE.—Pure earth of alum.—Pure clayey or argillaceous earth. Alumine.—Terre d'alun.

Terre argileuse, Fr.—Thon-erde, Germ.

The word alumine has been adopted, without alteration, from the modern French nomenclature, by the majority of English chemists, as the technical name of pure argillaceous earth, on account of its being generally procured by the decomposition of alum, when required to be in a state of extreme purity.

Next to filex and lime, alumine appears to be the most commonly occurring earth in those fliny or earthy mafles, of which the globe, as far as we are acquainted with it, is principally composed. It forms the essential, though seldom the greatest part of all kinds of clays, giving to them the property of ductility or plasticity when mixed with water. When in a state of more intimate combination with filex it loses its quality of placticity, and gives to the materials in which it enters, the characters of opacity, of hardnefs inferior to that required for striking fire with fléel, of that odour known by mineralogists under the name of earthy, and of that absence of cryftalline form which is called amorphous; such are the minute mafles of flate and argillaceous fchistus that abound in almost all mountainous tracts, the boles, the colorife earths, the toadstones and clay porphyries. Alumine, however, occasionally, though very rarely, enters in large proportion into cryftallized minerals, and then in its external characters of hardnefs, transparency and luftre approaches very nearly to filex; such is the adamantine flär, inferior only in hardnefs to the diamond, and which contains from 80 to 90 per cent. of alumine: such also is the fapphire, which by the analysis of Klaproth appears to contain no less than 98 per cent. of pure
pure alumine. These, however, which are more properly the mineralogical than chemical characters of alumine, will be treated of at larger in the subsequent mineralogical articles.

Pure alumine, in a state proper for chemical experiment, has hitherto never been found native, and it is only of late that chemists have discovered the method of obtaining this earth sufficiently free from foreign admixture. The method of Bergman and his contemporaries was to decompose a solution of purified crystals of alum by an excess of carbonated potash, or soda, and to wash the earthy precipitate in repeated quantities of distilled water, till it came off perfectly tafteless and pure; a white uniform soft matter was thus obtained, which was supposed to be carbonated alumine, and this by drying in a heat below that of redness, was deprived of its acid and water, and was then esteemed pure alumine. The insufficiency of this method had begun to be suspected for some time, however, particularly from the appearance of sulphurated hydrogen, when alumine thus purified was heated with charcoal, and afterwards moistened with a diluted acid, and the admirable memoir of Vaquelin on alum, (which has already been referred to under that article) not only established the validity of these suspicions, but pointed out the method of avoiding the errors of his predecessors, and thus introduced a very important improvement in the difficult art of chemical analysis. Alum has already been shown to be a triple compound of alumine, potash and sulphuric acid in excess, and when this excess of acid is taken away, either by the addition of alumine or of an alkali, an insufible salt is produced differing from alum only in the proportion of its earthy base; now the cafe with which a salt is decomposed depends very materially on its solubility, when, therefore, we add gradually to a solution of alum a solution of carbonated alkali, the first effect is to neutralize the excess of acid, and the precipitate consists principally of the insufible salt just mentioned; a further quantity of alkali, especially if heated by heat, will effect the decomposition of part of the salt, but in proportion as this takes place the residue becomes mixed with the alumine, and thus is covered from the further action of the alkali. This being the case, it is obvious that no subsequent washings can do more than separate the sulphated potash; and therefore the residue, instead of being pure alumine, contains besides a variable proportion of earthy alum from which last proceeds the sulphur obser-
decrease of bulk is in part occasioned by the expulsion of the last particles of water; but from the augmented specific gravity of the alumine, it is plain that an actual condensation or approximation of molecule takes place, as is observable in various other porous substancess previous to fusion. Whether any artificial heat is able to bring this earth into real fusion is as yet dubious; for though Lavoisier, by means of a blow-pipe charged with oxygen gas, reduced a piece of alumine to a pally fluid-liquid, it is yet improbable, as the earth was obtained from alum, that a minute portion of potash might still be contained in it, and thus act as a flux.

Alumine has a strong affinity for metallic oxyds, especially the oxyd of iron; hence arises the difficulty, and indeed almost impuillability, of obtaining alum free from iron in the great way, because all natural clays and aluminous orces contain more or less of this metal. The only way of accurately separating these two substancess is by digestion in caustic potash or soda, which will dissolve the earth, but not the oxyd.

These two substancess are also capable of acting on each other in the dry way at high temperatures; and some important experiments on this subject are recorded by Achard and Kirwan, from which it appears, that when the proportion of alumine exceeds that of the oxyd of iron, the mixture is in all cafes very difficulty fusible; that when the proportions of the ingredients are equal, and especially when the iron predominates, the refult, after expoefure to a heat of about 160° Wedgewood, is a dark-coloured vitrecous flag.

The action too that subfists between alumine and vegetable or animal colouring matter, is singularly powerful. Thus, if, to a watery infusion of cochineal or madder, a few drops of a solucion of alum are added, a decomposition shortly takes place, and the whole of the tinged particles unite, and are precipitated together with the aluminous base of the earthy falt, leaving the supernatent liquors wholly colourleff. Fugitive colours also, by this combination, become of fufficient permanence to refit for a long time the changes to which they are subject: hence is explained the preparation of the Lake pigments, and the theory of Mordants in the art of Dying.

In the direct way sulphur appears to contrive no union with alumine; and the hepatic gas that is separated by an acid from alum, after having been heated with charcoal, is no longer a decisive evidence of fulphuret of alumine, since the discovery of the necessity of potash to the very constitution of common alum.

Upon the gaseous substancess alumine has not been observed to produce any change, although Humboldt has published (Annales de Chimie, vol. xxix.) a long and plauflible memoir, to shew that alumine absorbs the oxygen of the atmosphere, and hence produces an important effect in the economy of vegetation. It is true, indeed, that many natural clays will deoxygenate atmospheric air; but this is solely owing to the carbonaceous matter and oxyd of iron that they contain, it having been proved by accurate experiments, instituted for this purpose by Theod. Sauvage and others, that pure alumine has no effect whatever on oxygen gas or atmospheric air.

All the acids are capable, in particular circumstances, of combining with alumine; but thefe combinations are not accomplished with the fame ease as thofe between the acids and alkaline earths. The stronger mineral acids will take up alumine from clay by digestion at a boiling heat, but the vegetable and other weaker acids will not readily effect a solution, except the alumine is presented to them recently precipitated by an alkali from sulphuric, nitric, or muriatic acid. All the aluminous farts are decomposed with precipitation of the earth by the caustic or carbonated alkalies, or alkaline earths. For further particulars see the farts under their respective acids.

Ammonia has not yet been observed to exert any action on pure aluminous earth; but both potash and soda, when caustic, will dissolve it without any difficulty. This may be done by evaporating to dryness, and igniting in a fliver crucible, a mixture of caustic alkali and alumine, and then liquifying the mass, or merely by boiling some fresh precipitated alumine in a watery solucion of the alkali. This aluzlated alumine has of late been recommended as a preferable mordant to common alum in the fixing of those colours that are injured by the presence of sulphuric acid. To separate alumine from its solucion in caustic alkali, it is necessary to add nitric or muriatic acid in sufficient quantity to neutralize the alkali and dissolve the alumine, and then to precipitate the earth by caustic ammonia.

The action of barytes on alumine is analogous to that of the alkalies, yet presents some peculiar characters. When a solucion of caustic barytes in water is added to a liquid muriat of alumine, the first effect is the appearance of a precipitate, owing to the decomposition of the falt by the barytes; if this falt, however, is added in excess, the alumine is redissolved by it, and the liquor becomes clear.

Again, if equal parts of newly precipitated alumine and caustic barytes are boiled together in a quantity of distilled water sufficient to take up the barytes, about half the mixture will be dissolved, and upon analysis the infoluble residue will be found to consist of alumine, with a small proportion of barytes, while the solucion will consist of much barytes and a little alumine. By adding to the liquor some muriatic acid, to engage the excess of barytes, a flocculent precipitate will be deposited, confiting of the two earths, nearly in the proportion of the original infoluble residue. Hence it appears that alumine combines with barytes into a falt which is infoluble in mere water, but is capable of being rendered solfible therein by the affinity of barytes. In the dry way, at about 150° Wedgewood, any mixtures of the two earths in which the alumine preponderates remain pulverulent; but when the barytes is three or four times as much as the alumine, the powder concretes into a hard mass, without, however, shewing any signs of fution. In order to decompofe barytic alumine, dissolve the whole in muriatic acid, and add caustic ammonia; the alumine alone will be precipitated.

Strontian produces the same effect on alumine as barytes, but more feebly; the action of these two substancess in the dry way, on each other, has not yet been the subject of experiment.

It appears highly probable that lime has a fimilar affinity for alumine, as the rect of the alkaline earths poftifes; the only experiment, however, upon the subject, is one of Moreau's; he mixed equal parts of muriat of alumine and muriat of lime in solucion, and immediately a precipitate took place, which was infoluble by an excess of acid; this has been once repeated by Darraçq, a pupil of Vanquelin, without effect, the liquor remaining perfectly limpid; hence it is probable that the alumine of Moreau was not quite free from sulphuric acid, and that the infoluble precipitate was merely lecithite. In the dry way lime and alumine in any proportions are infoluble, except by means of a blow-pipe, charged with oxygen gas.

The action of magnesia on alumine is not yet fully ascertained; it appears, however, from Mr. Chenevix's experiments, that the ammonico-magnesian triple farts, are formed with difficulty, when alumine is present, and that magnesia prevents, in a great measure, the solubility of alumine in the caftic fixed earths. This combination of the two earths
earth is, however, soluble in muriatic or nitric acids, and may then be decomposed either by hydrochlorure of soda or of ammonia, which will precipitate the alumine and retain the magnesia in solution, or by an alkaline prussiate, which will also separate the alumine while the precipitated magnesia remains dissolved. In the dry way, according to Kirwan, magnesia and alumine at 150° Wedgewood have no action on each other in any proportions.

A considerable degree of affinity exists between flex and alumine, and the indisputable formation of this compound in many analytical experiments on minerals has often produced a number of deceitful and embarrassing appearances, which have vitiated the results of many laborious analyses. Chemistry is, therefore, indebted to Klaproth for showing, that when a solution of pure flex in caustic potash is added to a solution of alumine equally pure in the same menstruum, the liquor immediately assumes a reddish brown colour, and after standing an hour or more, coagulates into a thick opaque whitish jelly. This jelly, by the addition of a little warm water, is resolved into a fluid, and being then mixed with muriatic acid, to the exact saturation of the alkali, a copious precipitate is deposited, consisting of the two earths, in a state of combination; if now a small excess of acid is dropped in, the flex as well as the alumine, will be perfectly dissolved. Carbonated potash will again cause the precipitate to appear, and this even when separated by filtration and dried, will be still entirely soluble in dilute sulphuric acid, without the smallest deposition of flex. If the sulphuric solution is then gently evaporated, crystals of alum will be deposited, and the remainder will assume the form of a clear jelly, the surface of which, after a few days, will be covered with crystalline pyramids; and in order to show that it is really flex mixed with alumine, which has thus repeatedly been dissolved in acids, nothing more is necessary than to mix this jelly with a large quantity of water, and digest it for some while in a moderate heat, straining it repeatedly at the same time, when the liquors will become turbid and pure flex will be deposited. In the dry way, according to Kirwan, equal parts of alumine and flex at 160° Wedgewood concrete together, but flew no signs of fusion.

Alumine is as yet a pure chemical element, never having been composed or analysed. From its affinity with colouring matter, and its blackening in a low heat, Baron was of opinion that it was of a metallic nature; and even Lavoisier entertained the idea that it might be a metallic oxygen, whose component elements were united together by a very powerful affinity. Beannie considers the earth of alum as essentially the same with flex, being led into this mistake by supposing rock crystal repeatedly with potash, and always obtaining alumine; this experiment of Beannie's was repeated by Scheele, who found indeed that it was true whenever an earthenware crucible was made use of, but perceiving the crucibles corroded internally after every process, he suspected that the alumine was furnished by the action of the alkali upon them; in proof of which he repeated the fusion of flex with potash in an iron crucible, and as might be expected, did not procure a particle of alumine.

The uses of pure alumine are wholly confined to the laboratory: it gives, however, their peculiar character to all glazes: every thing, therefore, that depends on the cohesive-ness and plasticity of these substances when fresh, and their hardness after being baked, may be fairly attributed to the alumine which they contain: hence, it is the basis and material of all the arts of pottery, from the common brick to the finest porcelain, and these include more of the comforts and elegancies of life than are perhaps dependent on any other substance in nature.
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thrice and condition of the faeces, or excrements, contained
within that cavity.

Thus, when a person is laxative, it is called aleus liquida;
and when colitive, aleus afferlata.

They who are of a loose belly in their youth are gene-

erally colitive in their old age; and they who are bound in

youth are often loose when old. A laxer state in youth,
and rather bound than loose in old age, is most desirable.

Binders of the belly are labour, fitting in a chair, fullers' clay lid over the body, diminution of food, eating once a day
instead of twice, little drinking, and that only after a full
meal, refl after meals. On the contrary, things which loosen
the belly are, walking and eating more than usual, stirring
after meat, intermixing draughts with eating, and it ought to
be observed, that a vomit binds a loose belly, and loosens a
bound one; and that a vomit taken immediately after meat
binds the belly, but, delayed until a considerable time after,
loosens the fame. Celsus.

ALWAIDII, a seat of Mahometans, who hold that all
great crimes are unpardonable, and the criminals reproportioned
to eternity. The alwaidii stand in opposition to the mor eii.
They attribute less efficacy to the true belief in the salvation
of men than the rest of the Mussulmen.

ALWEIL, in Geography, a lake of Switzerland, in the
canton of Berne, seven miles long, and one and a half wide,
seven miles south-east of Aran.

ALWEN, a river of North Wales, which runs into the
Dee, seven miles north-north-east of Bala, in Merionethshire.

ALWOS, a large and populous village of Hungary, on
the side of the Danube, in the district of Comarro, and fa-
mous for an aqueduct made there in 1747.

ALYATTIS boul-drowned, in Antiquity, the tomb, or rather
burial-place of Alyattis, the father of Cereus, near Sardis, which was fix flacia in circumference.

ALYBA, in Ancient Geography, a town on the eastern
part of Persia, belonging to the Alybians, who inhabited
this coast; supposed to be the fame with the Chalbyes,
whose country furnished metals.—Also, a mountan of Af-
frica, the fame with Albyla.

ALYCUS, a town of Peloponnesus which was either
Aine of Megaris, or near it.

ALYMN, a town of Aia Minor, situat to towards the
confines of Phrygia, Caria, Lycia and Pusidia.

ALYMOHAN, in Geography, a town of Hindoofan, in
the country of Guzerat, and circar of Champancer, 100 miles
north-east of Surat, and 32 call-south-east of Champancer.

ALYPIAS, in the Materia Medica of the ancients, a
species of turbet, prefigured for the purging of bile. Some
write the word alypum, and define it by white turbet. Galen
used alypum, avetum, for a ministeure, or a medicine that
gently purge.

ALYPIUS of Alexandria, in Biography, a Platonic phi-
losopher, was much celebrated for the acuteness of his gen-
is, and the subtlety with which he lectured upon the ab-
frrate speculations of the Platonic school. Jamblicbus, who
was his contemporary, and who wrote his life, commends
him highly on account of his exemplary virtue, as well as
his distinguished talents. His stature was very diminutive,
sot that he was denominated a dwarf, but his mind was pro-
portionally capacious and superior. He died at Alexandria

ALYPIUS of Antioch, a geographer of the fourth century,
lived under the reign of Julian the apostate, and was sent
into Britain as deputy-governor, where, says Mr. Gibbon,
his humanity was tempered by severe justice and manly for-
titude, and while he exercised his abilities in the civil admi-
istration of the country, he imitated, in his political compo-
fitions, the harmony and softness of the odes of Sappho. To
Alypius, Julian entrusted the execution of his plan for re-
building the temple of Jerusalem. Ammianus Marcellinus
inform us, that whilst Alypius, afflicted by the governor of
Palestine, urged, with vigour and diligence, the accomplish-
ment of the work, horrible balls of fire breaking out near the
foundation, with frequent and reiterated attacks, rendered
the place, from time to time, inaccessible to the scourched
and blistered workmen; and the victorious element continu-
ing in this manner obdilately and resolutely bent, as it were,
to drive them to a distance, the undertaking was abandoned.
On this relation Mr. Gibbon, in his usual manner, observes,
that "Such authority should satisfy a believing, and muft
alohon an incredulous mind. Yet a philofopher may still
require the original evidence of impartial and intelligent spe-
tators. At this important crisis, any singular accident of
nature would assume the appearance, and produce the ef-
seks of a real prodigy. This glorious deliverance would be
fpeedily improved and magnified by the pious act of the
clergy of Jerusalem, and the active credulity of the Christian
world; and, at the distance of 20 years, a Roman historian,
carefles of theological disputes, might adorn his work with
the specious and splendid miracle." The impartial enquirer
into the credibility of this event will derive greater satisfac-
tion from the testimonies for and againit it, cited by Dr.
Lardner, than from the farcical reflections of this popular
historian, whose scepticism on the fubject of religion has
sometimes perverted his judgment with regard to historical
facts. Julian's attempt for rebuilding the temple, and the
defeat of it by divine interposition, are mentioned by three
contemporary writers, viz. Gregory Nazianzen, Chryfotom
and Ambrofio, bishop of Milan, all Chrisfians; and also by
Ammianus Marcellinus, a learned heathen; and afterwards
by Rufinus, Socrates, Sozomen, Theodorc, and Philosophi-
gus, as well as by later writers. Some Jewish writers, as
R. David Ganius, and R. Goldi, have also been al-
leged as bearing testimony to this event. The truth of the
historgamma, thus confirmed, has been maintained by Fabricius,
Witius, bishop Warburton, and others of high reputation
in the republic of letters. Bafiage has made some objec-
tions to this history, and Dr. Lardner, with his usual mo-
desty, has suggested several reasons for doubting its au-
tenticity. He first argues, that Julian's own writings le-
d us to think that he never attempted to rebuild the temple
at Jerusalem; it is also unlikely, that he should give or-
ders for this purpose, and allot money for it out of the
public treasury, when he was setting out in his expedi-
tion against the Persians; and though great fires was laid
unpon the testimony of Ammianus Marcellinus, a heathen,
and an impartial historian, yet he had his account from the
Chrisfians, which he seems to have taken up without ex-
amination, and it sufficiently appears from other circum-
stances, that he was credulous; besides, the history of this event,
as it is related by Chrisfian writers, is loaded with miracles, or
pretended miracles, which appear to be incredible: nor was
there at that time any occasion for such miraculous interpo-
sitions. And, lally, there are several Chriftian writers, who
have faid nothing about this affair, but who were likely to
have mentioned it if anything of this kind had been done;
thus are Jerome, Prudentius and Orosius.

Whether Alypius was ever employed in rebuilding the
temple or not, it appears that towards the latter part of his
life, he was accuited, with others, of praclizing magic.
Hierocles, his ton, was condemned to death, and he himself
suffered conflagration and banishment. They were charged
with administering poison; but Ammianus represents their
fathering as unjust. Alypius was the author of a treatise
in
ALYPIUS, in Biography, one of the seven Greek writers on music, that have been collected and published with a commentary and notes, in 1652, by Melbonius. It is difficult to ascertain the time of his exile. Callidoros (de musica) placed him before Euclid and Pythagoras, and has ranged his tract, *Eiçmujjew ÿewewv,* or *Introduction to Music,* between that of Nichomachus and Gaudelius. The contents of this work furnish the most ample nomenclature of all the sounds of the several scales and modes of the ancient Greek music, that has come down to us. The characters for found used by the Greeks for their several modes in the three genera, amounted to 1620. These notes were formed of the twenty-four letters of the Greek alphabet, entire, mutilated, single, double, or lengthened; sometimes turned to the right, sometimes to the left, or lying horizontally, so that their corners or sides were turned upwards; and lastly, some were barred, and others distinguished by the grave and acute accents, which had likewise a place among these numerous discriminations.

This tract was first published by Meurinus, 1616, from the MS. of Joseph Scaliger, but not very correctly, according to Fabricius. Kircher has given extracts from Alypius in his *Memphigia, 1650.* pretending that he had translated the whole into Latin; but the table which he has inserted from him of ancient musical notation, is so inaccurate, that Melbonius, who consulted not only the Greek MS. of Scaliger, but that of Bolejanus, Barocius, Barberitti, and Selden, affirms, that he found in it more than 200 errors.

It is from the indefatigable labour of the learned Melbonius, in his commentaries upon the ancient Greek musicians, particularly Alypius, that we are able to decipher those characters; which, before his time, had been so much altered, corrupted, disfigured, and confounded, by the ignorance or intemperance of the transcribers of ancient MSS. that they were rendered wholly unintelligible. See *Greek Music,* and *Notation.*

ALYPOON. *Montis Ceti,* or white turthib, in Botany and the *Materia Medica.* See *Convolutus.*
two feet, with woody stalks, dividing into several branches; the flowers are produced at the extremity of every shoot in round bunches, small and white; the filicule is oval, and full of brown seeds; it grows naturally in the south of France, Spain and Italy, Germany, Austria, Sweden, &c. chiefly on rocky or gravelly soils, is perennial, and was cultivated here by Parkinson in 1640. 7. A. Minum, leaf M. with flims diffused, leaves linear, downy, and filicules compressed. This is annual, and grows wild in Spain: the petals are yellow and submarginate. 8. A. Calycium, calycine M. with flumes all toothed, and permanent calyces. It is annual, and found wild in Austria, Carniola, France, Germany and Switzerland. The petals are small and yellow, becoming white with age: the filicule has two seeds in each cell; one of which is commonly abortive: it was cultivated by Miller in 1768. 9. A. Montanus, mountain M. with flims diffused, leaves sublanceolate, dotted and echinate. The branches trail, the leaves hoary, rough and alternate, the flowers produced in small clusters at the ends of the branches, and of a dark yellow colour: it grows naturally upon rocks in Burgundy, and some other parts of France, about Bail, in Germany, Austria, Carniola, &c. is perennial, and cultivated by Miller in 1759. 10. A. Campfer, field M. (omitted by Gmelin) with flumes guarded by a pair of bristles, and calyces deciduous; resembles the 8th in flims, leaves and petals, is annual, and a native of France, Germany and Switzerland, and cultivated by Miller in 1768. 11. A. Clypeatum, buckler-podded M. with flim erect, filicules sessile, oval, compressed-flat, petals pointed and linear. This is a biennial (annual, Linn.) plant, and grows naturally in Spain and Portugal, and it was found by Turnefort, on Mount Libanus; it was cultivated by Gerard in 1596. To the division with filicules inflated, or calyces oblong and closed, belong the following species. 12. A. Sinum, lanceolate M. with flim herbaceous, leaves lanceolate-deltoid, and filicules inflated. This is a slow spreading plant, which divides into small branches, garnished with hoary leaves through the year; the flowers produced at the ends of the branches are of a bright yellow colour. It is annual, or triennial, and grows wild in Spain by the way-side, and in the islands of the Archipelago, and sufficiently hardy to bear the open air in England, in a dry soil and warm situation; it was cultivated in the Kew garden in 1686. 13. A. Ceratium, cerat M. with flim shrubby, leaves lanceolate, a little toothed, downy, filicules inflated and globular. This species feldom continues longer than two years in England, and in a warm, dry situation, will live in the open air. It is a native of Spain and Canda, and cultivated by Miller in 1759. 14. A. Genon, genon M. with flim herbaceous, branches divaricat, root leaves obvate, rather downy, and filicules inflated. This differs from the last in having divericated branches, and smaller flowers of a deep yellow colour. The root is perennial; the flim spreads on the ground; the leaves are roughish and ashy-coloured, about five inches long, and scarcely an inch broad; the perianth is spreading, yellow and hirsute; the petals are twice the length of the calyx, obvate and emarginate. This species was discovered by Ardun in 1759, on the mountain Della Fontana, near Gemona, in the district of Forvi in Italy, in the clefts of rocks: it flowers in May and June. 15. A. Urtiulatum, bottle M. with flim herbaceous, erect, leaves smooth, lanceolate, quite entire, and filicules inflated. This has the flower of hemenaria; and resembles it, except in its inflated filicules; it was found by Turnefort in the Levant, and grows in the vineyards of Savoy: it is a hardy and beautiful perennial, flowering from April to June, when it begins to form its curiously inflated pods: it is well adapted to the decoration of walls or rockwork; it was cultivated in 1739 by Miller. 16. A. Vescaria, bladder M. vescaria of Tournefort, with leaves linear, toothed, filicule inflated, angular and acute. This species and the next have trailing flims, and produce their flowers towards the extremities in loose spikes. 17. A. Delicdum, delicdum-leaved M. leucoium fasciculate, &c. of Badian, with flims understrubby, prostate, leaves lanceolate-deltoid, and filicules hirsute. The flowers of this resemble those of the rock-gilly-flower, and are of a purple colour; it was cultivated in 1739 by Miller. This and the last were found by Tournefort in the Levant. The albyum fustum of Dr. Smith, with an herbaceous flim, lanceolate and frigittate leaves, and obvulate inflated filicules, or gold of pleasure, is a species of Mya

grum in the Limenee fylum.

All the species may be propagated by seed, and most of them by slips and cuttings. The seeds should be sown in a border of light earth in April. Cuttings or slips should be planted in April or May; shaded in the heat of the day, and gently refreshed with water. In rich ground they felled live through the winter in England; but in a dry, poor, rubbishy soil, or on old walls, they will endure the cold and remain much longer. Martyn.

Alyssum. See Cardamine, Clypeola, Draba, Mygrum, Peltaria, Stachys, Subularia, and Sisyrium.

Alytarcha, in Antiquity; a priest of Antioch in Syria, whose office was to lead up the magiophori, or flagelliphoroi, officers with whips in their hands, who attended at the games or combats of the athletes, encouraged them to behave fluently, and, on occasion, served to preserve good order, and keep off the crowd.

The officer who presided at the Olympic games was also sometimes denominated alytarcha.

Some will have the alytarcha to be the same with the heliocrates, of which opinion are Faber and Pridaux.

Van Dale hews them to be different offices; not but that the alytarchi might sometimes be substituted for the heliocrates, to perform some part of their function.

The alytarchi were the same with what were called, in some other places, alyte.

Alyxia, in Botany. See Gymnogon.

Alyzia, in Ancient Geography, a town of Greece in Acaania, about 15 stadia from the sea, and near the port of Hercules.

Alza, in Geography, a river of Germany, which runs into the Inn, six miles east of New Oeting, in the circle of Bavaria.

Alzach, in the Materia Medica, the name given by the Arabian Physicians, to that kind of ground called in the shops the citrul, and by the people of some parts of Italy, the anguria. It is an oblong, and usually crooked ground, and contains in its cavity a considerable quantity of water, which is drank by people of the places where the plant is common, to quench thirst. It contains seeds of an oblong figure, flattened, and covered with a hard skin.

Alzagiat, a name given, by the Arabian writers, to all the vitriolic minerals. It is also written sagi, or zagi.

Alzarac, a name given to a kind of camphor, which was coarser, and of a brown colour. It seems to have been the same with our rough camphor, as imported from the Indies, before being purified.

Alzato, in Geography, a town of Italy, in the territory of Coma, in the Milanese, four miles south of Coma.

Alzach, a town of Germany, in the archduchy of Austria, four miles west of Schwamnallstatt.

Alzey. See Alzey.

Alzira. See Algazeira.

Alziz, a name given by Serapio and Avicenna to the roots of the trig. The word Alz is the name of a river.
river in Africa, according to Leo; and the roots probably had this name from their being found in great plenty on the banks of that river, the trees always growing in wet places.

ALZENIA, in Geography, a province of Afa, in Great Armenia, towards the river Tigris, comprehending nine very considerable districts, which extend along the river to Karamut or Diarbekir.

ALZON, a town of France, in the department of the Gard, and chief place of a canton, in the district of Vigan, 15 miles north-north east of Lodève.

ALZON, a river of France, which runs into the Gard, about a league below Uzes.

ALZONNE, a town of France, in the department of the Aude, 21 leagues west of Carcassonne.

ALZUM, in Botany, a name given, by the ancients, to the tree which produces the gum bdellium. It is also written alrum and aldum, which last seems the proper way. The gum of this tree was called, by the Arabians melk, and the name word melk was ascribed to the name of a fruit of a palm-tree.

Ain, in Geography, a famous city of Armenia, where they formerly reckoned 100,000 houses, and about 1000 mosques. It was taken by the Tartars in 1219, and is now considerably reduced. It is thought to be the present Ain.

Ain, in Ecclesiastical Writers, denotes a vessel wherein wine, water, or the like, were held, for the service of the eucharist: in which sense, the word is also written amula; sometimes also banna and bannita.

Ain is sometimes also used for a wine-measure, as a café, pipe, or the like.

Ama, Ame, or rather Amis, a fort of cake.

Aretaeus used this word to express the quantity of hellebore which is sufficient for a dose in strong constitutions, when given in a syrup.

Ama, or Amaz, in Geography, a town of Syria, once the celebrated city of Apamea, now reduced to ruins.

Ama, or Hama, a town of Germany, in the circle of Welphalia, and bishopric of Liege, 8 miles south-west of Liege.

AMAAD, in Scripture Geography, a town of Palestine, on the borders of the tribe of Azar.

AMABYR, or AMABYR, q. d. in ancient British, “the price of virginity,” in some Ancient Customs, a sum of money to be paid the lord upon marrying a maid of his manor. —

This custom is said to have anciently existed in Wales, where amabry was paid to the prince: also in the honour of Chu in belonging to the earl of Arundel, till earl Henry, in the times of queen Mary, in consideration of sixty pounds, released it to all his tenants by the name of the custom of amabry and chevage.

AMACHES, in Geography, a people of South America, in Brasil, inhabiting the vicinity of the territory that extends from St. Sebastian to Rio Janeiro.

AMACASTIS, in Ancient Geography, a town of India, on this side the Ganges, according to Ptolemy.

AMACURA, a town of Africa.

AMACI, a people of Spain, whose capital, according to Ptolemy, was Aturia Augusta.

AMACK, in Geography, an island of Denmark, joined to Copenhagen, and consequently to Seeland, by two bridges over the channel that separates them. It is about one and one-half geographical mile in length, and above half a mile in breadth. It is level and without woods; the soil is uncommonly fertile, so that it is considered as the kitchen-garden and storehouse of the city; and the inhabitants supply it twice every week with all sorts of succulent vegetables, and also with milk, butter, and cheese. The present inhabitants occupied it in 1516, being invited hitherto by Christian II. from the province of Water-land, in North Holland. The whole island contains about 800 families, and is divided into two parishes. The dialect of the people is a medley of the low Dutch, German, and Danish languages; their mode of drees, and of living is peculiar to themselves. In the summer they drive their cattle for pasture to a small neighbouring island, called Saltholm. There are excellent quarries of stone for lime and building on this island.

AMACORE, or AMACURE, a river of South America, which waters the Caribiana, and runs into the Northern sea, near the mouth of the Orinoco.

AMACOSQUIT, in Ornithology, a name given by Ferdinando to Mexican bird, supposed to be of the species Charadrius or Plover. It is a pluto bird, the plumage is mixed with white and black, and it has a double collar. It is seen the whole year on the lake of Mexico, where it lives on aquatic worms.

AMACUSA, in Geography, an island and province of Japan, with a town of the same name, that borders upon that of Oyan, and is south-west of the island of Kiura. It is between 31° 30' and 32° N. lat. and E. long. 129° 29'.

AMADABAD. See Ahmedabad.

AMADAN, or AMADAN, a town of Persia, in the province of Irac-Agemi, between Bagdad and Isphahan, about 80 leagues from one and the other. It is seated at the foot of a mountain, whence issue streams that water the country; its extent is large, as it encloses wide and cultivated land, though it has but one tolerably fleet formed of houses, that are built of brick, hardened in the sun. The adjacent country is fertile, and productive of corn and rice; the air is salubrious, but in Winter the cold is intense. The Armenians have a church in this town, and the Jews have a synagogue, near which is a tomb, where, according to report, Esther and Mordecai were interred. This place is restored by several pilgrims from all parts of the Levant; and in its vicinity is a mountain called Niskiana, abounding with various herbs, and the sick repair hither to recover their health by inhaling its salutary effluvia. Anadan is an ancient city; and it is said that it was destroyed by Nebuchadnezzar, and rebuilt by Darius. The kings of Persia retired to it on account of its delightful situation, and hence it obtained the name of the “Royal City.” It was reduced by the Caliph Othman, and was nearly destroyed by Jenghis Khan in 1220. Its castle and walls are now in ruins; and it is merely distinguished by its gardens and springs. N. lat. 35° 15'. E. long. 14° 59'.

AMADANAGAN, a town in the Higher Peninsula of India, in the province of Deccan. It was taken by the Moguls in 1598. N. lat. 18° 10'. E. long. 74° 15'. See Ahmednagar.

AMADEUS V., count of Savoy, in Biography and History, succeeded to the sovereignty in 1285, and obtained the surname of “The Great,” by his wisdom and successes. His possessions were much enlarged by marriage, purchase, and donation. In defending Rhodes, against the Turks, in 1311, he gained distinguished honour; and in memory of this service, he and his successors took for their device, F. E. R. T. the initials of the Latin words Fortitudo ejus Rhodum tentavit,” i.e. his valour preferred Rhodes. The grand master of the knights of St. John, to whom Rhodes belonged, granted him a palace at Lyons, as a reward of his effectual succour. He died after a reign of 38 years, in 1323, at Avignon, where he was soliciting pope John XXII. to publish a crusade in favour of Andronicus, emperor of the East, who had married his daughter. He was much loved and honoured by all the sovereigns of Europe, and was generally the mediator in all their differences. Mod. Un. Hist. vol. xxxiv. p. 16.
AMADEUS VIII., count of Savoy, succeeded his father Amadeus VII., in 1391, and acquired the titles of the "Pacific" and "the Solomon of the Age." Savoy was erected by the emperor in 1416, into a duchy; but after this elevation, Amadeus formed the resolution of retiring from his throne and family into a religious house at a place called Ripaie. In this retreat, which he had fought according to the opinion of the world from religious motives, he devoted himself to every kind of pleasure and luxury, so that faire repartielle became proverbial to signify a life of exquisite gratification and indulgence. Here he instituted the order of St. Maurice, or the Annunciata, consisting of a number of hermits, who excluded women from their community, but in other respects maintained the character of Epicureans and voleties of pleasure. In this retreat Amadeus aspired to the papacy, and employed large sums of money at the council of Basel, to secure the object of his ambition. Accordingly, in 1439, this council, having deposed pope Eugenius IV., conferred the triple crown on Amadeus, under the name of Felix V., though he had never taken holy orders. A schism was the consequence of this extraordinary election; and Eugenius at length excommunicated his rival. On his death Amadeus was persuaded to abdicate, and a new pope was chosen in his room. But his resignation was amply recompened by the dignities of cardinal, bishop and apostolical legate, and by his being allowed to retain most of the pontifical insignia. He died at the age of 69, in 1451, at Lausanne, which, during the latter part of his life, he had chosen for his residence, and was succeeded by his son Lewis, to whom, in his life-time, A.D. 1433, he had resigned the title, but few or none of the revenues of the dukedom. Mod. Un. Hist. vol. xxxiv. p. 78.

AMADEUS IX., count of Savoy, was surnamed the "Happy," on account of his virtue and piety, his readiness to forgive those who offended, his love of justice, and his study to promote the welfare of his subjects. He succeeded Lewis in 1464, and though his bodily infirmities prevented his engaging in any great exploits, he acquired and maintained a very exemplary character. He was eminently distinguished by the benevolence of his disposition. Being once asked by a courtier, whether he kept hounds: he pointed to a great number of poor people, who were feasted at tables, eating and drinking, and replied: "those are my hounds, with whom I go in chase of heaven." When he was told that his alms would exhaust his revenues: "take the collar of my order," he said, "I'll give it, and relieve my people." He married Isolde of France, who concurred with him in all his good deeds. His death, in 1472, at the age of 37 years, and after a reign of seven, was universally regretted. Mod. Un. Hist. vol. xxxiv. p. 82.

AMADIA, in Geography, a fortified and trading town of Asia, in the province of Kurdistan, situated upon a high mountain. Its environs produce tobacco and gall-nuts, which furnish means of commerce. It is the residence of a bey, who governs the whole country. N. lat. 36° 25'. E. long. 43° 1'.

AMADOCIA, in Ancient Geography, a town of European Sarmatia, inhabited by the Amadoci, and whose habitations were also on mountains of the same name, between the Rhodania and Buste-one.

ALMADIS, in Natural History, a species of the Conus, in the Verres Testaceae, with a shell dilutely brown, broad facicla, and articulatd bands above and below; and an acute, crowned spire, finely and transversely striated.

AMADOW, a kind of black-match, tinder, or touch wood, which comes from Germany. It is made of a sort of large mushrooms, or spungy excrecences, which commonly grow on old trees, especially oaks, ash, and firs. This sulphur being boiled in common water, and afterwards dried and well beaten, is then put into a strong Ley prepared with salt-petre, after which it is again put to dry in an oven. The druggists sell this match wholesale in France, and several hawkers retail it. See Agaric.

Some give to the amadou the name of pyrotechnical sponge, because of its aptness to take fire.

AMADOWRY, a kind of cotton which comes from Alexandria, by way of Marseilles.

AMAEAR, or AMMAEA, in Ancient Geography, a town of Lydia, inhabited by the Ammianas, between the Elvas and Tagua.

AMATEGBRIA, now Broic, an ancient town of Gaul, mentioned by Caesar, placed by M. d'Anville on the Arar, to the south of Segobodium, and to the west of Velontio.

AMAGOR, in Geography, a town of Africa, in the empire of Morocco, and province of Hae.

AMAGUANA, the name of one of the Lucayen or Bahama islands, called also Mayagua.

AMAH, or AMAGIA, formerly Varegia and Natrix, a town of Spain, belonging to the Cantabri, on the confines of Asturias, about three leagues from Villa-Diego, at the foot of a very high rock.

AMAILLOU, a town of France, in the department of the Two Sevres, and chief place of a canton, in the district of Parnay, three leagues south-east of Breuillle.

ALMAIN, or AMAYNE, a sea term, used by a man of war, to his enemy; and signifying yield.

Hence, to strike amain, is, to lower, or let fall, the top-fails. The word is also written amain.--Waving amain, is to make a sign to another vessel, by waving a bright sword, or other thing, as a demand for striking its top-fails.—This is commonly done either in the fore-top, or on the poop.

Amain is also a term used in letting down a thing, by a tackle, into the hold, or elsewhere, in lowering a yard, or the like, to denote, that the sailors are to let go that part of the rope which they held before, and let down the thing easily, and by degrees. Amain is also used to denote at once and instantly; as let go amain.

AMAK, called also Ablunagib al Bokar, in Biography, a celebrated Persian poet, was a native of Bokhara, and flourished towards the close of the 11th century, under the sovereigns of the Seljuk race. He was at the head of an academy, consisting of about 100 men of letters, with handsome pensions, established by Khedar Khan, who reigned in the Transoxian provinces, and who was a very munificent patron of letters, and particularly of poetry. This prince prevailed in the academy, seated on a throne, at the foot of which were four large boxes of gold and silver coin, which were intended for the recompense of those poets who obtained his approbation. Amak was a distinguished favourite, lived by the bounty of his patron in great affluence, and kept a number of slaves, and thirty richly caparisoned and trained horses. Thus favoured, he became the object of envy, and Rahald, whom he had recommended, endeavoured to fupplant him. Amak and Rahald were appointed to contend for poetical victory in the sultan's presence; and the fictitious verses of the latter gained the prize, very much to the mortification of the former. Amak lived nearly a century. His principal work is the "History of the Loves of Joseph and Zoëlthah," a romance, founded on the account of the patriarch Joseph, in the Koran. He was most distinguished for his elegies. When the sultan Sriglar was inconsiderable for the death of his father, and disregarded all the elegiac verses of other poets, Amak was sent for to soothe him; and an elegy transmitted by him, when he was too aged.
aged and inflamed for travelling, obtained a decided preference.


AMA. A.M.A. in Geography, a town of Sweden, in the province of Thaeland or Dalland, seated on the Wener-

lake, which divides the town and the market place into two
-parts. The town was founded in 1640; it has a good harbour,
and carries on a considerable trade, particularly in timber, deals and tar. It is the 8th town of those that vote in the diet. N. lat. 58° 50'. E. long. 12° 40'.

AMALAEVA, a river of Siberia, which runs into the

Frozen Ocean. N. lat. 71° 15'. E. long. 125° 14'.

AMALAGO, in Botany. See PIPER.

AMALANCHIOR. See MESSILUS.

AMALACIR, or AMAURY, in Biography and History, king of the Vägoths, was the son of Alaric II.; but being

an infant of five years, at his father's death, in 506, the

throne was usurped by Genafalic, the natural son of Alaric.

Amaeric in the mean while retired into Spain; and the

Vägoths were governed by his grandfather, Theodoric, king

of the Oltrogoths, who expelled Genafalic from the

throne, till his death in 526, when Amaeric assumed the

government. This prince was zealously attached to the

Arian doctrine and cause, and as he had married Clotilda,

the daughter of Clivos, who inherited the pietie and ortho-
doxity of her mother, he used various means, and as the

Catholic historians say, those of violence, to profligate her

to his own opinion and party. In process of time, after

patiently enduring the wrongs she suffered, she
communicated an account of them to her brothers, and told
the truth of her relation by accompanying it with a handker-
chief stained with blood. In consequence of this complaint,
her brother Childebert, king of France, marched with a
numerous army into the territories of Amaleric, defeated
him in an engagement, and forced him to take refuge on
board his fleet. But recollecting that his treasures were left
in the city of Narbonne, he went on shore again, in order to
recover them; but had no sooner entered the city than he
was surprised by the enemy; and seeking safety in a church
belonging to the Catholics, a common fowler ran him
through with a spear, A.D. 531. Some say, that he re-

tired to Barcelona, and was assassinated by his own subjects;
but it is more probable, that the assassin was either a Franks
or some person employed for this purpose by Theudis, who

AMALASONTHA, regent and queen of Italy, was the

daughter of Theodoric the Great, king of the Oltrogoths,

by Audeflida, the sister of Cliviis, and united in her person

the two most illustrious families of the Barbarians.

She was born about the year 498, and in 515 was married to

Eucharit, the half heir of the royal race of the Amali, whom

her father had sent from Spain, and designated for his suc-
cessor; as the fex of his daughter excluded her from the

gothic throne. Eucharit soon died and left an infant son, 

Athalaric, and Amalasontha assumed the guardianship of

her son and of the kingdom of Italy. Her beauty was ani-
mated by manly sense, activity, and resolution. Education

and experience had cultivated her talents; her philosophical

studies were exempt from vanity; and though she expressed

herself with great elegance and ease in the Greek, the Latin,

and the Gothic tongues, she maintained in her counsels an

impenetrable silence. By a faithful imitation of the virtues

of Theodoric, she revived the prosperity of his reign; and

she also strove, with pious care, to expiate the faults, and
to obliterate the least favourable remembrance of his declining

age. The children of Boethius and Symmachus were re-

ferred to their paternal inheritance; the inflicted neither

corporal nor pecuniary penalties on her Roman subjects;

and she deplored the clamours of the Goths, who, at the

end of 40 years, considered the people of Italy as their

slaves or their enemies. The measures of her administration

were directed by the wisdom, and also celebrated by the

eloquence, of Cassiodorus; she solicited and respected the

friendship of the emperor; and the kingdoms of Europe

respected, both in peace and war, the majesty of the Gothic

throne. The education of her son engaged her particular

attention; and she employed three venerable Goths to incul-

cate his mind the principles of honour and virtue, whilst he

was diligently instructed in all those arts and sciences, which

might be either useful or ornamental to a Roman prince.

But the queen's solicitude for her son's improvement and

good conduct, produced a degree of vigilance and discipline,

against which his untractable disposition recoiled, and which

his subjects disapproved. At length when the Goths were

assembled on a public occasion, in the palace of Ravenna,

the youth escaped from his mother's apartment, and

complained with tears of pride and anger of the chastisement,

which his unformed temper had induced her to inflict. The

indignation of the Barbarians was roused, and they accused

the queen regent of conspiring against the life and crown of

her son; and proceeded to demand, that he should be removed

from his present situation, and educated, like a valiant Goth,

in the society of his equals. Amalasontha was compelled to

submit; and the young prince became dissolute and licen-

tious, despised his mother, and contemnated the bodily

measures which she had been pursuing. In these circum-

stances she entered into a negociation with the emperor Ju-

stinian, and prepared for retiring from a scene of discontent

and anarchy. In the mean while she yielded to the impulse

of ambition and revenge; three of the most dangerous male-

contents, who had been separately removed to the frontiers

of Italy, were assassinated by her private emissaries; and

this act increased the popular dissatisfaction and complaint.

At this time the death of her son, at the age of 16, in

consequence of premature inconstancy, left her destitute

of any firm support or legal authority. Instead of sub-

mitting to the laws of her country, and retiring to a private

Retirement, she conceived the design of sharing, with one of her

confidants, the regal title, and of referring in her own hands

the sublunary of supreme power. The eloquent Cassiodorus

announced to the senate and to the emperor, that Amal-

asontha and Theodatus had ascended the throne of Italy.

The issue of this scheme of ambition soon proved disas-

trous and fatal. Indulged by the principal Goths, Theodatus

called the queen to be imprisoned in a small island, in the

lake of Bolsena, where, after a short confinement, she was strangled

in the bath, (A.D. 552,) by the order, or with the connivance


AMA. EK, in Scripture History, was the son of Eliphaz,

Eau's eldest son, by his concubine Timna. Gen. xxxvi.

12—16. 1 Chron. i. 36. He succeeded Gatam, who was one of the dukes in the land of Edom; and was the father of the Amalekites, who inhabited that part of Arabia Petraea, which lay east of the Edomites, with Medan on the

north, Arabia Petraea on the south, Arabia Deserta on the
call, and extended almost as far north as the Dead Sea,

and southward to the Red Sea, or between Havilah and

Shur, 1 Sam. xv. 7. These people had no constant dwelling,
nor do they seem to have had any cities; but they changed
their abode, like the Arabs, and lived in tents or booths, as

they migrated from one part of the country to another, and

sometimes in subterraneous caverns. It is not, therefore,

easy to ascertain the limits of their country. Mr. Reland

5 L places
As soon as the Israelites had crossed the Red Sea, the Amalekites determined to cut them off; and with this view they fell on their rear, as they were marching from Rephidim to Mount Horæb, and fled those who, through weakness or fatigue, were left behind. But this unprovoked assault was very jolly and fiercely avenged upon themselves by Joshua, who defeated them with great slaughter, A. M. 2517, B.C. 1487. Between the Amalekites and the Israelites, there seems to have subsisted an irreconcilable enmity; and it has not been improbably traced to their progenitor’s having been deprived of his birth-right and blessing by Jacob. Under the Judges, they joined with the Midianites and Mebaites against Israel, who were delivered from the former by Ehud, and from the latter by Gideon. Judges, vi. 11, 13. Saul, soon after he was advanced to the throne of Israel, marched against the Amalekites with a large army; advanced to their capital; slew a great number of them, and laid waste their country; but by referring to himself the belt of the cattle and moveables, in violation of the divine command, he laid the foundation of the calamities that afterwards befell him, B. C. 1093. Some fugitives escaped; and we find that some years after this event a troop of Amalekites pillaged Ziklag, which then belonged to David; but he pursued and dispersed them, and recovered the captives and treasures which they had taken. 1 Sam. xxx. The Amalekites were thus gradually reduced; and at last, in the days of Hezekiah, king of Judah, who began his reign, B.C. 726, they were utterly destroyed and scattered by the sons of Simeon, who took possession of their country. 1 Chron. iv. 40—43. Thus the declaration of Balaam, recorded Numb. xxiv. 20, was literally fulfilled; “Amalek was the first of nations; but his latter end shall be, that he perish for ever.” According to the account of the Arabs, Amalek was the son of Ham, and grandson of Noah; he was the father of Ad, and grandfather of Schedad. Calmet inclines to this opinion; for he says, it is not easy to conceive how the Amalekites, if they were merely the posterity of the son of Eliphael and grandson of Esau, could be so numerous and powerful as these people are, as to be the Haitiites departed out of Egypt. Befides, when we call to mind the previous wars of the Amalekites with Chedorlaomer (Gen. xiv._4); when we consider that Balaam calls them the first, or beginning, of nations; when we reflect, that Moses never flays them the brethren of Israel or Edom; that the latter never held any confederacy or friendly correspondence with them in all their wars, but suffered them to be invaded and butchered by Saul, without affording them any assistance; and, lastly, when we find them always mentioned with the Amorites, Philistines, and other Canaanitish nations, and with them involved in the same curfe, we can scarcely forbear looking upon them rather as a tribe of those nations, than as the descendants of Esau, who probably formed but a small tribe, and not permanently confpicious. Of the Amalek, destroyed by Saul, the Arabians give the following account. He was the father of an ancient tribe in Arabia, which contained only the Arabians called pure, the remains of whom were mingled with the posterity of Joktan and Adam, and so became Mofranabes or Moslanabes, i. e. Arabians blended with foreigners. They believe, that Goliah, who was overcome by David, was king of the Amalekites, and that the giants who inhabited Palestine in Joshua’s time, were of the same race; and that part of them retired into Africa, while Joshua was living, and settled on the coasts of Barbary. The son of Amakk was Ad, a celebrated prince among the Arabians, whom some make the son of Us, and grandson of Aram, the son of Shem. Calmet. See Adites.

AMALFI, or AMALPHI, an ancient sea-port town and archiepiscopal city of Italy in the kingdom of Naples, and Principato citri, situate on the west coast of the gulf of Salerno. N. lat. 40° 35’. E. long. 15° 20’. The most generally received opinion of the origin of this city is, that about the middle of the 4th century a considerable number of Roman families, either with views of emolument or by compulsory orders of the emperor, left Rome, and embarked for Constantinople; but meeting with adverse storms, they were cast away on the shore of Salerno; and determined to form a settlement on the present site of Amalfi. This seafaring and rising colony was guarded by impetuous mountains and inaccessible coasts, from the first fury of the Lombards, who seldom attempted the conquest of a maritime people. In the year 825 this small republic, under the patronage of the eastern emperor, attained a degree of wealth and reputation which invited the attack of Sico, prince of Salerno, who marched a body of troops by night, surprized Amalfi, and carried off the greatest number of its inhabitants to supply the place of these, of whom Salerno had been deprived by an epidemic disorder. The Amalfitans, taking advantage of the absence of the chiefs of Salerno, in an expedition against the Beneventans, armed themselves, and, after burning and plundering Salerno, marched back in triumph to their native abodes. Being thus restored to their country, they formed a better constitution and code of laws, and adopted various measures likely to prevent internal discord, and the assault of foreign enemies. Under these new regulations Amalfi rose to the summit of its military and commercial glory. Pope Leo IV. found the Amalfitans an useful ally in his war with the infidels, and conferred upon the commonwealth the distinguishing title of defender of the faith. The Neapolitans bought their friendship, and the mussulmen courted alliance with them. Their situation was favourable for commerce; and their attention to naval affairs induced the emperor of Constantinople to establish a court at Amalfi for the decision of all maritime disputes, and the code and reports of this court obtained authority through this part of Europe. The merchants of this town engaged the trade of the Levant, and transferred the commercial business of the world in a lucrative and exclusive manner. The importance of Amalfi, in its various maritime and commercial connections, led to the establishment of the order of knighthood, under the patronage of St. John of Jerusalem, the members of which were afterwards called knights of Rhodes, and since of Malta. The charitable traders of this port obtained leave of the mussulmen chief at the caliph’s court, in 1020, to erect two small hospitals and a chapel for the use of votaries coming from the western parts of Europe. From Paifano, says Mr. Swinburne, in the neighbourhood of Amalfi, was derived the first knowledge of the mariner’s compass.

The flourishing state of the Amalfitans exposed them to various assaults; but they derived from the holy war temporary
potary rescued from the stake, and of their enemies, and thus were in some degree remunerated for their charit.

able zeal on behalf of the cause of the Word. From the year 1692, the revolution of this state, and should I add, of its republican constitution, it has been the constant maxim of every power at variance with the constitution, to vilify it by its history; for they carried away the portrait of the Coat which was formed by John the Second, the merchant. Amalli had brought it as a curiosity from Cranes, but it had obtained no authority at Amalli, where the Spanish code was in force. Amalli, after the destruction of its liberty, found that its commerce declined, and was entirely lost to this coast in the reign of Joan the First. The alienation of its lordship to feudal proprietors was without doubt a circumstance which hastened its decline. The death of pope Martin V. (Columna) had the first grant of Amalli; the Sanfeverini the next; then the Ortoni acquired possession; and lastly, Piccolomini enjoyed it with the title of duke.

Amalli is now merely a shadow of what it was in magnitude, connections, and real importance, when it was in its flourishing state: when, from a narrow, though fertile, extent of land, by means of an accessible and open sea, it supplied the western world with the manufactures and productions of the east; when 50,000 citizens were numbered within its walls; when it was more abundantly than any other city provided with gold, silver, and the objects of precious luxury; and when its settlements in Constantinople, Antioch, Jerusalem, and Alexandria, acquired the privileges of independent colonies. Its buildings are not remarkable for elegance and size, and contain at most 1000 inhabitants, who seem to be in a poor condition. It presents few objects that can recall any idea of its ancient prosperity. The cathedral is not an agreeable building; under the choir is the chapel and tomb of the apostle St. Andrew, in whose honour the edifice was dedicated, when cardinal Capua, in 1208, brought his body from Constantinople. Swinburne's Travels, vol. ii. p. 226—230. Gibbon's Hist. vol. x. p. 280.

AMALGAM, Amalgam, Fr.—Amalgame or Quicksep. Germ.—Amalgamata, Ital.

The word amalgam, from αμαλγαμαι, amalgame, is a metaphorical term invented by the ancient chemists, and retained by the moderns to signify any metallic alloy, of which mercury forms an essential constituent part. Hence, as mercury remains fluid at the usual atmospheric temperature, the theory and general phenomena of amalgamation may be said to be those of the solution of metals in mercury.

All that is peculiar to the several amalgams, such as the method of preparing them, their characteristic physical and chemical properties, and the uses to which they are applicable, will be detailed hereafter in the article MERCURY; but besides these there remain to be described a number of general facts and appearances common to all amalgams, which may be treated of with more propriety here than elsewhere.

The knowledge of the solvent power which mercury exercises over various metals, especially gold, was not only known by the ancients, but, as we learn from Pliny, was actually employed by them in the separation of gold from the base metals and in the gilding of silver. Vélerco and Alonzo Barba, in the 16th century, applied the process of amalgamation in the great way to the extraction of silver from the ores of Peru and Mexico; but of the early chemists, Dorrichius, Osiander, Beecher, and Stahl, are the only ones who have treated of various amalgams with the view of comparing their resemblance, of noting their peculiarities, and thence deducing a few general axioms for the benefit of science. Roselle and Pufchel, following the steps of their predecessors, discovered the crystalline nature of these metals from their solutions in mercury, and Stahl has since devised this department of chemical philosophy with a vast number of curious, correct, and important observations.

§ 1. Method of preparing Amalgams.

The precautions required in the preparation of an amalgam depend considerably on the degree of affinity existing between the mercury and the metal with which it is acted upon. When the affinity is very powerful, it is the case with gold and silver, the facility of the mercury with any other condition will effect a combination even at the usual atmospheric temperature. Thus half-gold, by simple trituration with mercury will form an amalgam in a few minutes, and pieces of gold, silver, or tin, even of considerable thickness, by being immerged in pure mercury will, in a few days without trituration, be wholly dissolved. Other metals of stronger cohesion or weaker affinity require the assistance of heat to make them amalgamate, such as zinc and antimony; for this purpose the zinc is melted in a crucible, and being then withdrawn from the fire, is allowed to cool till it is upon the point of becoming solid, at this instant the mercury, previously heated to boiling, is flumed in, and the mixture is kept fluid by a gentle heat till the combination appears to be perfect: it is of consequence to the safety of the operator, and the success of the experiment, that the mercury should be previously heated, otherwise the difference of temperature between the two metals at the time of mixture will be very apt to produce an explosion. The actual fusion of the zinc or antimony is, however, by no means absolutely necessary; the metal in small pieces being put into a crucible, the proper quantity of mercury is then to be added; the crucible is thus filled up, and the nafs being then exposed to a heat a little less than that required for the volatilization of mercury, the amalgamation will in a short time be completely effected. Those metals, however, that require a full red heat for their fusion, will volatilize with explosion any mercury that is attempted to be mixed with them while in this state, such, for example, is copper. This is, therefore, best amalgamated in the moist way; for which purpose take a boiling hot saturated solution of sulphate of copper, pour it into a glafs or Wedgewood ware mortar, and add mercury and iron filings; the iron will decompose the sulphate of copper, and precipitate this latter metal in a finely divided state, which, by the heat and moderate trituration will unite with the mercury, and the combination may afterwards be perfected by fusion at a gentle heat in a crucible. Amalgams may be made either solid or fluid, according to the proportion of mercury that enters into their composition; the quantity of this last, however, that is required to give the amalgam a fluid state, is different for each metal, for the more powerful the affinity the less is the quantity of mercury required.

§ 2. Phenomena observable during Amalgamation.

All the appearances that happen during the condensation of metals with mercury indicate a real solution of one in the other, owing to the chemical attraction between the bodies thus uniting. In proportion to the readiness with which any metal tends to amalgamation is the force with which it adheres.
hers to mercury when applied to its surface; and, when a plate of this, suspended to the arm of a balance, is brought in contact with mercury, a greater or less counterpoise will be required to break the adhesion, as the chemical affinity between the two is stronger or weaker. (See Adhesion.) Nor is this adhesion an effect taking place merely at the place of contact, but an actual penetration or absorption of the mercury is produced by the other metal: thus, when a plate of gold is placed in contact with mercury, not only the surface of adhesion is whiten by the mercury, but, after remaining in this state a few hours, the gold will become brittle, and particles of mercury may be observed through its whole bulk, having no doubt been drawn up through its minutest pores by the force of chemical attraction. 

During amalgamation, as is the case in all other instances of simple solution, a considerable quantity of caloric is absorbed, producing the sensation of cold, and lowering the thermometer. This is rendered very sensible to the touch, by rubbing together in the palm of the hand equal parts of an amalgam of bismuth and an amalgam of lead; the two folds will almost immediately become fluid, and a very considerable cold will be produced. The same may be shown by the thermometer: if a quantity of mercury is heated to about 80° Fahr. and the bulb of a thermometer wrapped round with tinfoil is then immersed in it, a speedy solution will take place, and at the same time the mercury in the thermometer will descend a few degrees.

Another remarkable phenomenon of amalgamation is the disposition to oxidize which both metals exhibit while the solution is going on, and even after it is completed: it is impossible to combine bismuth, tin, or lead, with mercury, without observing as the process advances the formation of a quantity of black powder, which rises to the surface of the metals, and is a compound oxd of mercury and the other metal. Upon this also depends Dr. Priestley's simple and ingenious method of separating from mercury a large proportion of the lead, &c. with which it is unically contami-

ated; for this purpose nothing more is necessary than agitation of the mercury in a bottle, with a little water, till it ceases to be discoloured, or, in other words, till the amalgam is almost wholly decomposed. Hence too is explained the observation of Isaac Gadolius, that gold and silver may be calcined in a reverberatory furnace, if they have been previously mixed with mercury.

§ 3. General Properties of Amalgams.

The specific gravity of amalgams, as of all other alloys, is different from the mean specific gravity of their component parts: sometimes it is greater, at other times less; and, according to Gellert, the amalgam of silver is of superior specific gravity even to mercury, the weightiest of the two ingredients. This takes place, however, only at a low temperature; for it was found by Sage that the amalgam of silver, when heated, floats on the surface of mercury.

The more decidedly crystalline form of amalgams, owing to their soft or semi-fluid state, at a moderately warm temperature, is a circumstance that remarkably distinguishes them from the pure metals. Any metal, when melted and cooled very slowly, will exhibit in its fracture a crystalline structure, and the crystals of which it is composed may, by particular management, be exhibited in a state of separation from each other; but similar appearances may be produced with much greater ease in amalgams. All amalgams are brittle, and any of them, being broken, will exhibit a granular or laminated texture, which, by the microscope, will be found to be owing to a multitude of minute crystals, applied by their surfaces to each other, but not adhering with any considerable force. Induced by these appearances, M. Sage, after many trials, succeeded in obtaining regular crystals of most of the amalgams by the following method. Having prepared a very fluid amalgam, by adding four, five, or six times a greater quantity of mercury than of the other metal, he put it into a retort, and proceeded to distillation in a sand-bath, till a fourth, or even a third, of the mercury had been driven off; the residue, being then allowed to cool very gradually, was found regularly crystallized at the bottom of the vessel. He thus obtained silver amalgam in the form of articulated tetrahedrons and alumina fociocla-

drons, resembling the native dendritic silver. In the same manner the amalgams of gold, bismuth, tin, and zinc, afforded the form of regular crystals, but those of copper, arsenic, and antimony, related to crystallize.

Amalgams may be decomposed by heat, but the last portions of mercury are not driven off without a much greater heat than is required for the volatilization of pure mercury. Hence a large proportion of the volatile metals, such as zinc and arsenic, unites with the mercury, and is carried over with it, and even the more fixed ones, as gold and silver, are thus rendered in part volatile.

As each metal has its peculiar affinity for mercury, it is obvious that an amalgam may be decomposed by the addition of a metal that has a stronger attraction to mercury than that of which the amalgam is composed: upon this subject, however, no accurate experiments have as yet been made, which is the more to be regretted, as it would much aiding the investigation of the difficult but important subject of metallic alloys. One amalgam may even decompose another in a great measure, as is the case with the amalgams of lead and bismuth: these being made separately, with a quantity of mercury equal to the other ingredient, will be solid and friable, but, upon mixture, will combine into a fluid scarcely to be distinguished by its appearance from pure mercury: by standing some days, however, in a temperature not exceeding 40° Fahr. cubic crystals will be deposited of almost pure bismuth. For other particulars see the several amalgams under the word Mercury. Encycloped. method. art. Amalgame.

AMALGAMATION, in Metallurgy. See Silver ores, extraction of.

AMALI, in Ancient Geography, a people comprehended under the appellation of Genae.

AMALIA, in Entomology, a species of Papilio in the Nymphalidae section, with indented wings: upper side brown, underside yellow with two streaks and spots of blue, the lower ones marked with black dots. Fahr. Ent. Syll. tom. iii. p. 1. p. 129. &p. 398. Obs. In addition to this specific character Fabricius says, above the brown colour of the wings inclines to fulvous, and the posterior pair is marked with an obelolate row of fulvous spots. Beneath, the apex of the anterior wings has a black mark, and two blue spots with a black character in the middle of each; the exterior margin, two streaks, and seven spots on the posterior wings are blue, the latter with black dots in the middle. Inhabiters Sierra Leon.

AMALLOBRIGA, in Ancient Geography, a town of Spain, upon the Derius, to the south-east of Pallentin.

AMALRIC, Auger, in Biography, an ecclesiastical historian of the 14th century, dedicated to pope Urban V., a history of the popes, under the title of "Chronicon Pontificale," brought down to pope John XXII. and said to be collected from more than 200 writers.

AMALTHEA, in Mythology, the Cumean Sibyl, who
is said to have come from a far country to Taquinius Super
tious, and to have offered for sale nine books of Sibylline,
or prophetic oracles. Upon Taquin's refusal to give her
the price the asked, she went away and burnt three of
them. Returning soon after, she demanded the same price
for the remaining six. The king ridiculed her for her folly,
upon which she went and burnt other three; and returning
asked the same price for the three which remained. A
Gellius (l. 157) says, that the books were burnt in the
preence of the king. Taquin, surpised by this strange
conduct, consulted the augurs, who, regretting the loss of
the books which had been destroyed, advised the king to
give the price, which the woman required. Amalthea, hav-
ing surrendered the books, with a desire that they might be
carefully kept, disappeared, and was never afterwards
seen. Dionys. iv. 62. Laetiantius, i. 6. Gall. i. 19. Pliny
(xii. 13. t. 27.) says, that the burnt two books, and only
preferred one. See SIBYL.

AMALTHEA, the daughter of Melilias, king of Crete,
and nurse of Jupiter, whom she is said to have fed with
goat's milk and honey. According to others, Amalthea
was a goat which nourished Jupiter, and whom, in com-
penence for her attention, he translated into the heavens, and
thus she became the constellation which bears this name.
It is added, that one of the horns of this goat was given to
the daughter of Melilias, as a reward for their kindness,
and that it had the peculiar property of furnishing them
with whatever they wished for; and hence the Greeks for-
med of it their cornucopia, or horn of abundance.

AMALTHEO, in Biography, the name of a family of the
16th century, celebrated for literature originally from Por-
done in Friuli, and branched out into several places in that
province. In this family there were poets, physicians, and
professors of belles lettres. The most distinguished were the
sons of Francesco Amaltheo, professor of belles lettres in
Sicile; viz. Girolamo, or Jerom, born in 1507, at Oder-
zo in the Trevisan, who was solicited by the queen of Po-
land to be her physician, but declined it. He taught med-
icine at Padua, and practised as a physician in several
towns of Friuli, till 1574, when he died at Oderzo highly
honoured by his townsfolk. He so much excelled in Lat-
in poetry, that he is placed by Muretus at the head of all
the Italians who excelled their talents in this way. The
famous epigram of "Acon and Leonilla," is by this
author. Girolametto, or John Baptista, was born at Oderzo
in 1525, educated at Padua, and at the age of 20, called to
Venice to instruct the youth of the Lippomana family in
dele literature. His own studies comprehended, besides the
Greek, Latin, and Italian languages, philosophy, jurispru-
dence, and theology. In 1554 he accompanied the Vene-
tian ambassador, Michele, to England; he was afterwards
secretary to the republic of Ragusa, and accompanied the
cardinals deputed to the council of Trent, as first secretary
to pope Pius IV. He died at Rome in 1573, much la-
mented by the learned men of his time, by whom he was
highly esteemed for his genius and erudition. His Latin
poems, first printed in 1552, gave him a reputation equal
to that of his brother; and he likewise wrote poems in his
own language that are much valued. The Latin poems of
these two writers, and of another brother named Cornelius,
who was a physician, are contained in the first volume of the
"Delicie Poet. Italor," and were published in a separate
volume, at Venice in 1627, and at Amsterdam, in 1689.

AMAMA, SIXTUS, an eminent biblical critic of
the 17th century, was born in Wett Frieland, educated un-
der Drusius in the university of Franeker, and obtained a
very considerable acquaintance with the oriental languages.
Wood (Athen. Oxoni. n. 612.) says, that about the year
1617, he visited Oxford, resideid in Exeter college, and
taught Hebrew in the university. Upon his return to his
native country, he was appointed proctor of the Hebrew
language in the university of Franeker, where he continued,
notwithstanding carnal solicitations for his removal to
Leiden, in order to succeed Erpenius, till his death, which
happened in December 1629. His first work was a criti-
cism on the Vulgate translation of the Pentateuch, printed
in 1619, in Franeker, and entitled, "Confutat Vul-
gate Latina Editionis Pentateuchi." This was part of a
plan which he had formed with a view to a "General
Confutation of the Vulgate Version of the Scriptures," which
the council of Trent had declared authentic. But his at-
tention was diverted from the completion of his design by
a collation of the Dutch version of the Scriptures, with
the originals, and the most approved translations. The
result of this collation was published in 1603, in the Dutch
language, under the title of "Byblische Conferenctie." Whil-
Mil he was thus engaged, he received information that
father Mercurius, in vindication of the Vulgate, had writ-
ten a refutation of his criticism on the first six chapters of
Genesis, and he, therefore, refuted his original design;
and, in 1627, published a letter to Mercurius, and in 1628
a work, entitled, "Anti-Barbarus Biblius;" or containing
a farther reply, together with a confutation of the Vulgate
on the historical books of the Old Testament, on Job, the
Psalms, and the books of Solomon, to which are added
difficulties on particular subjects. This book was re-
printed at Franeker, in 1630, in 1656, with a criticism of
the Vulgate upon Isaiah and Jeremiah. Amama also wrote
a learned dissertation, "De Nomine Tetragrammaton," which
was published in 1620, at Franeker in 1620. So successfully
did he expose the defects and errors of the Vulgate, and so
carriedly did he recommend the study of the original
languages of the Bible, that it was decreed by some synods,
that those only should be admitted to the ministry, who
understood, at least in some degree, the Hebrew and Greek
texts of the Scripture. Amama also evinced his solicitude
for the honour of the university at Franeker, by his at-
tempts to reform some irregularities of conduct that pre-
valed in it. He was so much respected by his countrymen
that, after his death, they testified their regard for his
memory by their liberality to his children. Gen. Dict.

AMAMASSIUS, in Ancient Geography, a town of the
isle of Cyprus, in which they worshipped Apollo Thyaces.

AMAM-SAMA, a town of Judah, in the tribe of
Jewish State.

AMAN, in Commerce, a sort of blue cotton cloth,
which comes from the Levant by the way of Aleppo.

AMAN, in Ancient Geography, a town of Palestine, in
the southern part of the tribe of Judah.

AMAN, in Geography, a sea-port town of Africa, on the
Atlantic, between Cape Ger and Cape Cantin, in the king-
don of Morocco.

AMAN, a district of Sumatra, about the centre of
the island.

AMANA, in Ancient Geography, a mountain of Palestine,
on the other side of Jordan, in the tribe of Manassheh.

AMANA, a town of Asia, in Media, according to Pil-
lamy.

AMANCE, in Geography, a town of France, in the de-
partment of the Meurthe, and chief place of a canton in the
district of Nancy, three leagues south-west of Chaten-Sa-
lins, and 12 north-east of Nancy.

AMANCE is also a town of France, in the department of
of the Upper Saone, and chief place of a canton in the district of Jufsey, two leagues east of Jufsey.

AMANDER, MARK ANTHONY GERARD, SIEUR DE SAINT, in Biography, a French poet of the 17th century, was born at Rouen in Normandy in 1694. His father commanded a squadron of ships in the service of queen Elizabeth for 22 years, and his two brothers were killed in a battle against the Turks. As for himself, his whole life was spent in a succession of travels in Europe, Africa, and America, which, whatever might be the annulment or information he derived from them, were injurious to his fortune. His works were chiefly miscellaneous poems, most of which are of the comic or burlesque, and of the gallant or amorous kind. Three volumes of his poems were published in 1650 at Paris; the first in 1627, the second in 1643, and the third in 1649, under the title of "Les Œuvres de St. Amand;" and they have passed through several editions. His "Stanza upon the Pregnancy of the Queen of Poland and Sweden" were printed in 1620; his "Mois fayed, a heroic Idyllium," Paris, 1653, 4to; and 1650, 12mo: his "Stantras to Mont. Cornelle, upon his Imitation of Jefus Chrift," Paris, 1656, 4to; and his "Rome ridicule," printed several times in 4to and 12mo; and when it was printed clandestinely at Paris in 1643, the printer was thrown into prison. The earlier part of Amand's life was licentious and debauched; but towards the close of it he was reformed, in consequence of the penury and distress of his circumstances. M. Birotte, in his notes upon Boileau, says, that he wrote a poem upon "the Moon," in which he complimented Lewis XIV. upon his skill in swimming, in which he was accustomed to exercise himself in the Seine; but the king could not bear to hear this poem read to him: and this circumstance is said to have mortified the author to such a degree that he did not long survive. He died in 1661, at the age of 67 years. He was admitted a member of the French Academy from its first foundation in 1633; and he excelled from making a speech upon his introduction, on condition of his compiling the comic parts of the Dictionary which the Academy had undertaken, and collecting the grotesque and burlesque terms. Boileau represents the genius of St. Amand as adapted to works of low humour and satire; but he adds, that he spoils all by the mean and trivial circumstances which he introduces. Gen. Dic. Amand, Pierre, born at Riez in Provence, about the middle of the 17th century, practiced midwifery with credit at Paris. In the year 1705 he published "Nouvelles Observations sur la Pratique des Accouchemens," in 8vo. of which a second edition appeared in the year 1715. He relates the cases of several women who had extrauterine factures, and gives an account, accompanied with engravings, of a kind of net he had invented for extracting the heads of factures, when left in the uterus, separated from the body. The invention is ingenious, but has long been laid aside for the crotchet, by which the extraction is performed with much greater ease and certainty. Vido Eliaus Histo- riques sur l'Art des Accouchemens, par M. Suc.

Amand, St. in Geography, a town of France, in the department of Cher, ficated on the river Cher, 20 miles south of Bourges. N. lat. 46° 45'. E. long. 2° 30'.

Amand, St. is also a town of France, in the department of the North, in which was lately a celebrated abbey. When the combined forces of Prussia and Austria invaded France in 1752, it was taken by them, but evacuated afterwards in their memorable retreat. It was given to France by the treaty of Utrecht. It is situated on the river Scarpe, seven miles north of Valenciennes. N. lat. 50° 27'. E. long. 2° 35'.

AMAND, St. a small town of France, in the diocese of Auxerre.—Also a small town in the diocese of Clermont.

AMANDA, in Ancient Geography, a country of India, which, according to Ptolemy, contained various people, under the denominations of Samobrata, Sambruceni, Bifarnbrit, Ophi, Antixeni, and Taxilb.

AMANDAVA, in Ornithology, a species of Fringilla that inhabits Asia, and is correctly described by Linnaeus, as being of a brown and reddish color, spotted with white. It is about the size of a wren, or four inches in length; the upper part of the plumage brown, with a mixture of dull red, the under part of the same colors, but paler, except the middle of the belly, which is darker. Every feather in the upper wing-coverts, breast, and sides, has a white spot at the tip. The bill is dull red, tail black, and legs pale yellow. The female has a mixture of white on the throat and fore-part of the neck, and the belly is pale yellow.

This species is frequent in Bengal, and has been called the Bengal finch (or Amaduva). In allusion to this, Buffon names it Bengalus punctatus, and Buffon Bengal piquet.

There is a variety of this species, the Amandava b. of Linnaeus, hitherto found only in Bengal, which is said to be entirely brown, and without spots. This is the Bengalus fulcatus of Buffon, and Bengal Brolum of Buffon. T. enl. 115. f. 2. but it seems this variety is not always immaculate. Some have a small white spot at the tip of each of the wing covert feathers, and there is in general a little white on the breast also. The female is brown, without white spots: the legs, as in the preceding, yellowish.

AMANDRA, in Ancient Geography, a town of Ethiopia, placed by Suidas in the territories of king Cepheus.

AMANGO Cape, in Geography, lies on the south-west coast of the island of Corisco, and forms the limit of Bonifacio bay. It is easily known by a large castle, and two rocks, which are situated just below the heaven.

AMANGUCHI, a town of Japan, the capital of the kingdom of Nagaro, and one of the richest towns of Japan.

AMANIA, in Ancient Geography, a name given to Arabia Felix, or to that part of it called Yemen.

AMANIBO, a town of South America, on the coast of Guiana, between Paramaribo and Cayenne.

AMANICÆ, or Amans, or p蝥æ, in Ancient Geography, denote defiles in the mountain Amanus.

AMANITA, in Botany. See Agaricus.

AMANNIA. See AMANXIA and PEPLIS.

AMANOA, in Botany, a genus of the peniantria monogynia class and order. Its characters are, that the calyx is quinquepartite; no corolla; the germen is triangular, the stigma trigonous, concave, and fimbriated. There is one species, var. A. genuenls. Anbl. pl. gui.

AMANOB, in Ancient Geography, a people placed by Ptolemy in Sarmaia, in the vicinity of the Roxolanza.

AMANOIDES, a promontory of Cilicia, between the rivers Pyramus and Cidius.

AMANTEA, a sea-port town and bishop's see of the kingdom of Naples, on the west coast of Calabria Citra, near the bay of Euphemia. N. lat. 30° 15'. E. long. 16° 27'.

AMANTHONE, in Entomology, a species of Papilio in the section Danae Candinis, with round wings, white and black at the tips. The margin of the posterior wings on the under side is brown. Inhabits South America.

AMANITA, in Ancient Geography, a town in that part of Epirus called by Ptolemy Orcilides, and since denomi-
AMANUS, the name of a mountain, situate at the extremity of the Mediterranean, near the gulf of Illus, and separating Cilicia from Syria. The defile or pass of this mountain, which forms a communication between these countries, is called Portus Amnianus, or Pyli Cilicia, the Gates of Cilicia. The Persian army, under Darius, marched through this defile, while that of Alexander was encamped at Illus, after having passed the Strait of Mount Taurus, called also one of the Gates of Cilicia. This defile is also famous for the victory gained by Septimius Severus over Tefennius Niger. This mountain extends between the 37th and 38th degree of latitude, and its direction is from the north-call to the south-west. Some geographers have made it a branch of Mount Taurus. Stephanus Byz. says, that it took its name from the Greek word ἄμαν, meaning, because Oreus was delivered here from the furies which agitation him after the affiliation of his mother.

AMANUS, or OMANUS, in Mythology, the deity of the ancient Persians, which they believed to be the sun, or the perpetual fire, which they adored as an image or emblem of the sun.

AMANZIRIFDIN, in Geography, a town of Arabia, 440 miles call of Mecca, and 584 north-call of Mocha. N. lat. 26° 25'. E. long. 67° 30'.

AMAPALLA, a sea-port town in the province of Guatemala, in North America, situate on a gulf of the same name, 220 miles south-call of the town of Guatemala. The inhabitants of this town and its vicinity carry on a considerable trade in cochinchine, cocoa, hides, and indigo, and the other commodities of the province. N. lat. 12° 30'. W. long. 86° 40'.

AMAPALLA Bay, or Gulf; lies on the western coast of Mexico, in North America, south-call from Guatemala, and north-call from Realejo, in the direction of the coast. The entrance into the bay is between two peninsulas, which approach near each other, and defend the bay from the ocean; but within it is very spacious, extending from north-call to south-call. It forms the harbour of the town of Amapalla, sometimes called Fonseca or Penfeen. The coast, within the limits of the gulf, and without the bay, is free from rocks and shoals, and affords good anchorage; on the well side of the bay there is a hill, called the Hill of Amapalla, with a port at the foot of it called Martin Lopez. In the Gulf of Amapalla are two islands; one, called Mangera, is a high round land, encompassed by rocks, with a small sandy creek on the north-call side; and the other, called Amapalla, and the largest, is about the distance of two miles. The gulf, though it runs a great way beyond this island, is not deep enough to receive ships of burden. Malham's Gaz.

AMARA, in Ancient Geography, a town of Arabia Felix.

AMARA INDICA, in Botany. See Gomphrena.

AMARACUS. See Origanum.

AMARANTE, in Geography, a considerable and pleasant town of Portugal, in the province of Esti Moito, on the river Tamega, 23 miles south-call of Braga, and 38 call north-call of Porto. N. lat. 41° 19'. W. long. 6° 54'. It contains about 4000 inhabitants, and is situated in a very delightful country.

AMARANTH, an order of knighthood, instituted in Sweden by Queen Christina in 1653, at the close of an annual feast, celebrated in that country, and called Wran)

This feast was solemnized with entertainment, balls, masquerades, and the like diversions, and held from evening till the next morning. That project, thinking the name too vulgar, changed it into that of the feast of the gulf, because each person here represented some deity according to a bill to his lot. The queen assumed the name of Amaranthe, that is, unchanging, or immortal. The young nobility, dressed in the habit of nymphs and shepherds, feved the gods at the table. At the end of the feast, the queen threw off her habit, which was covered with diamonds, leaving it to be pulled in pieces by the masques, and in memory of this gallant feast, founded a military order, called in Swedish gyllenstaff, into which all that had been present at the feast were admitted, including sixteen lords, and as many ladies, besides the queen. Their device was the cypher of amaranthe, composed of two A's, the one direct, the other inverted, and interwoven together on a jewel of gold adorned with diamonds; the whole inclosed by a laurel crown, with this motto, doce nulla memoria. The jewel was worn by the knights either in a gold chain, or a crimson or blue ribbon. Bullstrode Whitlock, the English ambassador from Cromwell to the court of Sweden, was made a knight of the order of amaranthe. On which account it seems to be, that we sometimes find him so called Sir Bullstrode Whitlock.

Amaranth denotes a colour inclining to purple, derived from the flower of this name.

AMARANTH, Glob., in Botany. See Gomphrena.

AMARANTHUS. See Phyma.

AMARANTHIO LUSITAN. See Gomphrena and Illecebrum.

AMARANTH Thomides. See Celosia, Gomphrena and Illecebrum.

END OF THE FIRST VOLUME.