

Adjustable Planer Vises

Many jobs that are machined on the planer could be done better, and in less

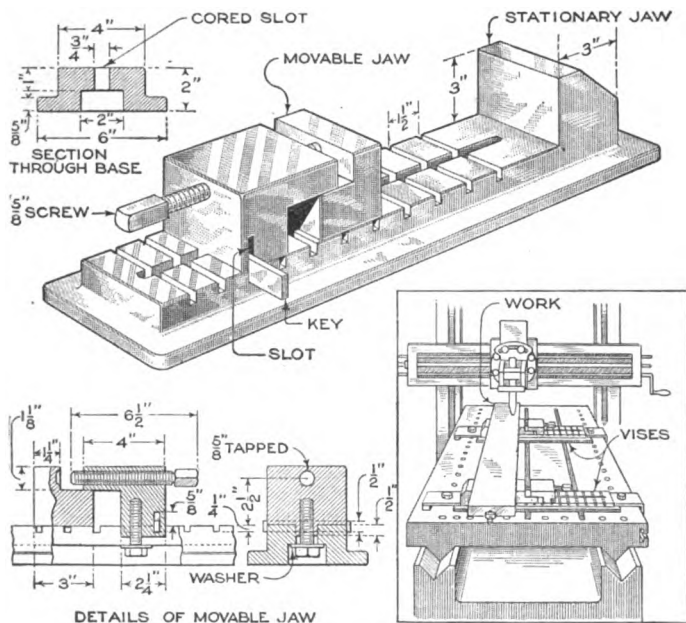
upon the thickness and length of the work; they can be bolted anywhere on the table so as to hold odd-shaped work at any angle. The length of these vises is left entirely to the requirements of the user; some will prefer them made to the width of the table, and others will not want them quite so long.

The body and stationary jaw are cast in one piece from a simple pattern, the resulting casting being machined on the top, bottom, and face of the jaw. On the top face of the jaw slide, a number of key slots, $\frac{1}{4}$ by $\frac{1}{4}$ in., are cut, $1\frac{1}{2}$ in. apart.

The sliding, or movable, jaw is built up in two parts, the front member being the real jaw, while the rear piece serves as a buttress, and as a nut for the clamping screws. The rear block is shaped so as to overhang and slide on the tongue of the front member, and serves to hold the latter down to the slide. The

countersunk screw seat is the only means used to hold this loose jaw centrally, which is free to float, to adjust itself to the face of the work. The rear part of the sliding jaw has a tongue that fits into the slot in the base, to which it is loosely clamped by a screw or bolt, as shown.

The key, which fits loosely, is used to form an absolute buttress and prevents the jaw from sliding backward while the clamping screw is tightened.—J. V. Romig, Allentown, Pa.



Adjustable Vises for the Planer, That Make It Possible to Set Up and Remove the Work Quickly with a Considerable Saving in Time, Particularly on Repetition Work

time, if the work were held in vises instead of being bolted to the planer table. The work is generally bolted to the table because suitable vises are lacking, the only ones available being generally of too limited capacity for wide work.

The drawing shows a type of planer vise that permits rapid set-up, which is an advantage when several pieces of the same kind are to be worked. For a planer having an 8-ft. stroke, three or more of these vises should be used, depending

Testing New Refrigerating System

When testing a new installation of coils in a refrigerating system, a small, portable, air-cooled, motor-driven air compressor is used to provide the necessary test pressure, which, depending upon the contract specifications, runs up to 200 lb. and over. A suitable connection is made between the coils and pump for the insertion of a high-pressure gauge, and also an ammonia-charging valve. Pressure is pumped into the coils, using fresh air, for the first test. If there are any serious leaks, they will be detected immediately

by the hissing of escaping air. Should there be no such leaks, watch the pressure gauge and see whether the pressure falls very much, remembering, however, that a slight fall in pressure will accompany the cooling of the highly compressed air. After this slight drop, which should take place within a half hour, the pressure should remain constant. If this test is satisfactory and the pressure stands up well, discharge the air, and connect a drum of ammonia to the ammonia valve between the air pump and the coils, and allow a small amount of the ammonia to escape into the closed-up system, enough