

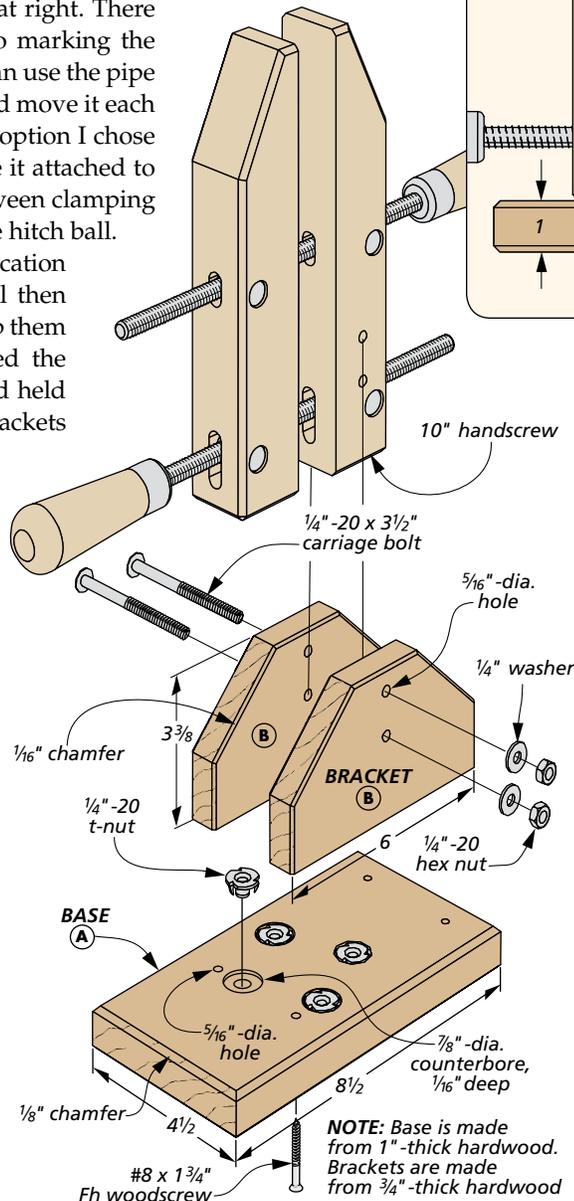
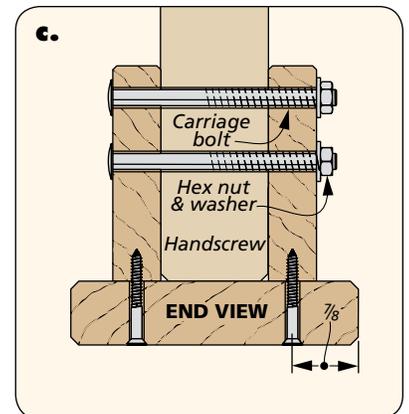
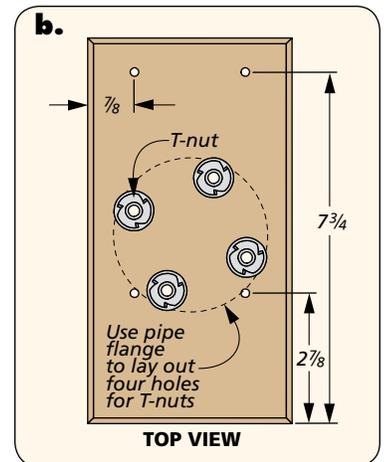
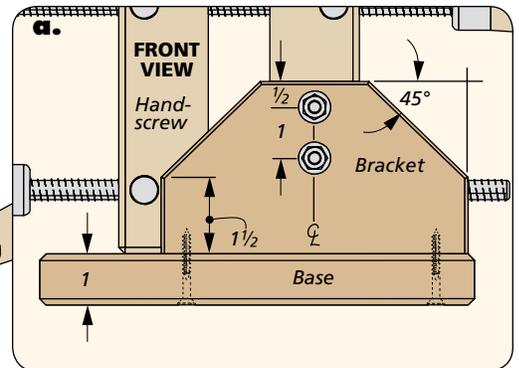
Online Extra

multi-function vise Handscrew Mount

As a stand-alone project, the swivel vise from Woodsmith No. 219 is an incredibly useful shop accessory. But you can give the vise even more versatility by building a couple additional clamping fixtures. The first fixture (shown at right) is a mount for a standard 10" handscrew.

QUICK CONSTRUCTION. Start by cutting the base and two brackets to size. To match the look of the vise, I chamfered the edges of these parts, as shown in the drawings at right. There are a couple of options when it comes to marking the holes in the base for the pipe flange. You can use the pipe flange from the machinist's vise mount and move it each time you switch between fixtures. Or, the option I chose was to purchase an extra flange and leave it attached to the base. This makes it easy to switch between clamping fixtures by unscrewing the flange from the hitch ball.

DRILL HOLES & ASSEMBLE. With the flange location marked, drill the holes in the base. You'll then drill the counterbores for the T-nuts and tap them in place with a hammer. Next, I attached the brackets to the base with some screws and held one leg of the handscrew between the brackets to mark and drill the through holes for the bolts (detail 'a'). Secure the handscrew with two carriage bolts, nuts, and washers, and it's ready to use.



Materials, Supplies & Cutting Diagram

- A Base (1) 1 x 4 1/2 - 8 1/2
- B Brackets (2) 3/4 x 3 3/8 - 6
- (4) 1/4" -20 T-Nuts
- (1) 1" Pipe Flange
- (4) #8 x 1 3/4" Fh Woodscrews
- (2) 1/4" -20 x 3 1/2" Carriage Bolts
- (2) 1/4" -20 Hex Nuts
- (2) 1/4" Washers
- (1) 10" Handscrew

1" x 5" - 24" Hard Maple (1.0 Bd. Ft.)



3/4" x 4" - 24" Hard Maple (.7 Bd. Ft.)



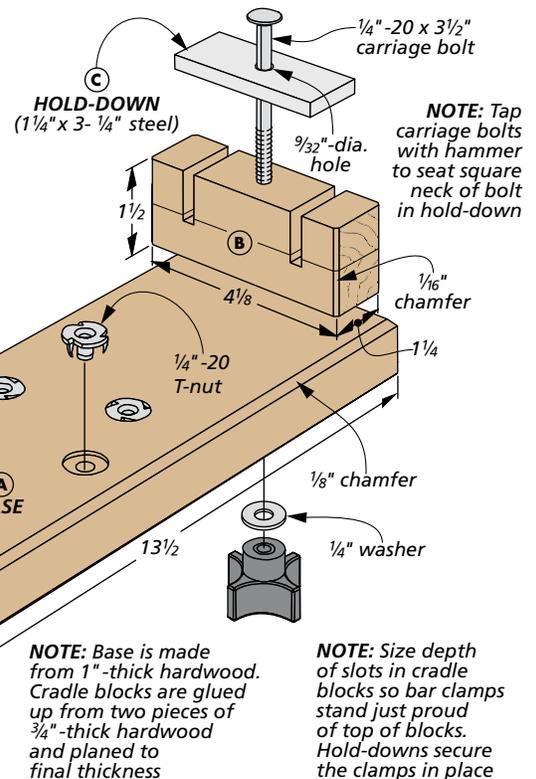
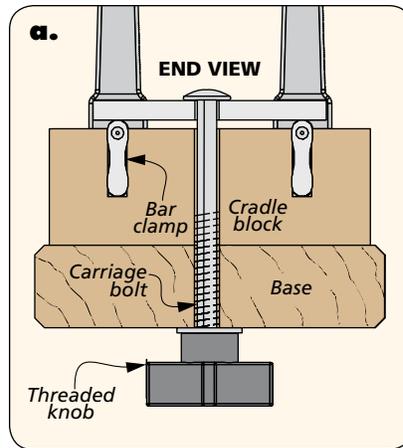
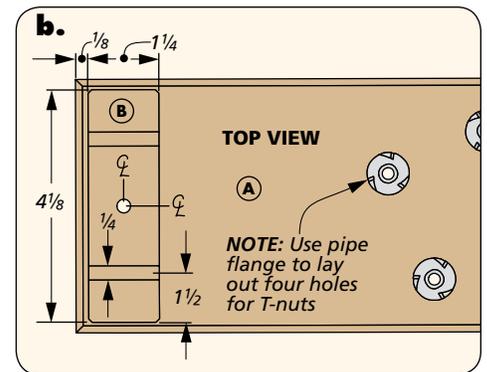
Bar Clamp Mount

Having built two mounts for my swivel vise (one for a machinist's vise and one for a handscrew), I still felt the need to add one more fixture. That third fixture is the bar clamp mount you see at right. This mount holds two bar clamps in a couple of cradles and adds even more functionality to my swivel vise.

FAMILIAR CONSTRUCTION. You'll notice right away that the base for the bar clamp mount is very similar to the base for the handscrew mount, just a little longer. This is a good place to start. Cut the base to size and chamfer the edges. You'll also lay out the holes to mount the pipe flange as before. Now, drill these through holes and the counterbores for the T-nuts (detail 'a'). Tap the T-nuts in place with a hammer.

CRADLE BLOCKS. The cradle blocks are next. They hold the bar clamps in an upright position. Glue up a couple of pieces of $\frac{3}{4}$ "-thick stock, plane them to final thickness, and then cut them to size. I used a dado blade in my table saw to cut the slots for the bar clamps. Most bar clamps have a similar design, but be sure to have the clamps that you'll be using on hand in order to size the slots. Now, chamfer the edges of the blocks (drawing at right and detail 'a') and attach them to the base with glue. The through hole in the center of the block and base are made at the drill press.

HOLD-DOWNS. All that's left is to fashion a couple hold-downs from a $\frac{1}{4}$ "-thick piece of steel. These pieces hold the bar clamps securely in place. Finish up by drilling a centered hole in each hold-down. Drop the bar clamps into the slots and lock them in place with the hold-downs, carriage bolts, and knobs. **W**



Materials, Supplies & Cutting Diagram

- | | |
|----------------------------|---|
| A Base (1) | $1 \times 4\frac{1}{2} - 13\frac{1}{2}$ |
| B Cradle Blocks (2) | $1\frac{1}{4} \times 1\frac{1}{2} - 4\frac{1}{8}$ |
| C Hold-Downs (2) | $1\frac{1}{4} \times 3 - \frac{1}{4}$ Steel |
- (4) $\frac{1}{4}$ "-20 T-nuts
 - (1) 1" Pipe Flange
 - (2) $\frac{1}{4}$ "-20 x $3\frac{1}{2}$ " Carriage Bolts
 - (2) $\frac{1}{4}$ " Washers
 - (1) $\frac{1}{4}$ " - $1\frac{1}{4}$ " x 12" Steel Bar
 - (2) $\frac{1}{4}$ "-20 Threaded Knobs
 - (2) 12" F-Style Bar Clamps

1" x 5" - 24" Hard Maple (1.0 Bd. Ft.)



$\frac{3}{4}$ " x 4" - 24" Hard Maple (.7 Bd. Ft.)

