

Hold-Down Clamp

This is a great little hold-down clamp that can be mounted to a workbench, a drill press table, or as part of a ripping jig for the table saw, see photos at right.

The clamp is designed with one side of the arm shorter than the other. It pivots on a cylindrical block to allow a range of options the thickness of stock you can clamp (up to 3"), refer to Fig. 2.

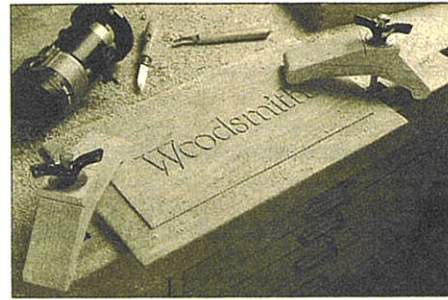
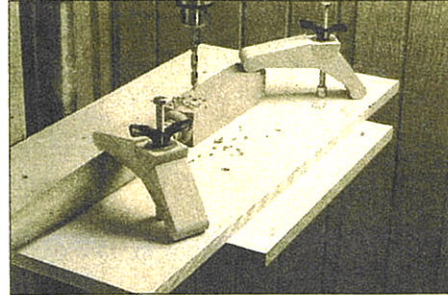
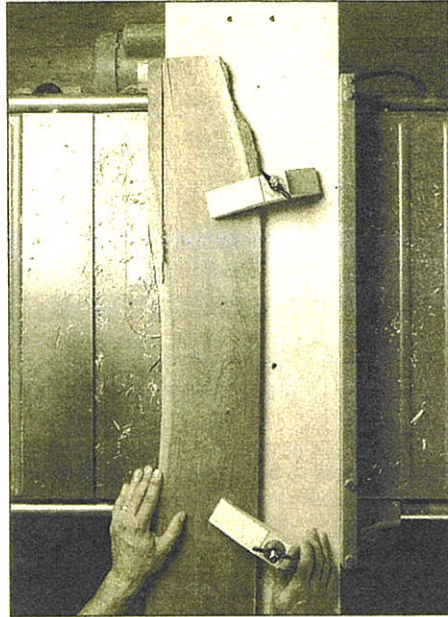
The clamp is held in place with a large wing nut that's screwed onto a 6"-long machine bolt, see Fig. 2. This machine bolt is screwed into a T-nut mounted in the top of the workbench or in a jig.

ARM. To make the arm, lay out the pattern in a 1½"-thick blank as shown in Fig. 1. Before cutting out the shape, bore a 7/16" hole through the top of the block for the machine bolt to pass through, see Fig. 3.

Next, cut out the half circle pivot block and save this piece, see Fig. 4.

To allow the arm to pivot around the machine bolt (as shown in Fig. 2), you need to bore out a clearance slot. Bore a series of holes through the bottom of the block all the way through to the pivot area, see Fig. 5.

Now you can cut the arm to shape on a hand saw. Then clean out the slot with a chisel and file. To assemble the parts, insert the machine bolt through the arm and screw into a T-nut mounted in a jig or bench, see Fig. 2. To keep the bolt from going too far, lock two hex nuts together to form a stop.



To tighten down the arm, you can make your own wing nut out of wood, see page 21. (Hardware for the clamp is available from *Woodsmith Project Supplies*, see page 31.)

When using this clamp, the idea is that the two sides of the arm are different lengths for various thicknesses of wood. This also allows you some flexibility in where the end of the arm is placed on the workpiece.

RIPPING JIG. I used these clamps to make a straight-line ripping jig, see photo. (For more on this jig, see page 29.)

BENCH HOLD-DOWNS. They also make great hold-downs on a workbench. Just drill ½" holes through the bench top and install T-nuts from below. Or, if your bench already has dog holes, slip a long bolt with a large washer up through a dog hole.

