

Table saw Jig for Turning Pins

The cradle in *Woodsmith* No. 244 swings on a pair of pins that match the material used to make the cradle — beech. These pieces are easily turned on a lathe. However, not every woodworker owns a lathe, myself included. That doesn't mean you're out of luck, though. One solution is to use the table saw and a jig to make the round parts.

The jig attaches to the miter gauge and positions an octagonal blank above the dado blade. As you rotate the blank, the dado blade cuts the blank into a round shape.

JIG BASICS. The main purposes of the jig are to support the workpiece parallel to the saw table and square to the blade. In the drawing below, you can see that the jig is not complicated. An L-shaped base and back

hold a set of three brackets. The brackets have a hole drilled to accept the pin blank (detail 'a'). Set up a fence and stop block on your drill press to ensure that the holes in the brackets are located consistently.

Two of the brackets are attached flush with the ends of the back and base. Take a look at detail 'b' to see the placement of the third bracket.

SIZING THE BLANK. In addition to the jig, sizing the blank is a critical component of creating the pins. Depending on the stock available, you may need to glue up the blank from thinner pieces. Then cut an extra-long piece to 1 1/4"-square. In order to fit into the holes, tilt the blade 45° and chamfer the corners, as shown in Figure 1. Take light cuts on each

corner (Figure 1a) to sneak up on a smooth-sliding fit into the holes in the jig.

TURNING PINS. Swap out the blade for a dado set to form the pins. Clamp the jig to an auxiliary fence on the miter gauge and slide the blank into the holes.

The first step is to turn each end of the blank round. Raise the dado blade just high enough to create a round shape as you rotate the blank within the jig. I used the rip fence as an end stop. Repeat this on the opposite end of the blank.

Raise the dado blade slightly and shape the smaller diameters, as illustrated in Figure 2. After shaping the other end, you can cut the pins to length and chamfer the ends. They're now ready to be installed.

