

best-built jigs & fixtures

table saw

# Dovetail Jig



■ Cutting through dovetails on the table saw might seem a little out of the ordinary. But with this jig, you can get perfect-fitting joints every time without a lot of effort. The article starting on page 40 walks you through the process.

**The Jig.** As you can see, the jig is made of  $\frac{3}{4}$ " plywood. Since you'll be cutting through the base of the

jig, a cross bar at the front helps keep it together and stable.

To cut both the tails and the angled pins of the dovetail joint, the fence can be indexed. It pivots at one end and locks in place at the other to set the proper angle. The face of the fence has a T-track

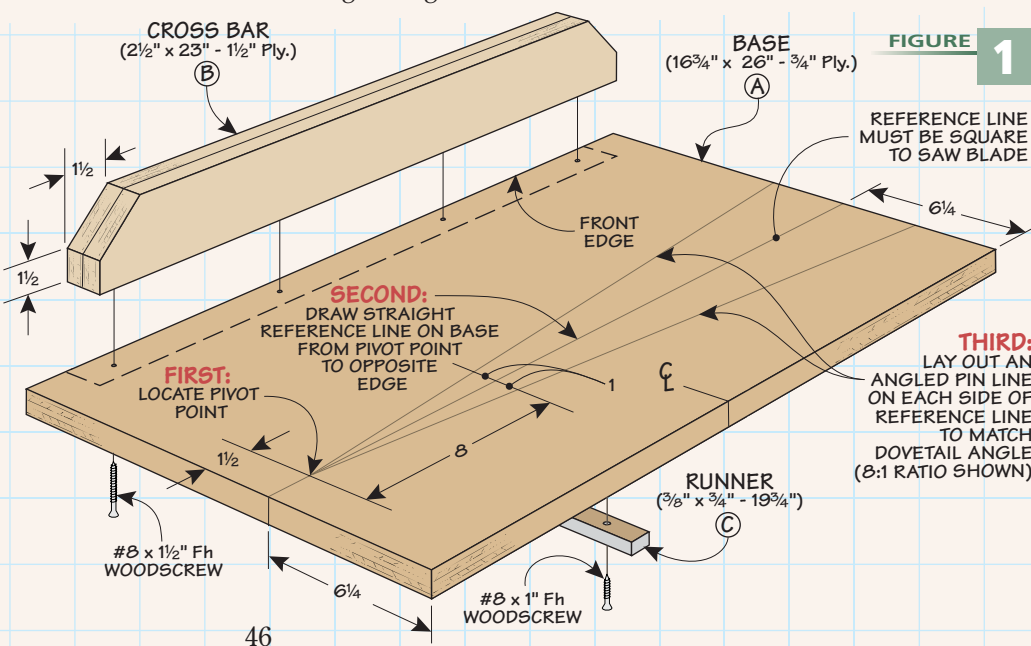
for holding a stop block and spacers for cutting the pins and tails.

**Start with the Base.** The jig isn't very complicated to build. It starts with a plywood base (Figure 1). After cutting it to size, I first marked out the centerline that will align with the blade.

The next thing to do is draw several lines you'll use later to install and locate the fence. Figure 1 shows you how to do this. Note: The lines shown are for cutting dovetails with an 8:1 ratio.

**Cross Bar & Runner.** Next, I added the cross bar at the front. And then to fit the jig to the saw, you can add the runner. I used a strip of phenolic I had lying around, but a hardwood strip or manufactured miter bar would work just as well.

To locate the runner, position the jig so the blade is aligned with the centerline of the base. Then mark the location of the miter slot to attach a runner. Be sure to keep the base square to the saw blade.



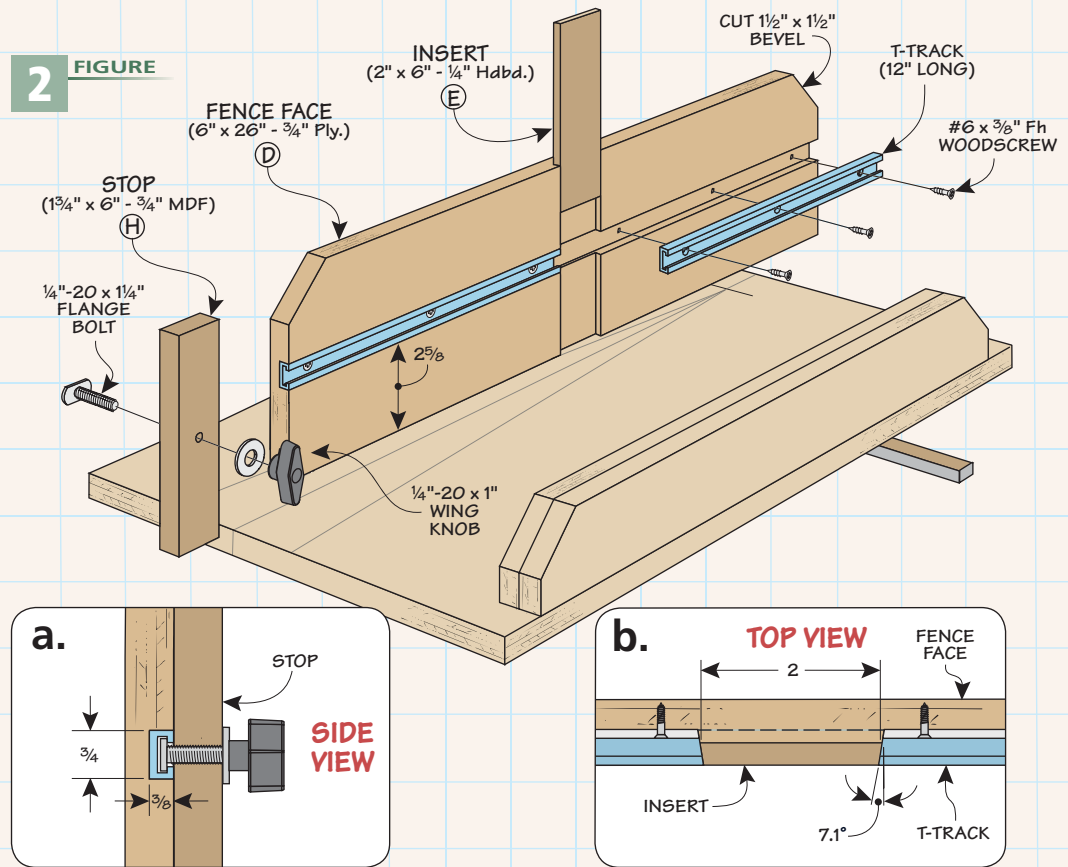
**Fence.** You can turn your attention to building the fence. The first thing you'll need to do is cut a wide but shallow, centered dado that holds a replaceable insert, as in Figures 2 and 2b. The insert backs up the cut to prevent chipout. I used my custom-ground dovetail blade to cut the beveled sides of the dado and remove the waste. Then, cut the  $\frac{3}{4}$ "-wide groove for the T-track and ease the top, outside corners of the fence face.

Once that's complete, you can make the fence base. To secure the fence to the jig, you'll need to drill a hole at each end (Figure 3). Go ahead and extend the centerline to the end of the base, as you can see in the lower right photo. This helps align the fence for drilling the indexing holes in the base.

To keep the fence face square to the fence base, I added a set of braces. After trimming them to size, cut dados in the two middle braces to hold a blade cover. Finally, screw the fence face, base, and braces together, and then slip the blade cover in place.

**Fence Installation.** To install the fence, drill a counterbored hole at the pivot point on the bottom,

**2** FIGURE

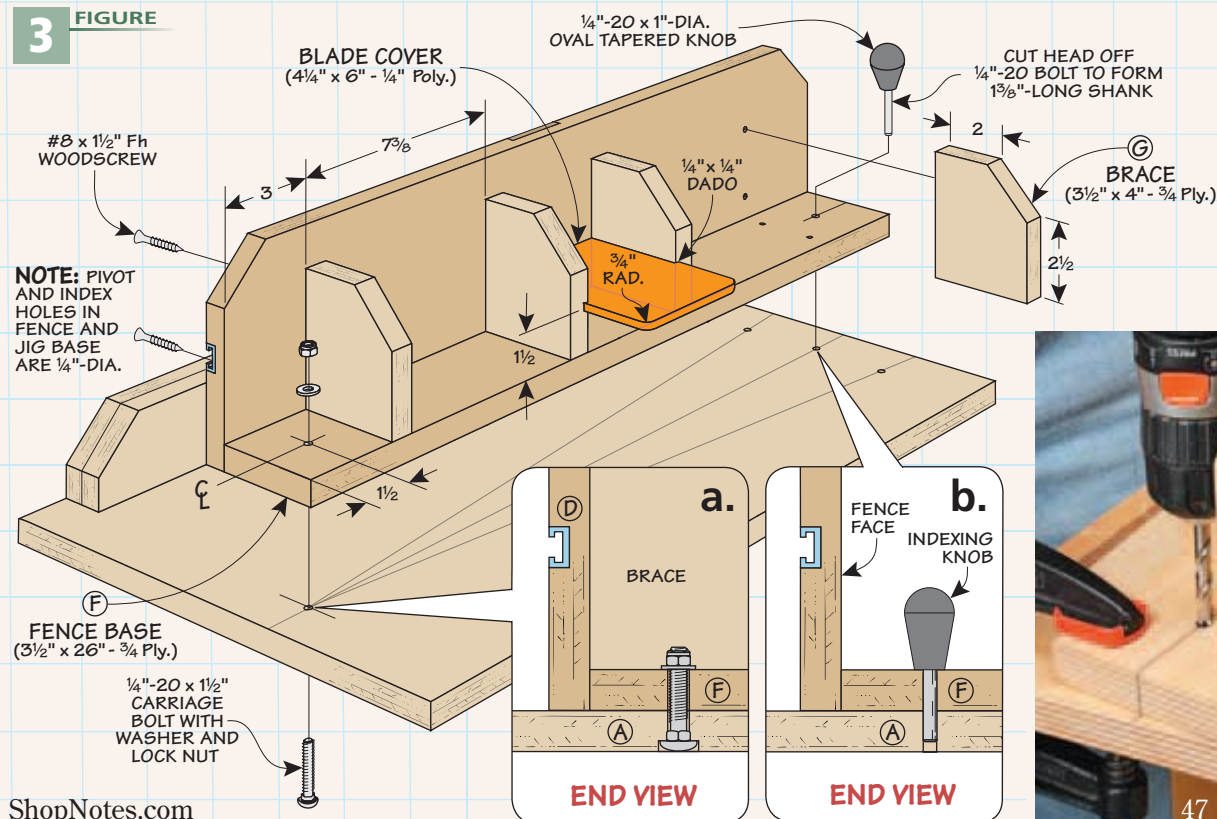


as in Figure 3a. Then, secure the fence in place with a carriage bolt, washer, and lock nut. At the opposite end, align the centerline on the base with one of the layout lines on the base of the jig. After clamping the fence to the jig, drill through

the base, using the hole in the fence as a guide. Simply repeat the process for the other two holes.

Finally, you can make the stop block and fence indexing knob (Figures 2 and 3). For more on using the jig, turn to page 40.

**3** FIGURE



**Index Holes.** Use the layout lines to position and drill the index holes in the base of the jig.

