

Jig for Threaded Inserts



▲ Threaded inserts (and machine screws) allow you to join two pieces so they can be disassembled easily later.

Most of the devices I've seen for installing threaded inserts use a nut and bolt to drive the insert into the workpiece. The real trick with this procedure is keeping the insert straight as you're screwing it into the wood — it's not nearly as easy as you might think. So when I need to install some

threaded inserts, I get out a shop-built, hand-held jig that I use with a ratchet, as in the photo below. This jig lets me drive the inserts in straight every time.

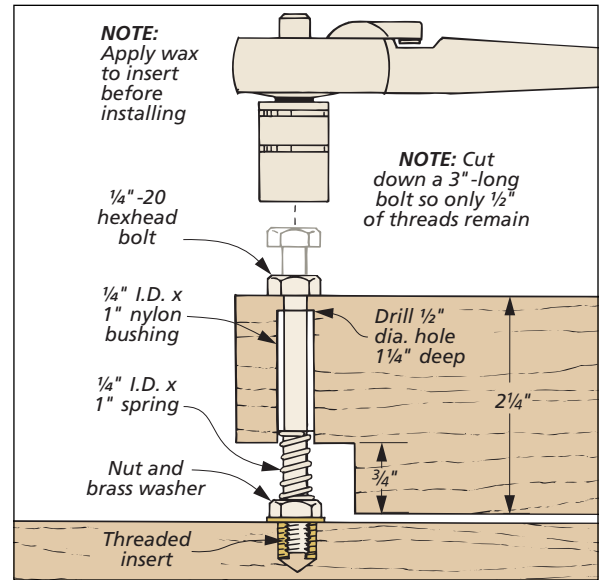
The tool is just a block of hardwood with a $\frac{3}{4}$ "-deep notch cut in one corner, see drawing. A counterbored hole is drilled through the



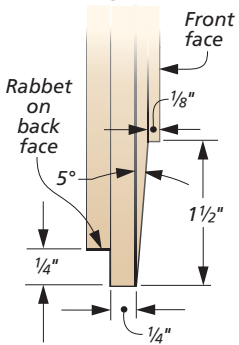
▲ This simple tool makes it easy to install a threaded insert straight. A nylon bushing and a spring help hold the threaded insert upright as it's driven into the workpiece.

notch to hold a $\frac{1}{4}$ "-20 hex-head bolt and a nylon bushing. The through hole is sized to hold the bolt, and the $\frac{1}{2}$ "-dia. counterbore is drilled $1\frac{1}{4}$ " deep to accept the $\frac{1}{4}$ " i.d. bushing that holds the bolt straight while you tighten it down.

Finally, I added a spring between the bushing and the nut and washer that are tightened against the insert. The spring provides just enough downward pressure to help the threads on the outside of the insert to cut into the wood. **W**



RAISED PANEL OPTION FOR FILE CABINET



Making Raised Panels

One of the drawer options for the file cabinets in Woodsmith No. 144 was to make the false fronts with raised panels instead of flat panels, as in photo at right.

I like to cut raised panels with the table saw, and there are a couple of things I do to end up with smooth, clean bevels and shoulders.

To set up the table saw, first tilt the blade *away* from the fence and raise the blade to the correct height, as in Fig. 1 and left margin.

Once the blade is adjusted, I make the cut in two passes. The first removes *most* of the waste. Then to clean up any burn or saw marks, I nudge the fence

and make a second "skim" cut. This also creates the $\frac{1}{8}$ "-wide shoulder of the profile. Note: Before moving the rip fence for the second pass, cut the bevels on *all* the edges of *all* the panels.

With the raised panels cut, the last step is to sand the bevels. But there's another area that needs

attention. Since the blade was tilted, the $\frac{1}{8}$ " shoulder will be undercut slightly. To square it up, I made a sanding block that has a bevel cut on one edge (Fig. 2).

For the file cabinets, you will also need to rabbet the panel's back face, as in the left margin. And when you assemble the frame around the panel, don't force the panel into the grooves. If the fit is too tight, just sand the bevels. **W**

