

This article originally appeared in an August Home Publishing magazine or special interest publication.

1850
ARCHIVE PLANS
MFG#

0 00185 01800 5

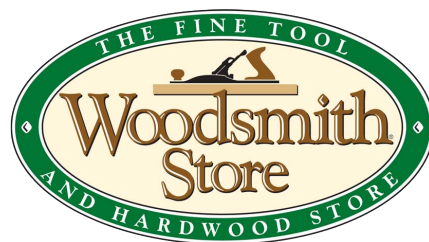
Woodsmith®

ShopNotes®

workbench®

Cuisine®
at home

Garden Gate®



Shelf Pin Drilling Jigs



Accurate shelf pin holes are no problem with a jig and a self-centering drill bit.

I like to use adjustable shelves in cabinets because of their flexibility in layout. But it's all too easy to drill the shelf pin holes a little off and end up with crooked shelves. The way I prevent this is to make a drilling jig from pegboard. A fence attached to the jig registers it on the workpiece and allows me to drill the shelf pin holes pretty accurately.

The downside with a shop-built jig like this is that it usually only works a few times. After that, the bit enlarges the holes in the pegboard, throwing off the accuracy. Another drawback is that the jig has to be designed to be used *either* before or after assembly.

The solution to these problems can be found in

using a commercial drilling jig. These jigs cost about \$25 to \$50. And after taking a look at the drilling jigs shown here, I may just put my pegboard out to pasture for good. For sources, turn to page 51.

A quick look at the photos on this page shows two examples by Rockler and Woodhaven. Both jigs look similar, and you'll end up with the same results, but they go about it a little differently. Each jig consists of two components — a drilling template and a special drill bit.

I'll talk more about the template later. For now, let's take a look at the self-centering drill bit.

SELF-CENTERING BIT

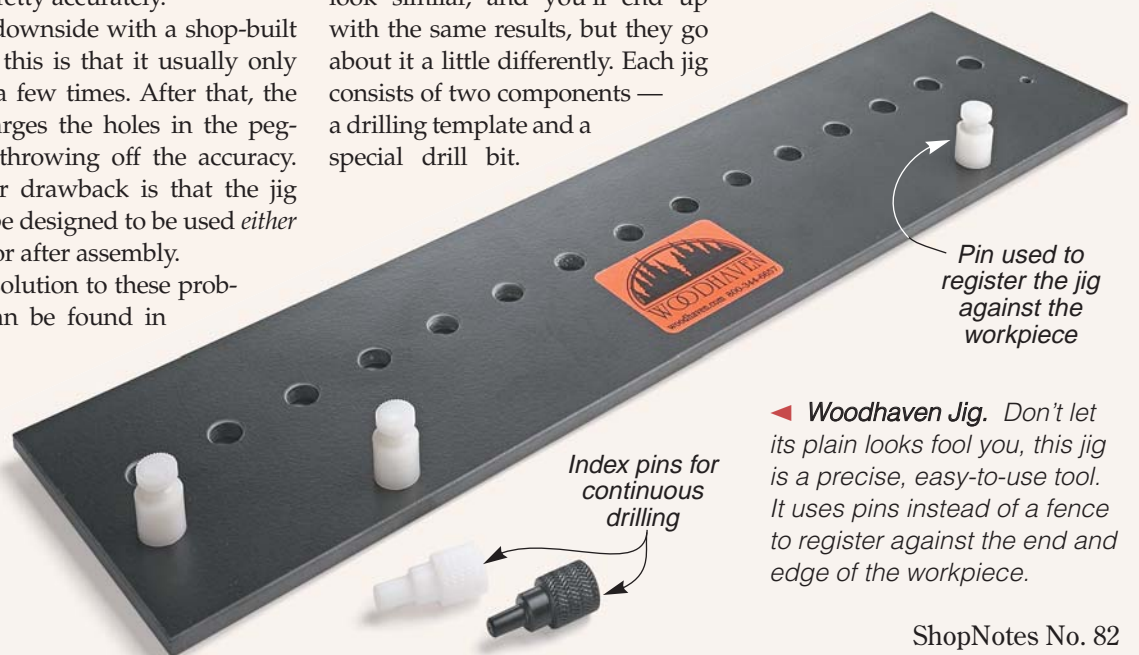
Like I mentioned earlier, one of the problems with shop-made drilling jigs is that they wear out after a few uses. And at first glance, the jigs shown here don't look that much different from pegboard jigs.

But one big difference is in how the bit works, as in the upper right photo on the next page. It never comes in contact with the template. Instead, the holes are sized to accommodate a bushing on the nose of the bits. What this means is that the holes in the jig won't wear out after repeated use.

The actual bit is housed in a spring-loaded sleeve. This sleeve centers the bit in the template. The sleeve also automatically controls the depth of the hole.

The business end of the bit is a replaceable brad point bit. And when you put all these parts together, the results are perfectly spaced holes that are clean and square time after time.

Besides durability, there's another benefit to this design. You can use different size bits with the same jig and maintain the same spacing. You can get bits for both 1/4" and 5mm shelf pins as well as the slightly larger bits necessary for



◀ **Woodhaven Jig.** Don't let its plain looks fool you, this jig is a precise, easy-to-use tool. It uses pins instead of a fence to register against the end and edge of the workpiece.

drilling the holes for insert sleeves. These sleeves give a row of holes a more finished look. (For more on shelf pins, turn to page 10.)

TEMPLATE

The bits aren't the only reason why these jigs are so useful. You'll find the templates have a few handy features built in as well. In the photo at the top of the opposite page, you'll notice *Rockler's "Jig-It"* has two rows of holes in the clear template.

The two rows give you a choice of setbacks, either 2½" or 1⅞". (The holes are 32mm on center.) Used along with a removeable fence, the double row of holes will give you a consistent setback on cabinets with a face frame or without a face frame.

This jig can also be used to install European-style hinges with the 1⅞" setback and a 5mm bit. The hinges are designed to be mounted into the shelf pin holes.

English and Metric Versions. The *Woodhaven* template is a little different. It's made from ¼"-thick phenolic and has only one set of holes. You can get an English version where the holes are 1" on center and set 1½" back from the edge. A metric version is also avail-


able with a 32mm hole spacing and a 37mm setback.

The *Woodhaven* jig has another great feature. You can use a plunge router with a ⅜" O.D. guide bushing and straight bit to create the holes a lot faster than you can with a hand drill.

Adjustable Fence. One of the reasons I like these jigs is that they can be used either before or after assembly (box below). To do this, each jig can be registered off the edge of the workpiece.

On the *Woodhaven* jig, this is done with a set of pins that screw into the template. Two pins are used to set the jig against the edge of an unassembled piece. A third pin allows you to hook the jig over an end of the workpiece.

The *Rockler* jig uses a removeable fence. The fence can be bolted to either edge of the jig to make use of both sets of holes. As a bonus feature, the fence also has a pair of storage bins to hold extra bits and adjusting wrenches.

Continuous Drilling. There's one final detail of each jig that I want to point out. At each end of the *Rockler* template are a pair of indexing holes. The holes allow you slip a shelf pin through the jig and into the workpiece to continue drilling down the sides. (The *Woodhaven* jig comes with a pair of nylon indexing pins for both ¼" and 5mm holes.) This makes it easy to keep consistent spacing on larger projects like a tall bookcase (right photo below). 



Spring-loaded sleeve keeps bit from ruining the template

Allen wrench used to adjust bit depth or replace it when dull

Bushing on nose matches holes in template

Drilling Technique: Using the Jig



▲ **Before Assembly.** Use the fence to register the jig along the edge and then drill the holes with the outside row.



▲ **After Assembly.** The edge of the jig butts against the case back and top for drilling inside an assembled case.



▲ **Continuous Drilling.** Slip a shelf pin in the indexing hole to keep drilling down the workpiece.