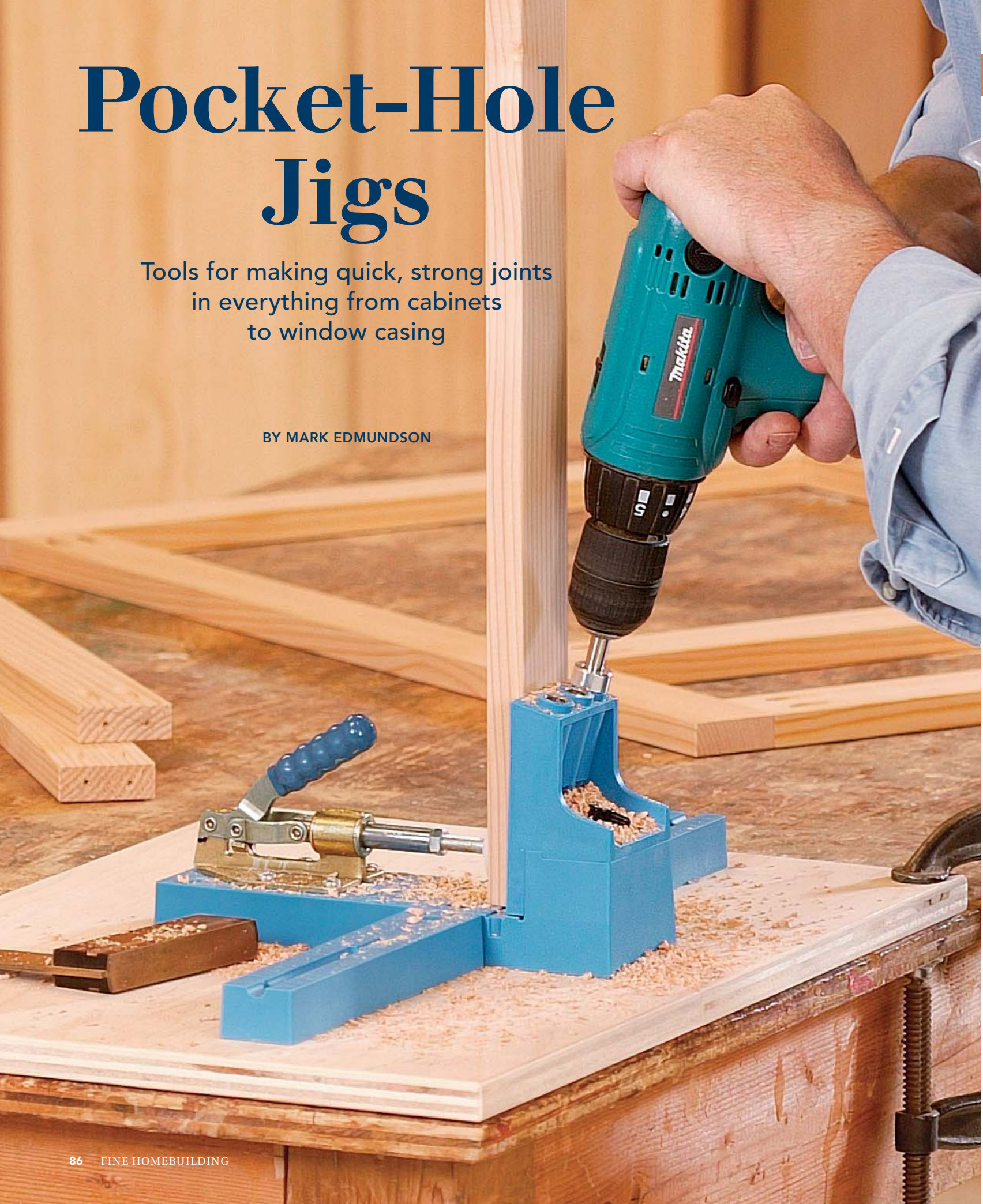


Pocket-Hole Jigs

Tools for making quick, strong joints
in everything from cabinets
to window casing

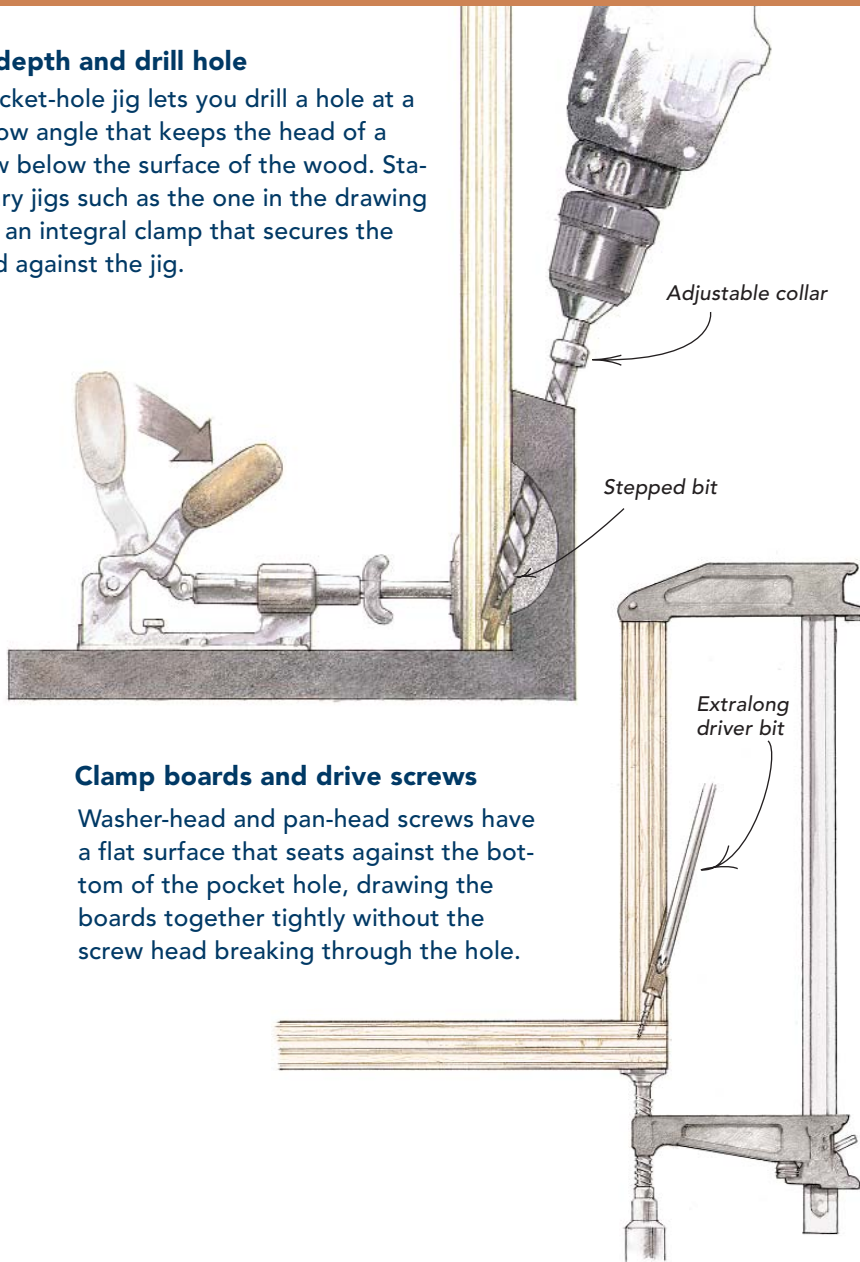
BY MARK EDMUNDSON



POCKET-HOLE JIGS ARE JUST FANCY DRILL-BIT GUIDES

Set depth and drill hole

A pocket-hole jig lets you drill a hole at a shallow angle that keeps the head of a screw below the surface of the wood. Stationary jigs such as the one in the drawing have an integral clamp that secures the wood against the jig.



Clamp boards and drive screws

Washer-head and pan-head screws have a flat surface that seats against the bottom of the pocket hole, drawing the boards together tightly without the screw head breaking through the hole.

Like a lot of professional woodworkers, I scoffed at the idea of pocket-hole jigs when they first came out. Having made dovetails, dowels, and mortise-and-tenon joints my stock in trade, I figured that anything made with pocket screws had to be shady and shoddy. But then I tried one, and I've never looked back.

What is a pocket-hole jig?

A pocket-hole jig is basically a fancy guide for a drill bit (drawings above). It allows you to drill a hole, or pocket, at a very shallow angle into a piece of wood. A screw driven through that hole and into an adjoining piece of wood creates a simple, fast, accurate, and strong system for

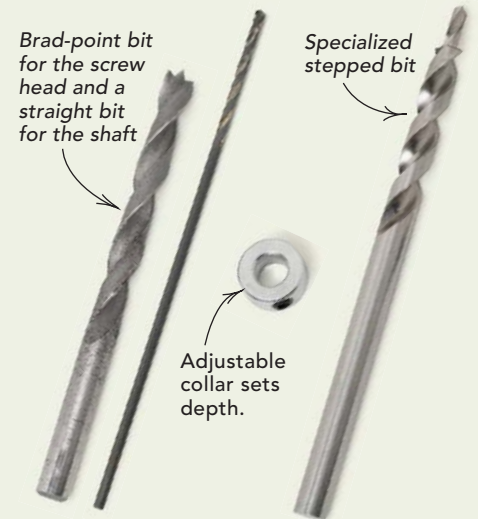
holding the pieces together. The shallow angle of the hole (15° for this system) means you can join two boards on the same plane without the screw head or tip protruding from the work. I also use my pocket-hole jig for joining pieces on perpendicular planes, such as the plywood panels of the top, bottom, and sides of kitchen cabinets (sidebar p. 88).

Pocket-hole jigs cost anywhere from about \$6 for the most basic model to \$800 for a production-shop model. The Kreg K-2 model that I use cost about \$100 (sidebar p. 89).

On occasion, I combine pocket screws with wooden biscuits for added strength and alignment while the screws are driven. Glue can be added insurance for the joint but isn't re-

Two drilling options

To make one-size hole for the screw head and another for the shaft, use either two different bits or a special stepped bit.



The right screws fit the pocket

Pan-head screws

The flat shape of the head makes it ideal for pocket-hole joinery.



Washer-head screws

Designed specifically for pocket holes, these screws come in different lengths and different threads.



Dealing with different stock thicknesses

Pocket screws can join different thicknesses of stock. To make the screw exit close to the center of the stock, the depth of the pocket, the distance to the end of the board, and the length of the screw increase with the stock size.

1-in. screw for ½-in. stock



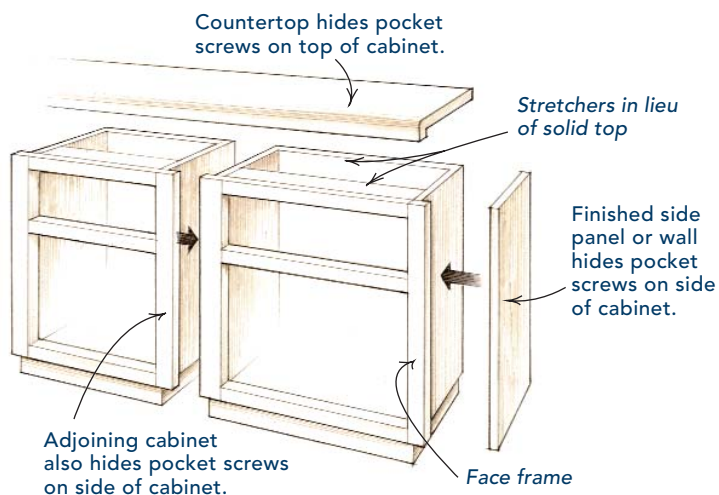
1½-in. screw for ¾-in. stock



2½-in. screw for 1½-in. stock



LIGHTNING-QUICK CABINETMAKING



Use pocket-hole joinery for all phases of cabinet construction, but it is especially useful where finished sides or adjoining cabinets can hide the fasteners. After gathering my precut parts, I lay out and drill pocket holes where they're least noticeable (1). Then I clamp the carcase together and drive screws into the pockets.

Pocket holes are perfect for assembling face frames. Again, I precut the pieces and drill pocket holes wherever needed. Because face-frame pieces are usually narrow, I align the edges of each piece with an embossed mark on the jig to make sure the hole is far enough away from the edge to avoid splitting. I place the pieces face down on a clean, flat worksurface, and clamp them at each joint to the worksurface before driving the screws to keep them from shifting out of alignment (2).

When I'm ready to attach the face frame, I index it to the case with a biscuit joiner and dry biscuits. The biscuits make it easy to position the frame in exactly the same place if I remove it for finishing or scribing. I then clamp and screw the frames in place (3). Attachment holes on the outside of the case are hidden in the final installation. —M. E.

ally necessary; also, without glue, I can take the pieces apart more easily for finishing.

The biggest drawback to the pocket-hole system is the large oval holes that the screws are driven into. Although wooden plugs are available to fill the holes, it's important to plan carefully and to use pocket screws only where they will be hidden. For example, I make cabinet face frames with pocket-hole joinery because the back sides of the frames are hidden. But I rarely build cabinet doors with pocket screws because both sides of the door (and likewise the pocket holes) will be visible.

Set depth, drill, clamp, and screw

The beauty of a pocket-hole jig is how simple it is to use. The jigs are either stationary

with integral clamps that hold the work, or portable and have to be clamped to the piece of wood before the hole is drilled.

The depth of the pocket hole and the length of the screw change depending on the size of the stock (drawings bottom right, p. 87). Most jig companies provide specific instructions for setting the depth. An adjustable collar that slips over the shaft of the drill bit controls the depth of the hole. A second, smaller-diameter hole provides clearance for the shaft of the screw.



1. Drilling the cabinet parts



2. Assembling the face frame

The most obvious way to drill these two different-size holes is with two different bits (photos top right, p. 87). The larger hole ($\frac{1}{8}$ in.) should be made first with a brad-point bit to create a flat hole bottom for the screw head. Then a smaller-diameter bit ($\frac{1}{16}$ in.) drills the clearance hole for the screw. Both of these bits have to be longer than the standard length. This method requires a lot of bit changing, so manufacturers have come up with a stepped-diameter



Face frame becomes window trim. Built in a similar fashion to a cabinet face frame, window and door trim can be assembled and installed in one piece without visible fasteners.



3. Attaching the face frame

bit (for around \$15) that drills both of the holes at once.

Don't use drywall screws

A key to successful pocket-hole joinery is using the proper screw. Both pan-head screws and washer-head screws have a flat surface on the bottom side of the head that seats evenly against the bottom of the pocket without splitting the wood (center photos, p. 87).

Screws sold specifically for pocket-screw joinery are available, but commonly available self-tapping pan-head screws work fine as long as you use the proper gauge and length for the size of the boards you're joining. The recommended screw gauge (or thickness of the screw's shaft) is #7, and the

recommended screw lengths are 1 in. for ½-in. stock, 1½ in. for ¾-in. stock, and 2½ in. for 1½-in. stock.

Fine-thread screws are suggested for fastening hardwood, and coarse-thread screws are best for fastening softwood and composites. Most of the screws designed specifically for pocket-hole joinery are square drive, and driving these screws requires extralong bits, which are also available from most pocket-hole jig manufacturers for about \$2. Or simply use a regular-length driver bit with a bit extender. □

Mark Edmundson is a carpenter and woodworker in Sandpoint, Idaho. Photos by Roe A. Osborn.

Different jigs for different gigs

Pocket-hole jigs and systems come in many shapes, sizes, and prices. A large selection of jigs and accessories is available at www.pocketholejigs.com (866-237-3281), or at tool stores and home centers. Here is a sample variety:

TWC SINGLE JIG

\$5.95 without stepped bit or driver; 800-892-4866; www.thewoodworkerschoice.com
Available as a double jig.



STEELEX DOUBLE JIG

\$9.99 without stepped bit or driver; 888-512-9069; www.ptreeusa.com
Adjustable spacing between guides.



CRAFTSMAN JIG

\$39.99 with stepped bit, driver, and screws; 800-377-7414; www.craftsman.com
Screw clamp holds work; can be portable or mounted on benchtop.



KREG PROPACK SYSTEM

\$139.99; 800-447-8638; www.kregtool.com
Just one of Kreg's many jig offerings, this kit includes Kreg's stationary guide, single and double portable guides, two stepped bits, two drivers, clamping pliers, and screws in a carrying case—a real pocket-hole bargain.

