

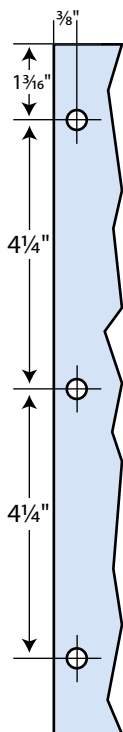


Drilling Clean Holes

Easily store back issues in a three-ring binder with the aid of this simple jig

By Bob Duncan

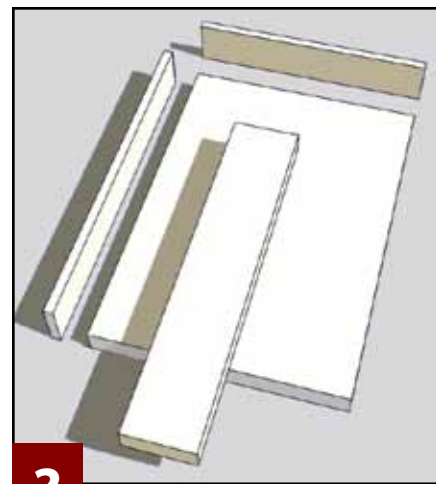
Readers who prefer to store back issues in a three-ring binder may continue to do so by drilling their own holes. You can clamp the magazine tightly between two pieces of wood and drill the holes with a $\frac{1}{4}$ "- to $\frac{5}{16}$ "-diameter drill bit, but this method leaves a fuzzy hole. The following shop-tested method requires only a small investment in time and materials and is a sure-fire way to drill clean holes.



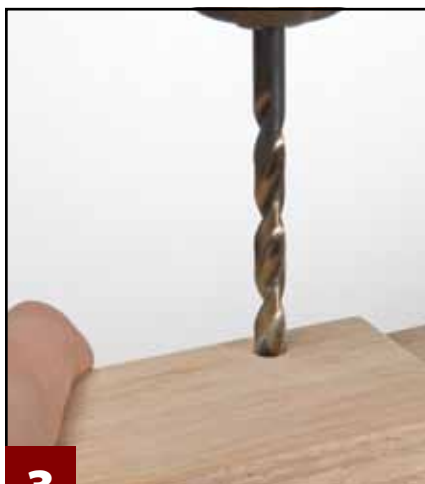
Hole Placement for Drill Guide



1 Create the cutting device. Start with a piece of $\frac{1}{4}$ "- to $\frac{5}{16}$ "-diameter steel pipe, such as brake line. Brake lines are available in short sections at most auto part stores. Sharpen the inside of the pipe with a cone-shaped stone or diamond bit. Grind away any burrs on the outside of the pipe.



2 Prepare the stock for the jig. Use $\frac{3}{4}$ "-thick oak or a similar hard wood for the base. Softer woods give a bit when you drill out the back side of the magazine and can create a slight ridge. Use $\frac{1}{4}$ "-thick stock for the side rails and $\frac{3}{4}$ "-thick stock for the drill guide. See the Materials & Tools listing for suggested dimensions.



3 Assemble the jig. Glue and nail the side and top rails to the base. Use a drill press to drill the guide holes through the $\frac{3}{4}$ "-thick by $2\frac{1}{2}$ "-wide stock. The guide holes are slightly larger than the diameter of the steel pipe. Use the guidelines provided at left or space the holes to fit the binder you will use to hold your magazines.



4 Drill the magazine. Chuck the sharpened steel pipe in a drill press. Position the magazine on the base and tightly clamp the drill guide on top of the magazine. The tighter the clamps, the cleaner the holes. Set the drill press to a relatively fast speed and feed the steel pipe through the guide holes and the magazine.

MATERIALS:

- $\frac{3}{4}$ " x $8\frac{1}{2}$ " x 11" oak or hardwood of choice (backing board)
- $\frac{1}{4}$ " x $1\frac{1}{2}$ " x $8\frac{3}{4}$ " oak or hardwood of choice (top rail)
- $\frac{1}{4}$ " x $1\frac{1}{2}$ " x 11" oak or hardwood of choice (side rail)
- $\frac{3}{4}$ " x $2\frac{1}{2}$ " x 11" oak or hardwood of choice (drill guide)
- $\frac{1}{4}$ "- to $\frac{5}{16}$ "- diameter by 4"-long steel tubing, such as brake line
- Wood glue
- Nails or screws

TOOLS: *materials & tools*

- Drill press with drill bit slightly larger than steel tubing
- Hammer
- C clamps
- Cone-shaped stone or diamond bit