

drilling accurate DOG HOLES

Making a top glued up from MDF and hardboard for the traditional workbench in Woodsmith No. 173 is a good way to save some time and material cost. The minor drawback is that you won't be able to drill the dog holes in this section of the top at the drill press. But there is a way to get "drill press accuracy" from your hand drill.

GOALS. You have two goals when drilling the dog holes. First, you want them to be located properly on the top. This is simply a matter of laying out the holes carefully, as shown below and in the article. Second, the dog holes should be clean, accurately sized, and as close to perpendicular as possible.

This is pretty easy to do on the drill press — a much bigger challenge using a hand drill.

GUIDE BLOCK. The solution to this problem is to use a sharp spade bit along with a pre-drilled, hardwood guide block to drill the holes. The $\frac{3}{4}$ "-dia. hole in the guide block can be drilled at the drill press. This way, you know it's square to the surface. Then, when the spade bit is inserted into the hole in the block, the long edges bear against the sides of the hole to keep it perpendicular (detail 'a').

THE HOLES. The process used to drill the holes is pretty straightforward. First, to help locate the point of the bit on my layout marks,

I use an awl to make a dimple. Then I place the guide block over the mark and inserted the drill bit, making sure the point is centered in the dimple.

The guide block will help you get the hole started straight into the top. Just hold it down firmly. Once the edges of the bit are through the hole and completely into the top, you'll want to concentrate on keeping the shank of the bit centered in the guide hole.

The spade bit will cut through the hardboard and MDF cleanly and easily. But to limit chipping as the bit exits through the bottom, it's a good idea to back up the hole with a piece of scrap. **W**

