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FOOTSTOOL

Cherry, Walnut, Oak



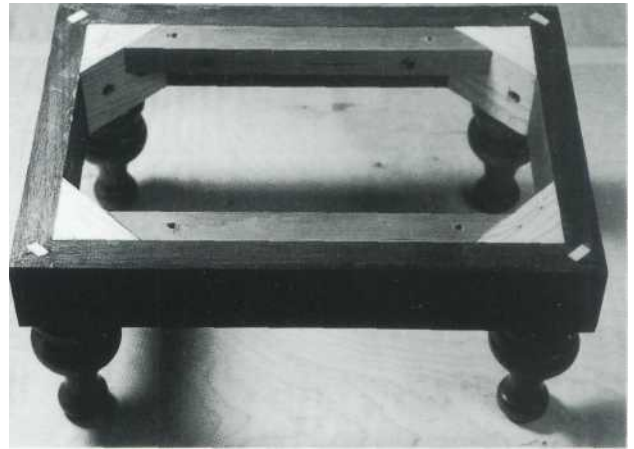
MAKING THE FOOTSTOOL

Construction begins with the legs since they are the most time-consuming components. Rip out 2X2 stock, cut to length, and center on the lathe. First, turn the 1/2 X 7/8" tenon on the top of the leg. Care must be taken in sizing the tenon so that a tight fit can be achieved. In my shop, I begin tenon sizing with a gouge, reducing the stock to 1/16" over its finished diameter. Then, with a flat (paring) chisel laid bevel side down on the tool rest, I bring the tenon to its final size, checking frequently with calipers. (Charles Harvey, a chairmaker in Berea, Kentucky, uses an open-end wrench to check tenon diameter.)

After sizing the tenon, give the leg its rough shape. Then form the coves and beads.

The frame is next. After dimensioning the stock, cut miters on each end of the frame components. Then, on a table saw fit with a stack of dado cutters tilted to a 45° angle, cut the dado for the spline on each end of every mitered piece.

Then rip out spline stock to a width of 2 1/16". Thickness to 1/4". When you have achieved a tight fit in the dados, crosscut the individual splines from the length of spline stock. Remember that the grain of the finished spline must run perpendicular to the mitered faces of the pieces being joined.



This photo shows the structural parts of the stool.

Assemble the splined and mitered frame. When the glue has dried, glue the triangular glue blocks in each corner and screw them into place. Take exact measurements for the screw strips and cut and install the strips.

The top of the footstool is a piece of 5/8" wood stock on which a piece of 1/2" foam padding has been placed. This is held in place by upholstery cloth wrapped around the top and stapled underneath.

Turn four screws up through the screw strips into the bottom side of the top to hold it in place.

AIR-DRYING LUMBER

Lumber is expensive.

Beautiful lumber is very expensive.

One way to avoid these high prices is to switch from the expensive kiln-dried lumber available at retail outlets to the much less expensive green lumber available at sawmills. Preparing green lumber for use does require labor and time, but the cash savings can be enormous.

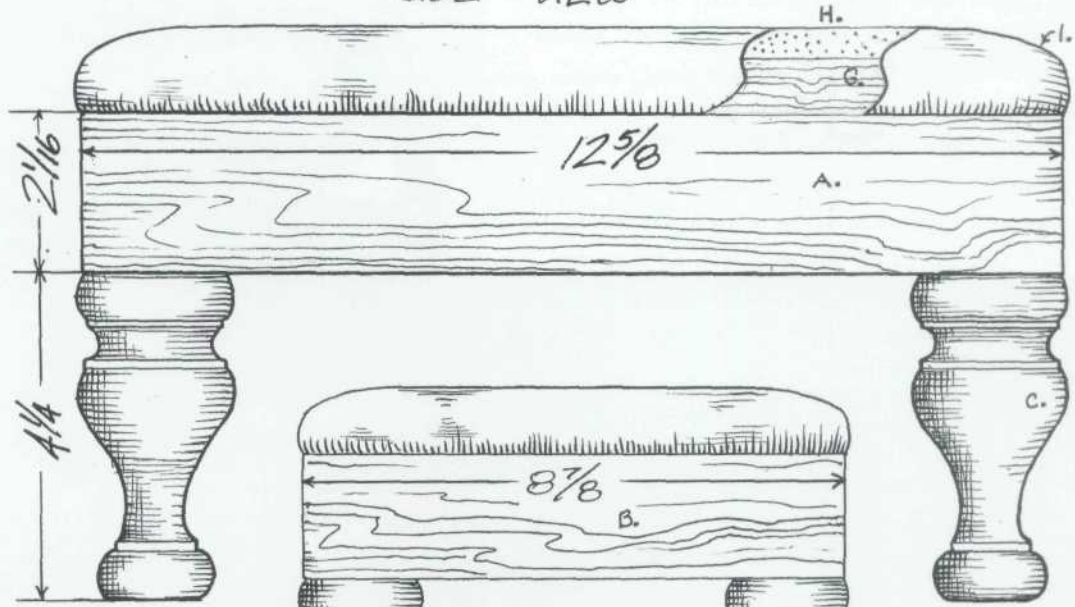
Before the green lumber can be air-dried, a solid foundation for the drying pile must be built.

First, you must choose an acceptable location. Drying piles are not beautiful things. For that reason a backyard

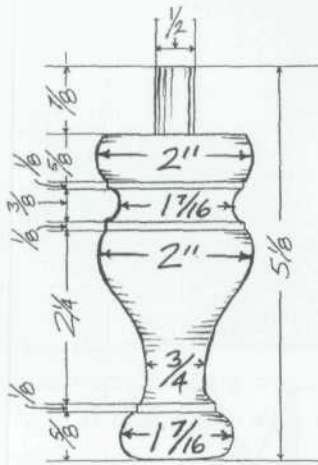
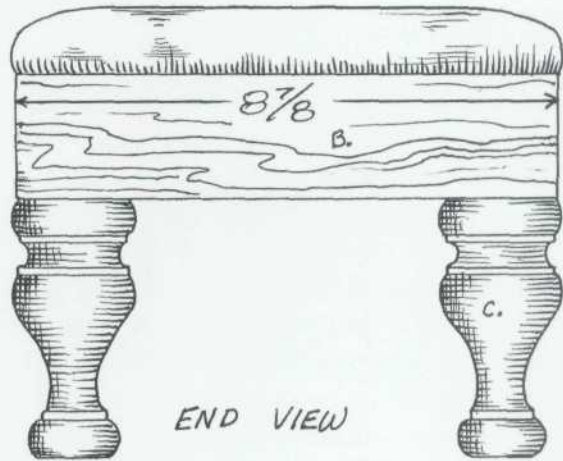
might be a better choice than a front yard. Air movement is also important. The site should also be open enough so that wind can blow through the pile to aid in reducing the moisture content. Finally, it should be situated on a slight grade so that water can run off whatever roofing material is placed atop the pile.

Begin the foundation with six concrete blocks set in two parallel rows of three. Set these so that the length of each row (measured from outside to outside of the end blocks) is about 8'. Again, measured from outside to outside, place the rows about 4' apart. Make some

SIDE VIEW

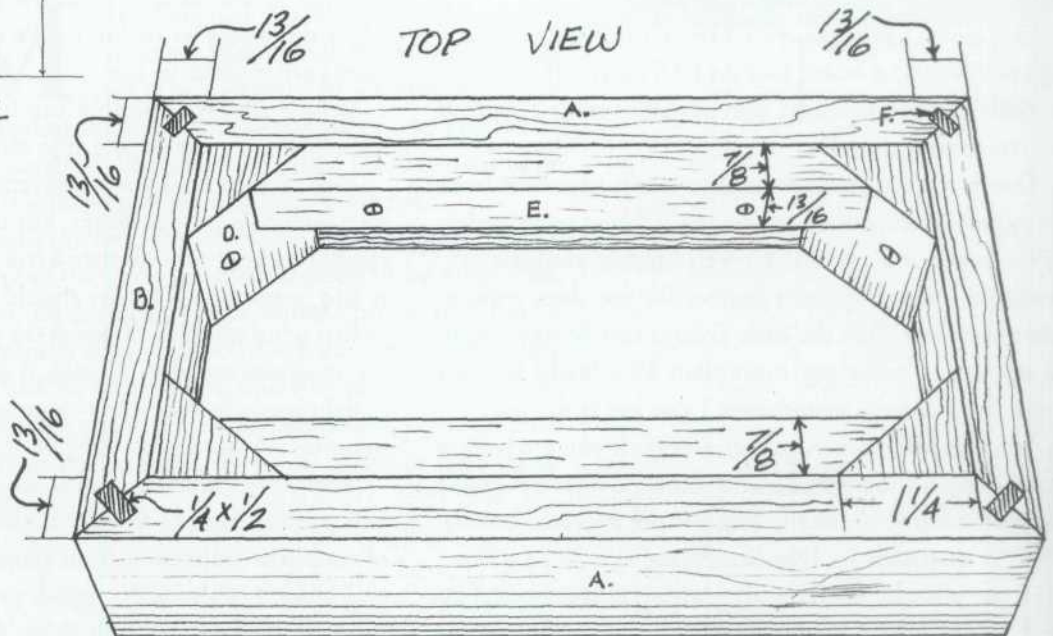


END VIEW



LEG DETAIL

TOP VIEW



effort to get the tops of these blocks into the same plane. Later, you can use shimming to correct minor inaccuracies.

Next, lay a row of railroad ties along each row of three blocks. Set these so that their top surfaces are in the same plane. You can check this by sighting across the ties from the side, shimming where necessary.

Then, set five 4' lengths of 4X4 across the ties at 20"-24" intervals. Again, these must be in the same plane because any twist in the foundation will be transferred to the drying lumber, in some cases making it unusable. Sight along the length of the pile from either end to reveal any twist in the alignment of the top surfaces of the 4 X 4s.

Air-drying lumber requires a large quantity of stickers, sometimes called sticks. These are nothing more than 1" X 1" X 48" dry hardwood ribs which separate the layers of drying lumber so that air can pass freely through the pile.

Once you have ripped out the stickers, the actual lumber pile can be constructed. First, place a single 1" X 1" X 48" sticker along the center line of each 4x4 support. Then, place a layer of green lumber perpendicular to and atop that first layer of stickers. As you are laying out these boards, take care so that an air space (approximately 1") is left between the edges of the boards.

MATERIALS LIST

A Side	2 pcs.	$1\frac{3}{16} \times 2\frac{1}{16} \times 12\frac{5}{8}$
B End	2 pcs.	$1\frac{3}{16} \times 2\frac{1}{16} \times 8\frac{7}{8}$
C Leg	4 pcs.	$2 \times 2 \times 5\frac{1}{8}$
D Glue block	4 pcs.	$1\frac{1}{4} \times 2\frac{1}{16} \times 2\frac{5}{8}$
E Screw strip	2 pcs.	$1\frac{3}{16} \times \frac{7}{8} \times 8\frac{7}{8}$, length to fit
F Spline	4 pcs.	$\frac{1}{4} \times 2\frac{1}{16} \times \frac{1}{2}$
G Top	1 pc.	$\frac{5}{8} \times 8\frac{7}{8} \times 12\frac{5}{8}$
H Foam	1 pc.	$\frac{1}{2} \times 8\frac{7}{8} \times 12\frac{5}{8}$
I Fabric	1 pc.	14 X 18
J Screws	various	

When that first layer of lumber has been positioned, place a second set of stickers across that layer directly above the first row of stickers. Then add a second layer of lumber, followed by another set of stickers and another layer of boards and so on until you have stickered all the green lumber.

Professional driers often build these piles to a height of 12'-14', but I find that if the top of the pile is more than five or six feet above the ground, it becomes too difficult to get the lumber up and down.

Complete the pile with a water-shedding top. It

doesn't need to be fancy. A couple of sheets of roofing metal will do, as will a tarp, or even a layer of knotted and checked lumber—anything that will keep water from percolating down through the pile.

Now, wait. The traditional rule-of-thumb states that material should air-dry outdoors one year for each inch of its thickness. I usually exceed that time allotment, although on a couple of occasions, in a pinch, I brought lumber inside after only six months. However, those six-months did include the prime drying seasons of summer and fall.

After air-drying outdoors, you can take the lumber to a commercial kiln for finish drying or bring it inside and sticker it again in a warm, dry room for a few additional months

It's then ready to use.

Much has been written about the importance of using

kiln-dried material, and retail outlets often brag about the fact that the moisture content of their stock has been reduced to 7 percent.

I think this is misleading. Yes, the lumber might have had a moisture content of 7 percent on the day it was taken from the kiln. But wood is not an inert medium. After leaving the kiln, its moisture content immediately begins the process of moving toward a point of equilibrium with the relative humidity of the surrounding air.

That means that if a craftsman took that 7 percent board to his shop in Death Valley, California, that 7 percent would soon become 4 percent or 3 percent. And if I took that same 7 percent board to my shop in central Ohio during the steamy month of July, that 7 percent moisture content would quickly become 11 percent or 12 percent, which is the same as the moisture content of the material I've prepared for use by air-drying.

The 1" X 1" stickers are arranged perpendicular to the layers of drying boards. These stickers provide a space through which air can move to hasten the drying process.

