



Shaker Side Table

Build a delicate version of this iconic round stand

BY CHRISTIAN BECKSVOORT

The first time I saw a photo of this small table, I was thrilled, but also taken aback. It looked to me like something designed in Denmark in 1960, not in a Shaker village in the early 1800s. The Shakers designed a variety of beautiful round stands, and I've written about other versions—and built more than 100 of them—but this one in my opinion is the ultimate. With its slightly concave tapering post, thin top, and light, half-crescent legs, the piece sums up the power and simplicity of Shaker design.

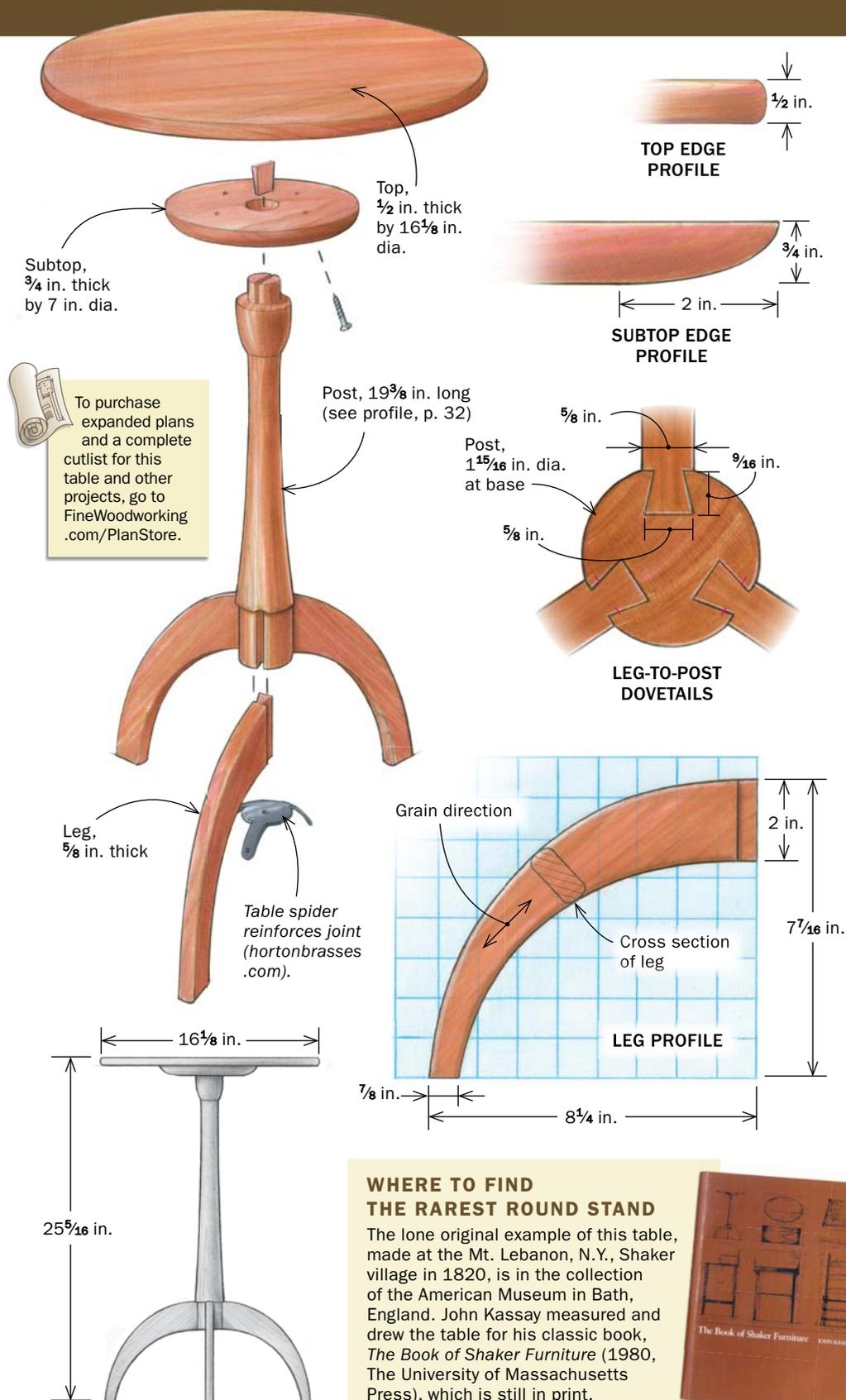
It also happens to be the rarest of round stands; only one original in this form is known to exist. I've since built several reproductions, in a variety of woods, and refined the parts until they are as near to the original as possible.

Start with the top

My first move when I make this stand is to glue up a blank for the 16 $\frac{1}{8}$ -in.-dia. cherry top and put it aside. A single-board top (like the original) is ideal, but because that kind of plank is rarely available, I usually cut two pieces from a 9-in. or 10-in. board and edge-glue them. I look for a flatsawn or riftsawn board and disguise the gluejoint by putting two rift-to-quartersawn edges together.

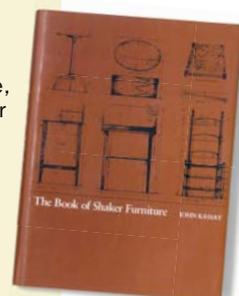
Turn the post

Start the post by selecting stock with grain as straight as possible, and turn

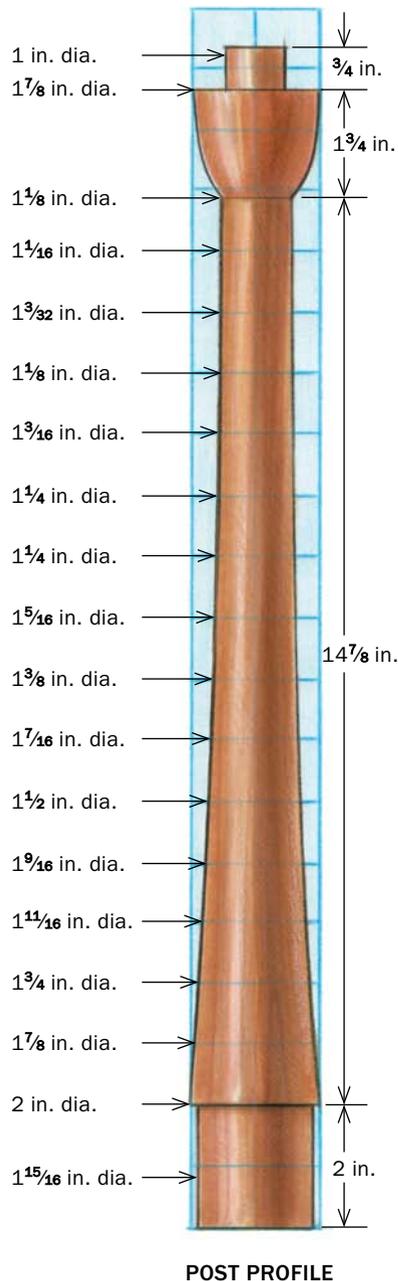


WHERE TO FIND THE RAREST ROUND STAND

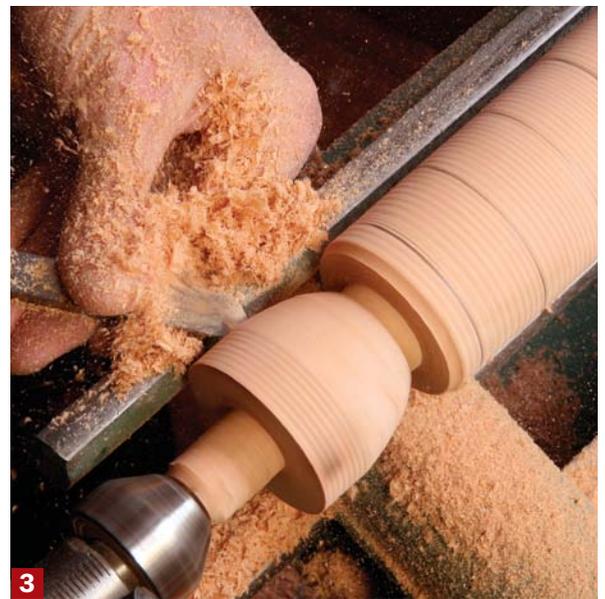
The lone original example of this table, made at the Mt. Lebanon, N.Y., Shaker village in 1820, is in the collection of the American Museum in Bath, England. John Kassay measured and drew the table for his classic book, *The Book of Shaker Furniture* (1980, The University of Massachusetts Press), which is still in print.



Turn a slender post



Marked and measured. After turning the cylinder, use a pencil to transfer diameter marks from a story stick (1). Then turn the tenon (2) and the bulb at the top of the post (3).



a 2-in. cylinder. Using a story stick, make pencil marks on it at each of the dimensions. On the top end, turn a tenon 1 in. dia. by $\frac{3}{4}$ in. long. Just below the tenon is a flared bulb. Its curve is not an arc, but rather a section of a parabola. Turn the diameter below the bulb first, using a parting tool. Then use a small gouge and a spear-point scraper to turn the bulb itself.

The long part of the post is not a straight taper, but a concave flared curve, and reproducing that subtle shape requires precise turning. I use a parting tool fitted with a gate jig to make a series of cuts that will control the shape of the curve. If you prefer, you can use calipers instead of the gate jig. The last section of the post—where the legs will dovetail in—must be perfectly cylindrical, and the small shoulder should be crisp. Make a series of depth cuts with a parting tool, clean them up with a spear-point scraper, and follow with sandpaper on a block.

With the bottom cylinder complete, move on to the main section of the post, cleaning out the waste between the parting-tool cuts with a sharp gouge and then fairing the curve with a thumbnail gouge. When the turning is finished, leave the lathe running and sand the whole post to at least 400 grit, followed by a rubdown with 0000 steel wool.

Shape and dovetail the legs

Make a pattern for the legs and trace it three times onto $\frac{5}{8}$ -in.-thick stock, orienting the pattern so the wood's grain runs more or less straight between the two farthest points of the leg. Cut out the legs on the bandsaw and sand the curves fair. Then, at the router table, use a roundover bit to cut a shallow arced profile into the curved edges of the legs. Next, create the dovetail keys on the legs at the router table, using a 14° dovetail



1



2



3

Dial in the diameters. Use a gate jig (1) or a pair of calipers to control the depth of cut. Establish the critical diameters of the post with a parting tool (2). Then remove the waste between the grooves with a heavy, shallow gouge (3), before fine-tuning the surface with a fingernail gouge.



Sandpaper cleanup. Smooth the taper and the bulb with sandpaper, going through the grits from 150 to 400, and finishing with steel wool. For the cylinder at the base, back up the paper with a sanding block to be sure the surface stays flat.

TURN THE SUBTOP WHILE YOU'RE AT THE LATHE



Shaping the subtop. After bandsawing out a disk, turn it perfectly round. Then shape the curved profile on the bottom edge with a round-nosed scraper.

Shape the legs



Leg layout. Trace the shape using a cardboard template, orienting the grain so it runs straight from tip to tip (see leg profile, p. 31).



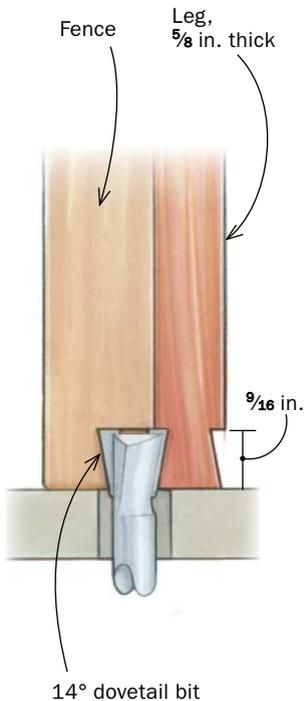
Strapped in for sanding. After cutting the legs, tape them in a stack and smooth the ends and the outside curve at the disk sander (left). Sand right through the tape. Re-tape the stack, then fair the inside curve (right) with a drum sander.



DOVETAIL THE LEGS TO THE POST

Standing dovetail.

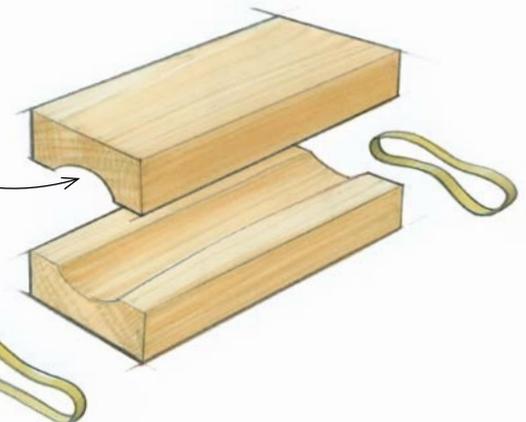
Cut the sliding dovetail keys at the router table, using a dovetail bit and a tall fence.



Socket layout. With the post inverted in the vise, scribe around the dovetail key. Pine cushion blocks hold the post steady.

Shape the hollows in the cushion blocks with a gouge. Taper them to match the taper of the post.

Rubber bands hold blocks on round post.



bit. Then finish-sand the legs to 400 grit and rub them with 0000 steel wool.

Mark and cut the dovetail sockets

To properly locate the dovetail sockets, clamp the post upside down in the vise and divide the bottom into three 120° sections. You can do this with a protractor or a compass, but I do it with paper. Wrap a strip of paper around the end of the post, marking and cutting it to the exact circumference. Flatten the paper on the bench and divide its length into exact thirds. Then wrap the paper around the post again and transfer the marks to the end grain.

Now position one of the leg dovetails on the post's end grain so that it sits flat and the tips of the shoulders just touch the rim of the post. Put it just to one side of one of the third marks. Then scribe around the dovetail with a knife. Repeat the process for all three legs, and be sure to number the legs and their mating sockets. If the knife marks are faint, I highlight them with a chisel. Use a small square and a pencil to bring the lines down the face of the post to the shoulder.

To cut the sockets, position the leg in the vise at about a 30° angle. Using a rip dovetail saw, cut on the inside of the pencil lines, following the knife marks. Since you have to stop shy of the shoulder, this angled cut will create a bit less than half of the cheek of each dovetail. The rest of the work is done with a chisel, using the sawn plane as a guide.

Carefully define the end of the socket by chopping downward right at the shoulder line, then begin chiseling out the bulk of the waste between the sawcuts. Once most of the waste is removed, place the chisel into the knife cuts and pare down the slot. If the grain runs perfectly straight, this works fine. Unfortunately, it often runs to the left or right, in which case one side pares very well, while the other side tears into the post. When that happens, instead of paring along the grain from the end of the socket, pare across the grain from the outside of the post.

Fit and glue up the dovetails

Once the socket is well-defined, begin fitting. Mark the three leading edges of the dovetail key with a pencil, and push the leg in as far as it will go with moderate hand pressure. The graphite



Extend the layout lines. Use a small square and a pencil to carry the scribed lines down to the shoulder.



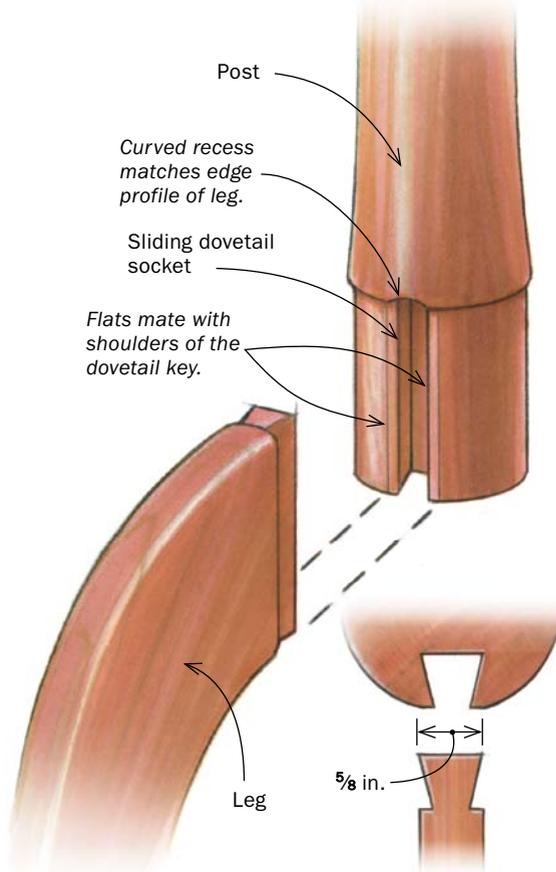
Saw the socket. With a rip dovetail saw, cut a kerf just inside the pencil lines and as deep as you can without hitting the shoulder.



It's chisel work from here. Establish the shoulder of the socket with several mallet hits (far left), then remove long chips of waste, working from the end with the chisel horizontal. Extend the cheeks beyond the sawkerfs with vertical (left) and horizontal chops.

Put it all together

ATTACH THE LEGS



Flat tops. Cut flats on each side of the socket (left) to seat the shoulders of the dovetail keys. Use a shallow gouge (right) to cut a crescent-shaped recess to accept the rounded edge of the leg.



Mark and fit. To fit the joint, rub the leading edge of the dovetail key with a pencil, insert the key, and pare darkened wood from the socket. When all the joints fit, apply glue and pull them home with hand pressure (right).



BRACE THE BOTTOM AND ADD THE TOP



Joint cleanup. After the glue cures, smooth the bottom of the post with a drum sander.

transfers to the edges of the socket and shows where the dovetail is binding. Pare this away from the socket, and repeat the process five, 10, even 15 times until the leg slides all the way to the end. It should seat with no wobble. Too loose a fit means a weak joint. But you shouldn't have to pound a leg in, either; if it's too tight it could split the leg. When all three legs are fitted, glue them in. If they fit right, there's no need to clamp them.

Subtop and true top

Bandsaw out the subtop, mount it on a faceplate, and shape its edge profile on the lathe. After turning, drill a 1-in. hole in the center of the subtop to mate with the tenon at the top of the post. The original table has a small metal plate, or spider, at the bottom of the post to reinforce the joints.

You can cut your own spider out of $\frac{1}{8}$ -in. sheet metal, or order one from Horton Brasses.

Finally, bandsaw the top to a 16-in.-dia. circle and fair it on the disk sander. Then create the edge profile with a balloon sander. Alternatively, it could be done with a rasp, file, spokeshave, or router. Finish-sand the top to 400 grit and attach it with four wood screws up through the subtop.

I use a straight linseed-oil finish of three or four coats. Since it has no UV filters, linseed oil allows the cherry to darken faster than any other finish. □

Christian Becksvoort is a contributing editor.



Bottom needs support. Screwing in a metal brace, or spider, reinforces the sliding dovetails. Becksvoort bought his spider and modified it, cutting several inches off each of its legs.



Crosswise wedge. To avoid splitting the subtop, orient the wedge perpendicular to the grain. After the glue cures, saw off the wedge and chisel the tenon flush. Then attach the top with screws through the subtop.

