

Shaker-Inspired Hall Table

BY CHRISTIAN BECKSVOORT

Arched aprons and splayed legs
add balance and grace



This long, narrow table, which I designed years ago, is a kind of chameleon. You can use it in a variety of ways and in all sorts of places: as a hall table, a display table, behind a couch, or even as a sideboard-like serving table. No matter where you put this piece, it looks good and fits in. The design is sturdy but looks light and attractive, thanks in large part to the splay of the turned and tapered legs.

Unless I'm doing an exact Shaker reproduction, I splay all table legs that are turned and tapered. Otherwise, they tend to look pigeon-toed and slightly unstable. And for a long, narrow table like this, there's more than just appearance at stake. The splayed legs make the base wider at the floor than under the top, giving it a surer stance.

For the maker, part of the beauty is that this gently splayed stance is easy to create with just a few simple, angled cuts at the tablesaw. This project is perfect for getting acquainted with angled joinery, and for working with the lathe. The angles



are all small and easy to cut, and the turning won't overwhelm you. I'll show you a no-nonsense way to get a nice straight taper on those legs, a deceptively difficult turning task.

A straight approach to round legs

These legs are square at the top where they join the aprons, with the turned portion beginning 4 in. from the top. The most difficult part of the turning is cleanly cut-

ting this transition from square to round.

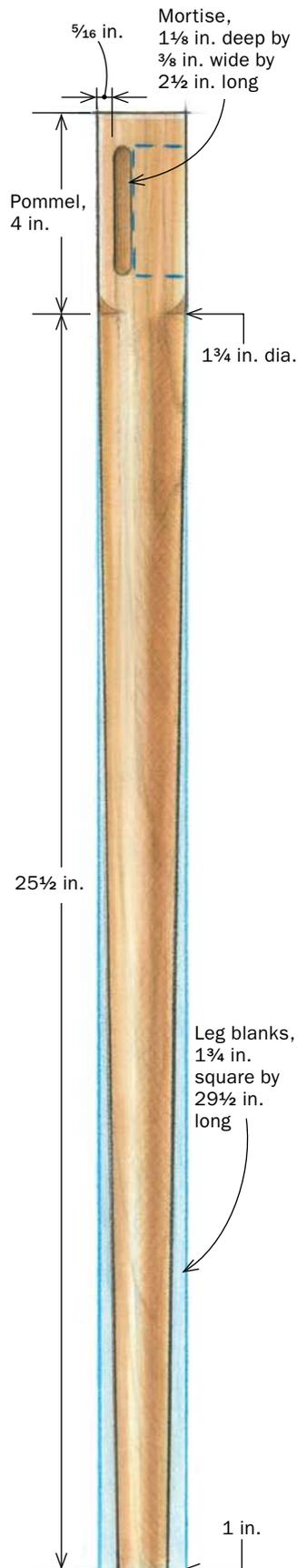
With the blank centered in the lathe and the transition point marked on the stock, set the lathe at approximately 2,200 rpm and use a $\frac{1}{2}$ -in. spindle gouge to turn away from the mark until you have a few inches of true round. Next, cut the transition using a diamond-point tool held on edge, carefully entering the cut at about a 45° angle. It takes a steady hand to make this cut without knocking off the square

corners; I suggest practicing on cheap stock until you master the technique.

Once this is done, use a roughing gouge to start cutting the taper at the bottom of the leg, checking your progress with a pair of calipers until you've reached the 1-in. bottom diameter. Then use the gouge to connect the top and bottom diameters. I'm a furniture maker, not a turner, so I don't bother trying to get a perfect taper and smooth finished surface with the gouge

TURNING FOR NON-TURNERS

You don't need to be a full-time turner to make perfect tapers. Becksvoort marks the high spots with one long block and sands them smooth and straight with another.



From square to round. After turning the first few inches of the round section with a spindle gouge, use a diamond-point tool (inset) to cut a clean bevel at the transition (above left). Lay out the beginning of the cut and then plunge in at 45°. A 45° mark on the tool rest is a good visual guide. Afterward, use a roughing gouge to rough in the taper (right).



Magic marker. To identify high spots on the turning, start by covering one edge of a hardwood block with pencil lead.



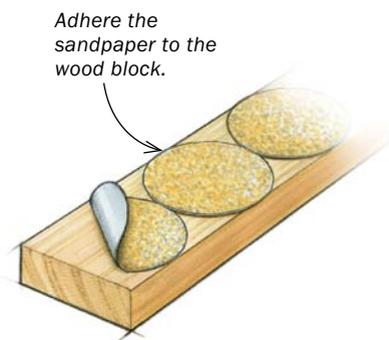
Pressed into action. Held against the spinning workpiece, the block leaves graphite on the high points. Use the spindle gouge to take down these areas, then repeat until the taper is as straight as possible.



Online Extra

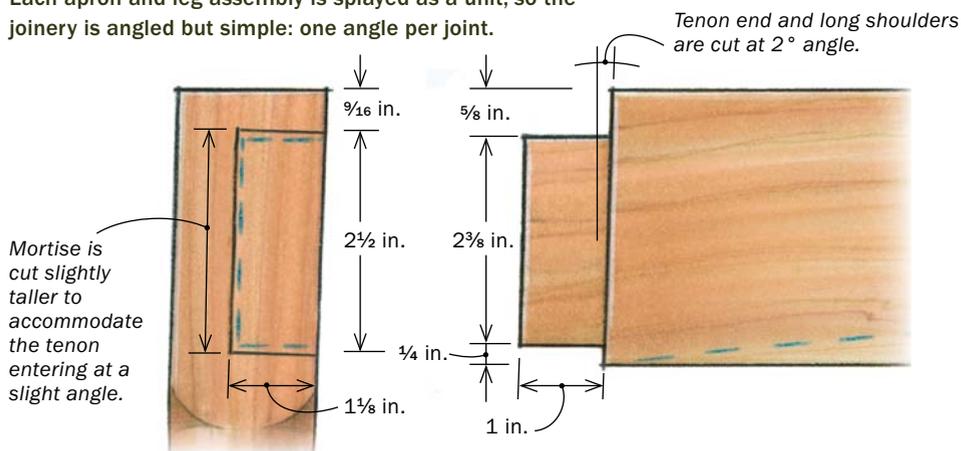
To see how easy this is, watch the free video at FineWoodworking.com/extras.

Super sanding block. Use a straight piece of stock, one face covered with 80- to 100-grit sandpaper, to straighten the taper. Then hand-sand through 400-grit and burnish with 0000 steel wool.



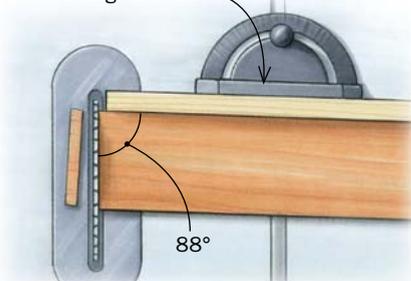
ANGLE THE SHOULDERS TO CREATE THE SPLAY

Each apron and leg assembly is splayed as a unit, so the joinery is angled but simple: one angle per joint.



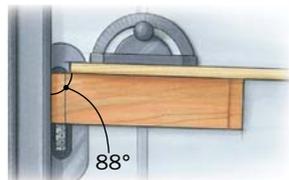
CUT THE TENON ENDS

Set the miter gauge to cut the angled ends.

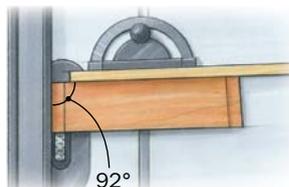


Where the splay comes from. Angle the ends of the pieces, which become the reference for angling the shoulders (below).

CUT THE LONG SHOULDERS



1. Leave the gauge at 88° to cut the first shoulder and cheek. Flip the workpiece end for end to cut the second.

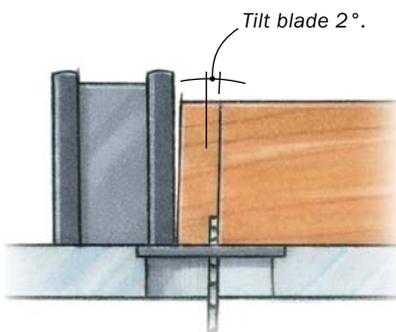


2. Set the gauge to 92° and cut the opposite shoulders and cheeks in the same way.



Why dado? A dado set cuts the cheeks and shoulders at the same time. Angle the miter gauge until the end of the workpiece rests flush against the fence.

ANGLE THE TOP AND BOTTOM SHOULDERS, TOO



Final cuts. Tilt the blade 2° to match the angle of the existing shoulder (above). You can cut two pieces at once. Then sever the waste at the bandsaw.

or a skew chisel. Instead, I get the results I'm looking for from a 2-ft.-long piece of hardwood. I color one edge with pencil graphite and hold it against the turning while it's spinning. The graphite marks the high points, which I then take down with a gouge or skew chisel. After three or four tries, the taper should be fairly straight, but not perfect.

The other side of the hardwood piece (or use a separate piece, if you prefer) is covered with 80- or 100-grit sandpaper. Holding that edge against the spinning taper assures flatness. I then hand-sand the spinning leg with 150-, 220- and 400-grit sandpaper, stopping the lathe between grits to sand with the grain. Last, I use 0000 steel wool for a smooth, glossy surface that is ready for a finish.

Before moving on to the aprons, go ahead and cut the mortises on two adjacent sides of the square sections of the legs. The mortises are cut at the usual 90°. Putting the splay in the table's legs is a matter of cutting some fairly simple angled joinery on the aprons. That's next.

Easy way to splay

The ends of the tenons, and the tenon shoulders, are cut at a 2° angle, making each apron longer at the bottom than it is at the top. When the resulting joints come together, the tops of the legs lean inward and the feet splay out. You might think you need compound-angled shoulders, but because the aprons tilt with the legs, you don't.

With the apron stock milled to final thickness and width, trim each workpiece to length with a 2° angled crosscut on the tablesaw. Pay attention to the orientation of the piece for each cut—make sure that each end is angled in the right direction.

When all the ends are cut, switch to a stacked dado set, which will let you cut the tenon cheeks and shoulders simultaneously. You'll once again guide the cuts with the angled miter gauge, this time using the tablesaw's fence to stop the cut at the tenon shoulder. Note: You'll only be able to cut one cheek and shoulder on each tenon with your initial miter-gauge setup. To cut the opposite sides at the correct angle, you'll need to reset the gauge to 2° in the other direction. I find it easier to make all of the cuts at one setting first, before resetting the gauge.

Last, I cut the top and bottom shoulders, standing the workpieces on edge against

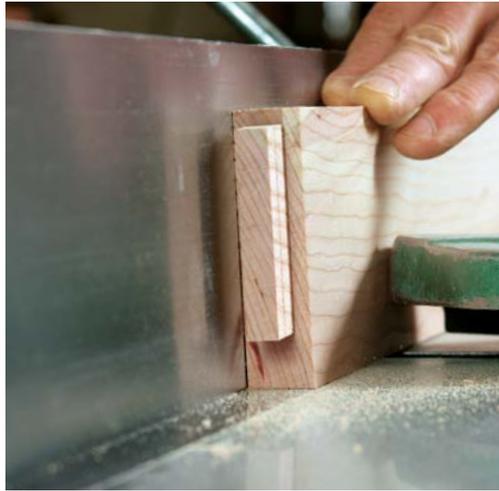
the miter gauge and angling the blade to make the cut. I finish the work at the bandsaw, running the workpiece against the fence to sever the waste and complete the tenons. To make sure that this straight tenon has room to fit when the mortise is angled, I plan for a little top-to-bottom slop in the fit, and I use a knife to make wedge-shaped trims as needed for clearance.

Angled cuts create a flat surface

At this point, you can dry-fit the legs and aprons, holding the assembly together with a band clamp to see how the joints fit.

With the base together, you'll see that the top edges of the aprons—and the top inside corner of each leg—all tilt inward. So the next step is to make all of these surfaces flat and in the same plane to accommodate the top. To do this, disassemble the base and run the tops of the aprons over the jointer with the fence tilted 2°.

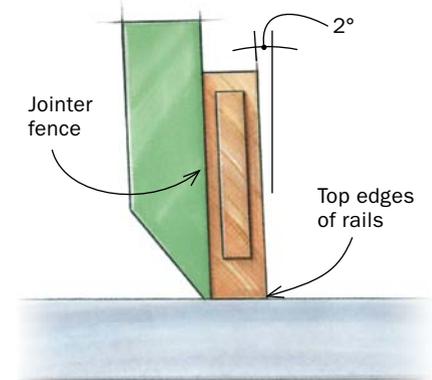
Trimming the tops of the legs at the proper angle requires a compound cut. The cut itself is easy to execute, but you'll need to pay attention to the layout and the setup on your tablesaw. To make it as foolproof as possible, I use a pencil or colored marker to darken the inside corner on the top of each leg. That corner should remain after the cut is made. Next, use a



Flatten the apron tops. With the jointer fence at a 2° angle, trim the apron tops so they'll be flush against the tabletop.

BEVEL THE TOP OF THE BASE TO MATCH

When the base is dry-fit, the top of each component will be canted inward. So it's necessary to trim the top edges level.



Same for the legs. To mark the top of the leg for trimming, start by marking the inside corner (red dot). Begin the layout at this corner. Use a bevel gauge set at a 2° angle to carry the lines around the corners.

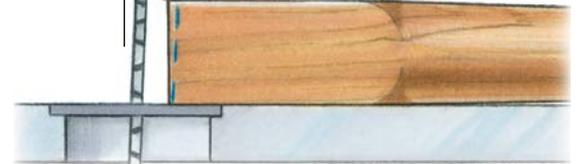


Two degrees of separation. With the highlighted corner at the bottom rear, a compound cut on the tablesaw removes a thin wedge of material.

TOPS OF LEGS GET A COMPOUND CUT

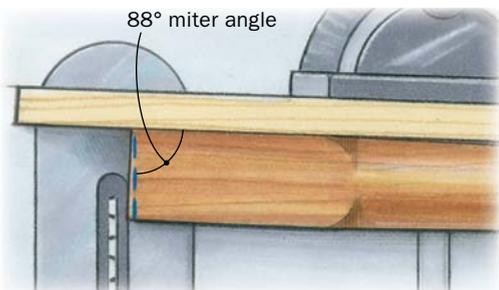
SET THE BLADE ANGLE

2° blade angle



SET THE MITER ANGLE

88° miter angle

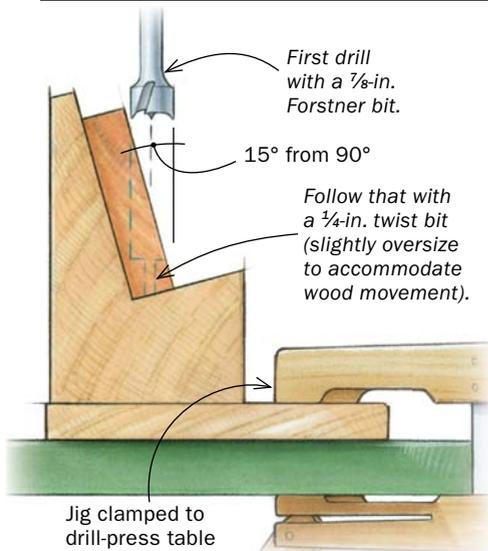


FINISH UP THE BASE

Lay out the apron arches. A flexible straightedge and a bar clamp create an easily varied, regular arc for tracing. Bandsaw the curves and sand them smooth.



DRILL POCKET HOLES IN THE APRONS



Pocket-hole jig for the drill press. A shop-built fence holds the inverted aprons at an angle to drill for the screws that will anchor the top to the base.

PEG THE APRONS TO THE LEGS



Pin the tenons. After gluing up each joint, Becksvort drills through the leg and through the tenon for a walnut peg (above). The pin adds interest and offers a bit more joint strength. With the side assemblies glued up, join them with the end aprons (right). Use bar clamps with rubber pads on the jaws to accommodate the angled legs.



bevel gauge set at 2° to strike pencil lines marking the cuts on the two inside faces.

On a saw with a left-tilting blade, orient the workpiece with the marked corner riding the table at the rear of the cut. Tilt the blade 2° and angle the miter-gauge fence clockwise the same amount. Position the stock so the blade just removes the layout line on the leading edge of the workpiece.

A short length of $\frac{3}{8}$ -in. stock under the narrow end of the leg will give you greater control during the cut. You may also find it helpful to practice on a piece of 1 $\frac{3}{4}$ -in.-square scrap first.

With these cuts made and the joinery fitted, the re-assembled base should now have a flat top with all eight parts flush and in the same plane. The table's feet will not sit flat on the floor at this point, but I don't flatten them until the top is attached, in case the slightest warp or stress in the top causes the base to skew.

Arches make the piece look light— Before glue-up, cut the arches into the lower edges of the aprons. To lay out the curves, I clamp a flexible straightedge between the jaws of a bar clamp, tightening until I reach the desired amount of bow.

For visual harmony, it's important to vary the amount of bow between the long side aprons and the short ends—a shallower bow will appear more pronounced on the shorter pieces. On the long aprons, I put the top of the bow at 2 $\frac{3}{8}$ in. from the top of the apron. On the ends, the apex should

FINISHING UP



Shape and attach the top. After cutting and smoothing a shallow arc in each end of the top, Becksvoort uses a block plane and sandpaper to shape a slight bullnose profile on all four edges. Do the end grain first (above). To attach the top, Becksvoort centers the base, then uses a scratch awl to transfer the hole locations, pre-drills the tabletop, and drives the screws (right).

be $2\frac{5}{8}$ in. from the top. Cut the arch on the bandsaw and smooth the curve with a spokeshave or sand by hand.

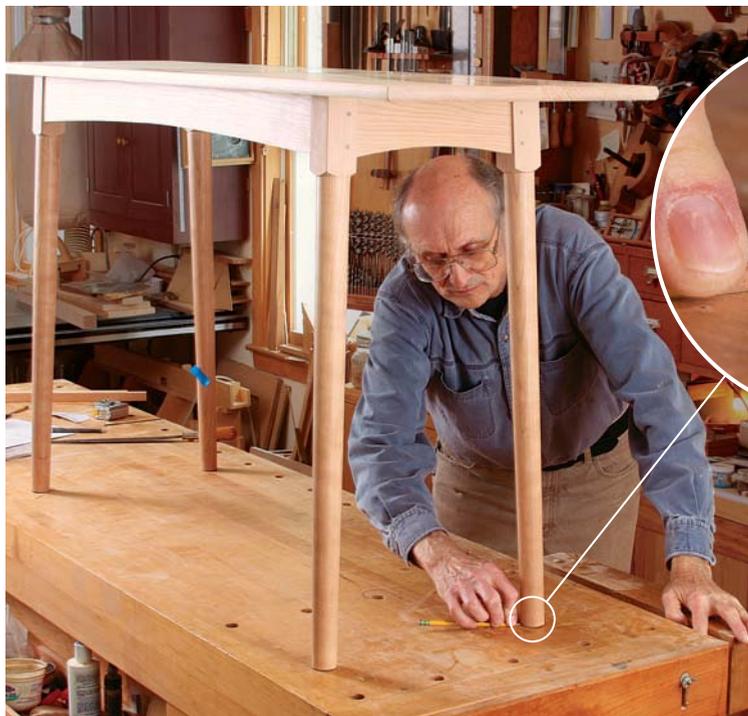
All four rails and the square portions of the legs should now be sanded to 400-grit, glued, and pinned. I usually glue up the two long sides first, pin them, and then glue in the short rails and pin them.

Subtle curves accent the top

The top of this table is 16 in. wide. Ideally a single board would look the most attractive, but stock that wide is not always available. So sometimes I use an 8-in. or 9-in. board, 9 ft. to 10 ft. long, cut in half, matched as well as possible, and glued side-to-side. After the glue is dry, I cut the top to exact width and length.

Bandsaw a convex $\frac{3}{4}$ -in. curve on the ends, again using a straightedge and clamp to lay out the curve. All four edges are then given a slight bullnose radius. This can be done either with a router or with a block plane and sandpaper. Finally, smooth the top with a handplane or by sanding to at least 400 grit and polishing with 0000 steel wool.

To attach the top, center the base upside down on the underside of the top. I anchor the two end holes with drill bits (or 16d nails) and use an awl to transfer the positions of the side holes to the underside of the top. I drill slightly oversize holes along the sides, to accommodate seasonal



Flatten the feet. Plane a pencil to flatten one side slightly and use it to mark the feet for trimming with a rasp. Afterward, chamfer the circumference with a file.

movement in the top. Now screw the base to the top.

Good trick for leveling legs

The last step before finishing is to flatten the bottoms of the legs. Turn the table right side up and set it on your tablesaw, benchtop, or another reliably flat surface.

I position a pencil flat on this surface to trace around each leg, turn the table upside down, and use a rasp and file to trim

to the lines. I rasp each foot flat, so there is no wobble, then use a file to add a small chamfer all the way around.

To finish the table, I remove the top and oil the table with a 50/50 mix of Tried & True Varnish Oil and spar varnish. After letting it dry for 24 hours, I rub everything down with 0000 steel wool, then add two or three more coats. □

Christian Becksvoort is a contributing editor.