



Strong, Stunning Sideboard

Use, strength, and beauty
blend in a contemporary
case piece

BY CHRIS GOCHNOUR

Sideboards are among my favorite pieces of furniture to build. They offer great utility—whether used in a dining room for dishware or a family room for entertainment equipment—and they invite a wide array of approaches in terms of structure and joinery, materials and finishes. With care taken in the design phase, the sideboard form is also often quite beautiful.

For this sideboard I used half-blind mitered dovetails to join the case, providing excellent strength but also enabling me to create a waterfall effect at the ends of the top—the grain runs continuously up one side, across the top, and down the other side. For the other

joinery in the piece, none of which is exposed, I used Domino slip tenons. I built the case with solid riftsawn white oak, which has quiet grain and a tawny tone. That set the stage for some splashes of color and figure in the panels of the sliding doors, which were made with veneers of live oak that I sliced from a spalted firewood log. I built the base with white oak, but to differentiate it from the case I darkened it by fuming with ammonia.

A JEWEL OF A JOINT

Gochmour joined the corners of his sideboard with half-blind mitered dovetails, a strong joint that punctuates the white oak case.

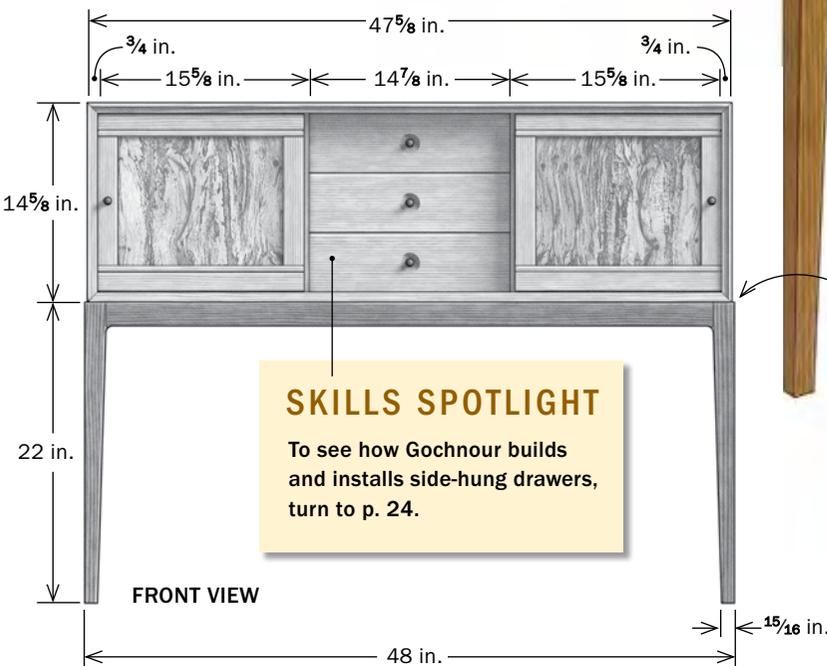
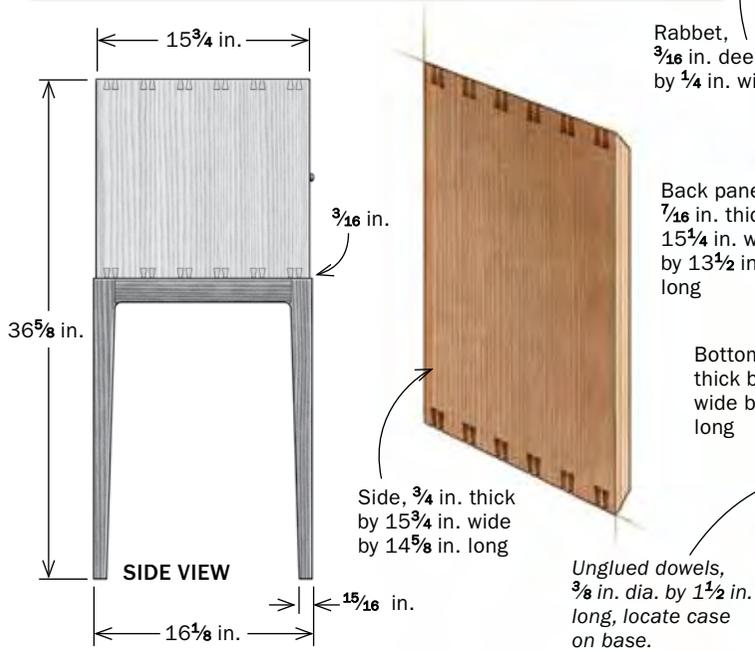
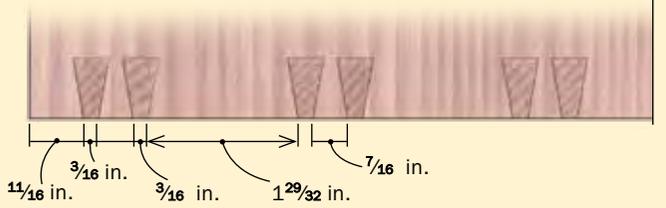


Traditional meets modern

Chris Gochnour's contemporary sideboard blends traditional half-blind mitered dovetail joinery with modern Domino slip-tenon joints.

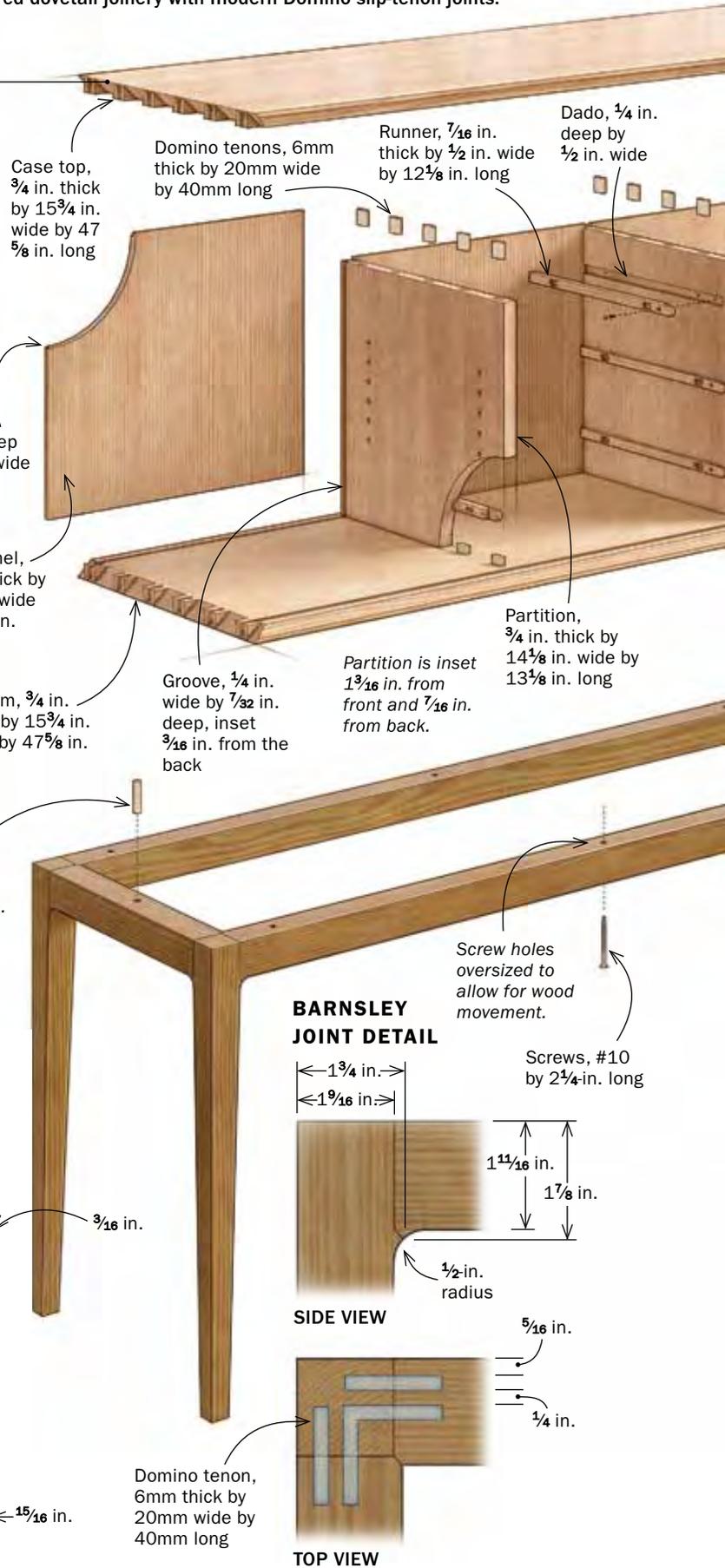
MITERED DOVETAIL LAYOUT

For extra visual pop, the pins are spaced in pairs. To accommodate the miter, at both ends the joint starts with a half tail instead of the typical half pin.

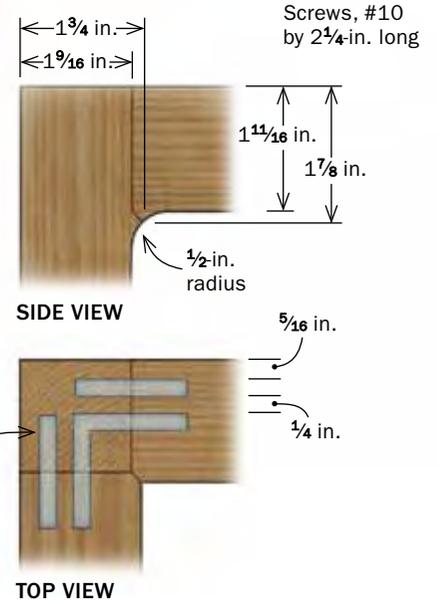


SKILLS SPOTLIGHT

To see how Gochnour builds and installs side-hung drawers, turn to p. 24.

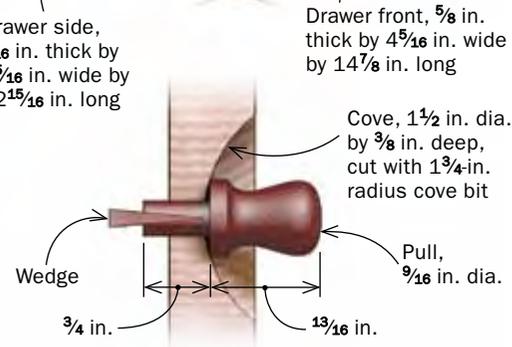
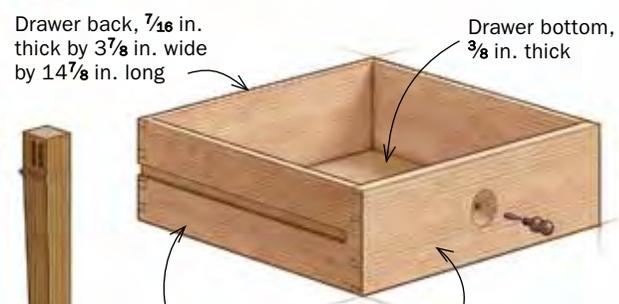
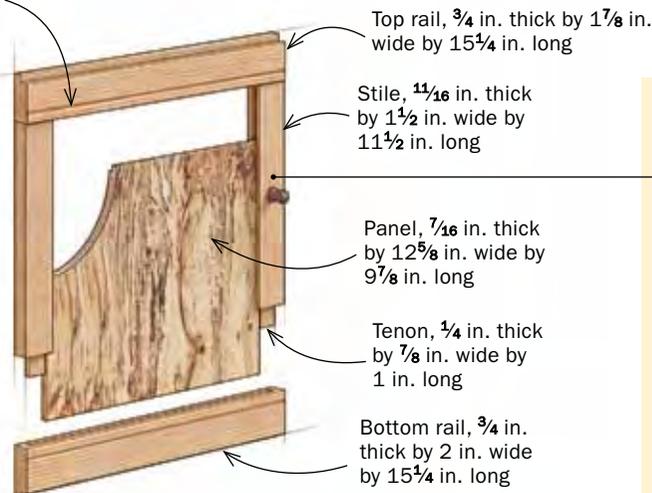
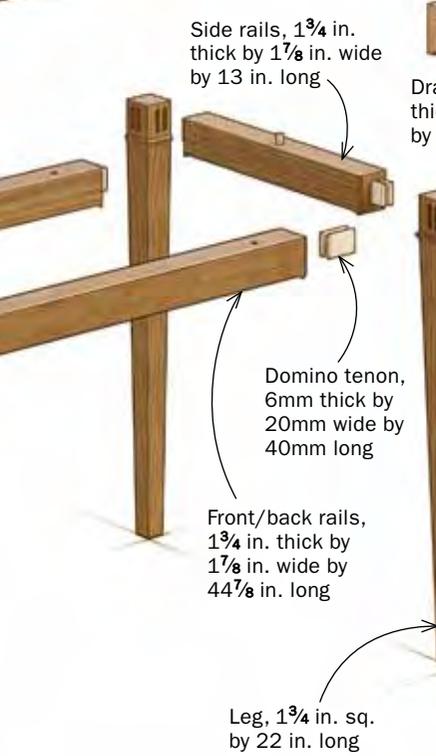
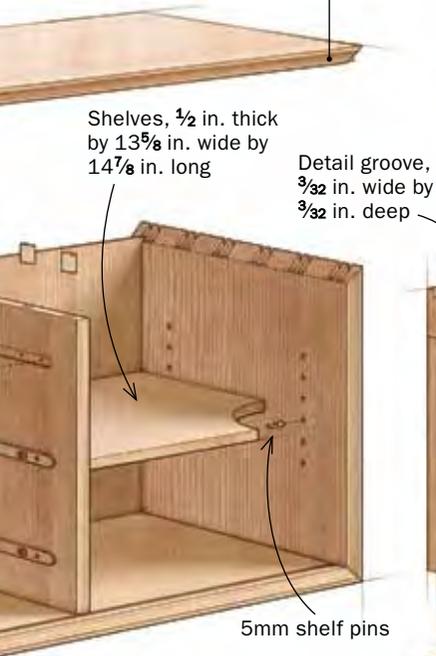
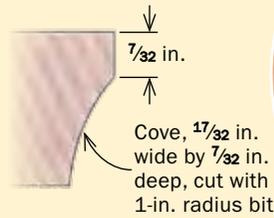


BARNSELY JOINT DETAIL



DECORATIVE COVE

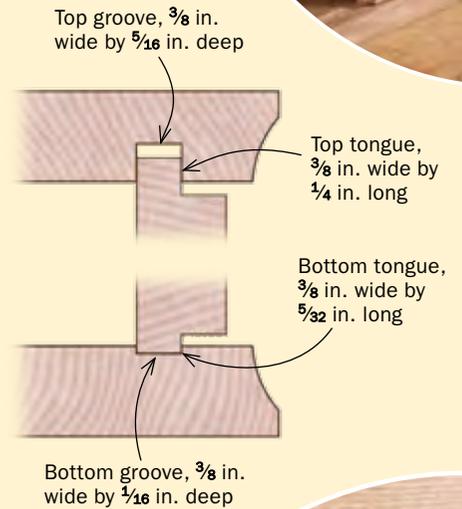
After cutting stopped grooves in the case parts for the sliding doors and for the back panels, Gochnour routs a wide, decorative cove along the front and back edges.



DRAWER PULL DETAIL

SWEET-SLIDING DOORS

To determine the length of the top and bottom tongues on the sliding doors, Gochnour made a dummy door in MDF. Then he used the same tablesaw fence settings to mill tongues on the real doors.



RECESS TIME

Gochnour inset the turned drawer pulls so that the doors would slide past the drawers. He cut the recess for them with a router bit run at slow speed in his drill press. Then, using the same fence and stop-block settings, he drilled a perfectly centered hole for the pull's tenon.



Hand cut the half-blind mitered dovetail



Tail transfer. After cutting tails in the case sides just as he would for through-dovetails, Gochnour uses a knife to transfer the tail pattern to the pin board.



A different dovetail. Having continued the layout onto the inside face of the pin board, Gochnour saws the cheek kerfs on a 45° angle.

Two fine saws rough out the waste. Where the gaps between pins are wide, Gochnour uses a coping saw to remove the waste wood. But in tighter quarters he uses a fretsaw, whose tiny blade permits him to make 90° turns in the backsaw kerfs.



A backsaw is simpler. Where it's feasible, Gochnour clamps the pin board upright and uses a backsaw to remove waste.



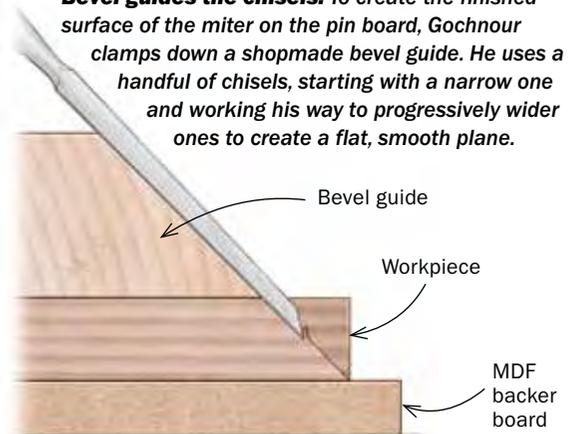
Half-blind mitered dovetails: traditional layout with a twist

I love the strength and integrity of the half-blind mitered dovetail joint and the classic aesthetic impact it adds to a piece. For this sideboard it also offered minimal interruption of the waterfall grain pattern I wanted. You can cut the joint largely with machines (see Master Class, *FWW* #236), but I find it simpler and quite efficient to cut it mostly by hand.

As with typical dovetail joinery, I cut the tail portion of the joint first. On this sideboard, the tails are on the cabinet sides, so that's where layout starts. The layout differs from conventional dovetails because here you'll want the joint to end with a half tail at the front and back of the case instead of a half pin. This is essential due to the miter that will be cut later. One other thing that sets the layout apart is that the full baseline is scribed only on the interior face of the tail and pin boards. On the tail boards there is a baseline on the outside, but drawn with a pencil. After the tails are laid out, I use the marking gauge to scribe a partial baseline on the outside—but scribing only in areas where wood will be removed. Although I milled the stock a smidge thicker than $\frac{3}{4}$ in., I set the marking gauge for scribing the baseline right at



Bevel guides the chisels. To create the finished surface of the miter on the pin board, Gochnour clamps down a shopmade bevel guide. He uses a handful of chisels, starting with a narrow one and working his way to progressively wider ones to create a flat, smooth plane.



$\frac{3}{4}$ in. This leaves a tiny flat at the tips of the miters when they are complete. The flat is removed after glue-up, bringing the miters to a seamless corner.

Apart from these steps, the execution of the tails is just the same as with conventional dovetail joinery. Once the tails are cut, you can transfer them to the pin boards and set the tail boards aside.

Cut and pare the mitered pins

Transferring the tails to the end grain of the pin board again parallels typical through-dovetail joinery. Once that's done, turn the pin board so that the interior is facing out and, using a square and a marking knife, extend the layout marks down the inside face of the board to the baseline.

Cutting the cheeks of the pins means sawing at a 45° angle. Because of the length of the pin board, I find it awkward sawing with it clamped upright. Instead, I mount it flat on my benchtop with its outside face down. That makes the sawing much easier. With the pins defined, I remove the waste between the back-saw kerfs with a coping saw. This sawing too, is done on a 45° angle. Between closely spaced pins I use a fretsaw for its narrower blade and tighter turning radius.

To bring the miter to a nice, flat surface, I use chisels and a beveled guide. I align the leading edge of the guide with the baseline, and the backs of the chisels ride on the bevel as I pare away the waste left by the coping saw and fretsaw. I find



Miter the tail board. With a crosscut sled on the tablesaw, convert the conventional tails you cut to mitered ones. To reduce chipout, take multiple shallow passes as you sneak up on the 45° layout line.



Test the fit. Check all four case joints as you finish them and tweak the fit as needed.

Interior case joinery

Dominos between the dovetails. To guide the Domino machine as he cuts mortises for the partitions, Gochnour uses a piece of MDF that has been cut to the interior width of the drawer compartment and marked with the mortise locations.



TIP



Nifty template. When cutting Domino mortises in the ends of the partitions, Gochnour uses a layout tool he made by cutting a channel in a piece of poplar and gluing a clamping straightedge into it. He draws his mortise centerlines on the poplar and clamps the template to the workpiece. For future jobs he can erase these mortise layout lines and draw new ones.

that many narrow cuts are more effective than fewer wide ones. I start with a $\frac{1}{4}$ -in. chisel and make a couple of cuts from the baseline to the miter's edge. Once I have a wide enough channel pared, I switch to a $\frac{3}{4}$ -in. chisel. Being broader, it has more stability, resulting in a flatter surface. I proceed across the miter, paring from baseline to tip and taking just $\frac{1}{8}$ in. to $\frac{1}{4}$ in. of material per cut.

With the pin board complete, I use a tablesaw crosscut sled to miter the tail boards. I make the miter cut in a series of shallow passes. That done, it's time for a test fit. If things are tight in spots, the pins can be adjusted with chisel cuts or judicious work with a file.

Dominos fall into place next

With the mitered dovetails fitted, I move on to the rest of the case joinery. First I cut Domino slip tenons for the two partitions, which divide the case into three compartments. I cut the mortises in the case top and bottom first, using a story board that is cut to the width of the center compartment and is marked with the tenon locations. To cut the mating Domino mortises in the ends of the partitions, I make a different story board with the same layout spacing and clamp it to the partition.

Prepare for the drawers and doors

Now is the time to cut dadoes in the partitions to receive the runners for the side-hung drawers. (To read about my side-hung drawer technique, see Skills Spotlight, p. 22.)

The sliding doors need grooves to slide in, and I rout them now. These grooves are stopped at both ends. I cut them on the router table, starting and stopping them just shy of the dovetail baselines, and then I square the ends with a chisel. While I'm at the router table, I also cut grooves for the back panels in the case parts and the partitions. The case top and bottom get stopped grooves, but the case sides and the partitions get through-grooves.

This is also the time to rout the decorative cove on the front and back edges of the case parts. I used a 2-in.-dia. cove bit but set the router fence so that only a portion of the bit was exposed.

Assemble the case

The case is glued up in three steps: First the partitions and back panels are

A patient assembly



One step at a time. Gochmour first glues the partitions and back panels in place, dry-clamping the ends to make sure the case is square. To allow for movement, he glues only the center few inches of the back panels. And he uses slow-setting liquid hide glue so that after the clamps are on he can adjust the position of the panels, making certain the reveals are even.



Now for the ends. Once the glue from the first assembly is cured, Gochmour removes one dry-fitted end, applies glue, and clamps it back on. When that one is cured, he does the same for the other end, finishing the case assembly.

glued to the case top and bottom, then one case side gets glued on, then the other case side.

For step one, I glue the Dominos and also put a small amount of glue in the center few inches of the top and bottom grooves that house the back panels. Gluing the back panels at the center lets them expand and contract with the seasons while ensuring that the reveals around them will remain consistent. I use hide glue for this assembly because its longer open time lets me adjust the reveals (using the narrow edge of a card scraper like a mini pry bar) before the glue sets.



Careful cleanup. With assembly complete, Gochmour flushes up the pins and tails. His bevel-up smoother handles both end grain and face grain well. Then he softens the corner with a block plane.

Build the base



Mini miters. The legs and rails of the base meet in a Barnsley joint—a small miter that divides a shared curve. After cutting Domino mortises, Gochnour cuts the small miters on the two inside faces of the leg.



A slice off the inside. The leg surfaces that get the miter also get a shallow recess to accept the rail. Gochnour makes the cut at the tablesaw with a tenoning jig.



Matching the miter. Using a scrap milled to the width and thickness of the rail, Gochnour sets up the tablesaw to miter the rails.



The case sides are clamped in place dry during step one. When the glue for the first assembly is cured, I use a dead-blow hammer to remove one case side, apply glue to the dovetails, and clamp it back on. When that glue-up is cured, I do the same with the other side, and the assembly is done.

Barnsley joint adds a challenge to the base construction

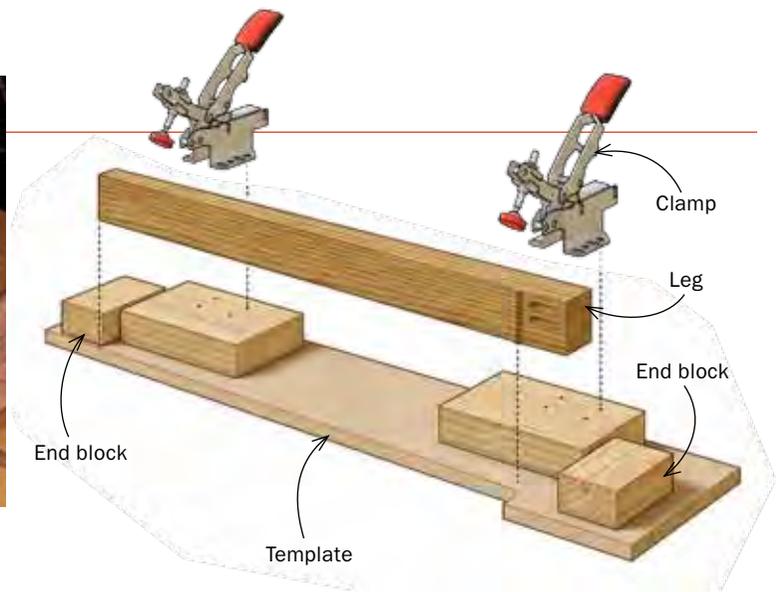
The base of the sideboard is simple, consisting of four rails and four tapered legs, but achieving simplicity sometimes requires careful work. Here, the transition from the base's rails to its legs is softened with a gentle arc and secured with a small miter, which minimizes short grain. This is a Barnsley joint, named for the British furniture maker Edward Barnsley, and making it well takes some care.

I do the joinery in the base—cutting mortises for Dominos and making the small miters and recesses of the Barnsley joint—while the parts are still square. To create the Barnsley joint, the rail needs to be inset slightly into the leg. After making the small miter cuts in the legs and rails at the tablesaw, I raise the blade to 90° and put the leg in a tenoning jig to make the shallow recess for the rail. At this point, the base can be dry-assembled using Dominos to ensure everything lines up.

Next, to get clean tapers and curves on the legs and rails, I create routing templates and attach stops and hold-downs to them. After bandsawing the curves and tapers on the legs and rails, I flush-trim



Leg tapers: Bandsaw first, then into the jig. Gochnour rough-cuts the leg taper on the bandsaw, then finishes it in a jig on the router table. The base of the jig is a template of the taper and also creates the curve at the Barnsley joint.



Rails ride a jig, too. Gochnour uses a second jig, this one with curves at both ends, to shape the rails. The long front and rear rails just fit between the jig's end blocks; the short rails are clamped at one end of the jig, and flipped end for end to cut the second curve.



them to final shape with the templates on the router table. Alternatively, you could simply clean up the bandsawn parts with planes, shaves, and files.

Once the legs and rails are shaped, the base can be glued together. I glue each end independently and then, after the glue has set, complete the assembly by gluing the two ends to the front and back rail. □

Chris Gochnour makes furniture in Salt Lake City, Utah, and teaches locally and across the country.

Online Extra

Watch an interview with Chris Gochnour at FineWoodworking.com/277.



Assembly: Short rails first. Gochnour starts assembling the base by gluing the legs to the short rails. He pulls the Domino joints home with a pipe clamp, then uses F-style clamps to make sure the Barnsley joint miters are tight. When the glue cures, he connects the end assemblies with the long rails.