

Small Chest of Drawers

Understated dresser has clean lines and simple, smart joinery



BY TIMOTHY ROUSSEAU

Every June there is a faculty show at the Center for Furniture Craftsmanship in Maine, where I teach. I've learned that the furniture I make for the show should be something we could use in our home, in the event that no one purchases it. That's how this ash dresser came to be.

I made the drawers deep enough to fit my jeans and sweaters, and sized the case to fit perfectly in a spot

in our bedroom. That dresser sold right away. But I really liked it, so I built another one for myself, plus one for each of my sons. The dresser's uncomplicated, crisp lines and lack of ornamentation really define its style, allowing it to fit quietly and beautifully into just about any bedroom.

Because time was tight before the show, I wanted the chest construction to be straightforward and fast. The

TIMELESS STYLE, SMART CONSTRUCTION

Clean, elegant lines never look dated, so this dresser won't lose its appeal. And it won't fall out of service either, because it's held together by bombproof mortise-and-tenon joinery.

Divider, $\frac{13}{16}$ in. thick by 1 in. wide by $9\frac{1}{8}$ in. long, including $\frac{5}{8}$ -in.-long tenons

Tenon, $\frac{13}{16}$ in. thick by $\frac{5}{16}$ in. wide by $\frac{5}{8}$ in. long

Tenon, $\frac{5}{16}$ in. thick by 1 in. wide by $\frac{5}{8}$ in. long

Runner/kicker, $\frac{13}{16}$ in. thick by 2 in. wide by $14\frac{13}{16}$ in. long, including tenons

Tenon, $\frac{5}{16}$ in. thick by $1\frac{3}{8}$ in. wide by 1 in. long

Slide bottom apron into slots after case is glued together.

Bottom, $\frac{13}{16}$ in. thick by $17\frac{1}{8}$ in. wide by $31\frac{3}{8}$ in. long, including tenons

Web frame rail, $\frac{13}{16}$ in. thick by 2 in. wide by $31\frac{3}{8}$ in. long, including tenons

Bottom apron, $\frac{13}{16}$ in. thick by $1\frac{5}{8}$ in. wide by $31\frac{3}{8}$ in. long, including tenons

Top, $\frac{13}{16}$ in. thick by $17\frac{1}{8}$ in. wide by $31\frac{3}{8}$ in. long, including tenons

Back rail, $\frac{13}{16}$ in. thick by 2 in. wide by $28\frac{1}{2}$ in. long, including tenons

Center mullion, $\frac{13}{16}$ in. thick by 2 in. wide by $28\frac{3}{8}$ in. long, including tenons

Back panel, $\frac{3}{8}$ in. thick by $13\frac{1}{8}$ in. wide by $27\frac{9}{16}$ in. long

Tenon, $\frac{5}{16}$ in. thick by $1\frac{3}{8}$ in. wide by $\frac{3}{4}$ in. long

Back stiles, $\frac{13}{16}$ in. thick by 2 in. wide by $31\frac{3}{4}$ in. long

Groove, $\frac{1}{4}$ in. wide by $\frac{5}{16}$ in. deep

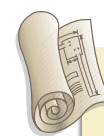
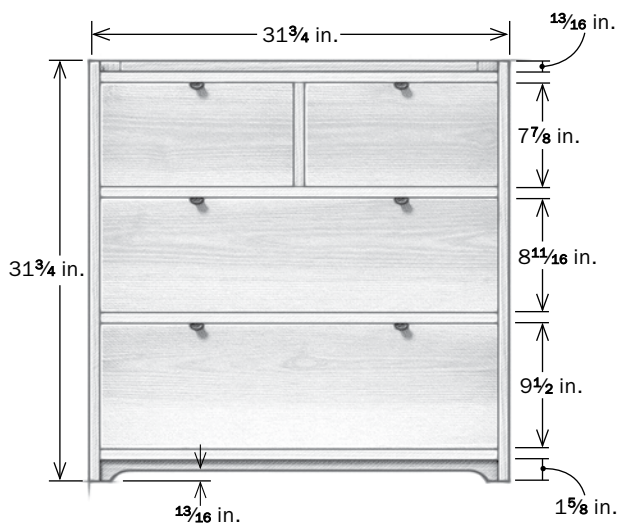
Tenon, $\frac{3}{8}$ in. thick by 1 in. wide by $\frac{5}{8}$ in. long

Haunch, $\frac{1}{4}$ in. long

Tenon, $\frac{3}{8}$ in. thick by 1 in. wide by $\frac{5}{8}$ in. long

Rabbet, $\frac{1}{8}$ in. deep by $\frac{3}{8}$ in. wide

Side, $\frac{13}{16}$ in. thick by 18 in. wide by $31\frac{3}{4}$ in. long



To purchase expanded plans and a complete cutlist for this dresser and other projects, go to FineWoodworking.com/PlanStore.

Case construction

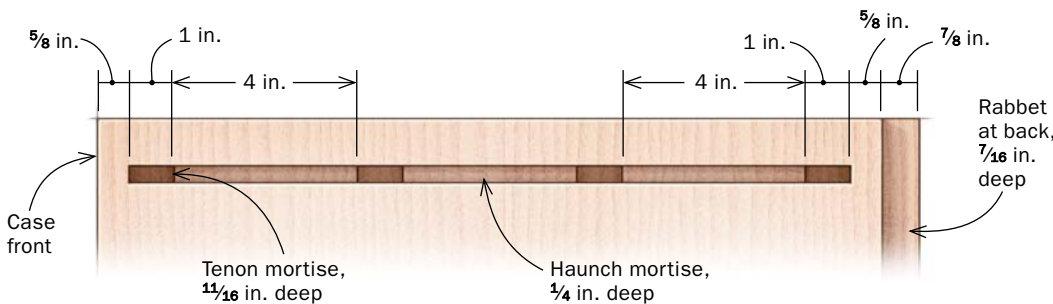
MORTISE THE CASE SIDES



The housed mortise-and-tenon has several evenly spaced tenons connected by a stub tenon, or haunch. Rousseau uses the same jig to cut both the deep and shallow mortises.



Two fences are better than one. Rousseau's mortising jig features parallel guide rails that prevent the router from wandering. A notch routed in a sacrificial fence face (use the same bit you'll use for the mortises) makes it easy to align the jig with layout lines (right).



case is 18 in. deep, and dovetail joinery at the corners would have taken forever to cut, so I chose what I call a housed tenon joint instead. This joint features a series of tenons connected by a haunch, all of which are housed in a wide mortise routed in the case side. It's a strong joint that's quick to make.

The web frames between the drawers are attached to the sides with double mortise-and-tenons. This looks like an intimidating joint to make, but I'll show you a simple, fast method using a router and bandsaw.

Case joinery comes first

The housed tenons that join the top and bottom to the sides are not difficult to make. To make the mortises for them, I use a router and a straightedge jig with two par-



Deep mortises first. Plunge to full depth at each end of the mortise, and then use two passes to rout out the waste in between (left). Then rout the haunch mortise (above), getting to final depth in two passes.



Square them up with chisels. The tenon and haunch mortises all get the chisel treatment, which is faster and easier than rounding over the tenons.

TENON THE TOP AND BOTTOM

Use a rabbeting bit to cut the cheeks quickly, then form the tenons by cutting out the waste between them.

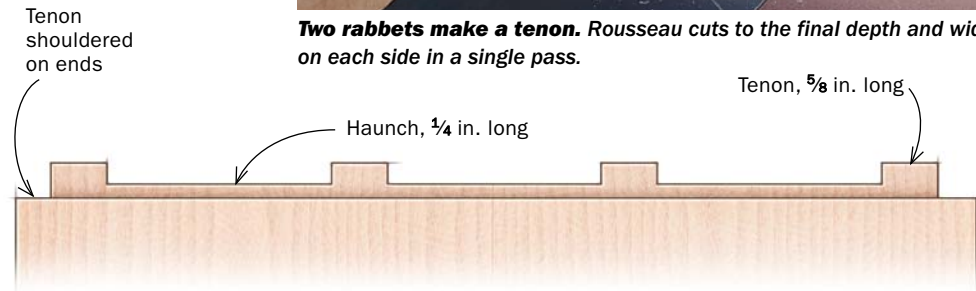


Two rabbets make a tenon. Rousseau cuts to the final depth and width on each side in a single pass.

allel guide rails. The router rides between the rails, which keeps it cutting in a straight line so you won't have any wavy mortises.

There are three things you should do to optimize the straightedge jig. First, attach an auxiliary face to the jig's fence. Then, before you use the jig on the case sides, rout through the face with the same bit you'll use for the mortises (a 3/8-in.-dia. spiral upcut bit). The "kerf" cut in the auxiliary face shows you exactly where the router will cut, and that allows you to set up the jig with much greater precision.

Second, after you have clamped down the jig with one clamp, make sure that the guide rails are parallel



Transfer the mortises. Pressed against the mortise's wall, the blade of a combination or try square shows where to mark for the tenon width.



Saw down to the haunch. Use a backsaw to define the tenons, then cut the haunch at the bandsaw.

Remove the waste between the tenons. After making an angled cut to remove the waste between tenons, use the bandsaw fence to guide the cut that defines the haunch's top edge.



to your layout lines. I use calipers for this. Finally, clamp down the jig and workpiece securely to your bench so they don't move when you are routing.

I rout the deep mortises first, and then the shallow one that connects them. I don't worry about getting the mortises' length perfect, because the tenons will be marked directly from them and then cut to fit. After I've routed the mortises, I move to the router table to rout a rabbet on the back edge of each side for the frame-and-panel back.

Finally, I cut the tenons on the top and bottom, also on the router

Web frames

TWIN MORTISES

Two tenons offer more insurance against racking than one. To ensure precision when routing the mortises, Rousseau uses a set of stop blocks.



STOP BLOCKS WORK WONDERS

Use stop blocks to control the mortises' length. Hold them in place with double-sided tape.

Tape down stop block flush against router base.

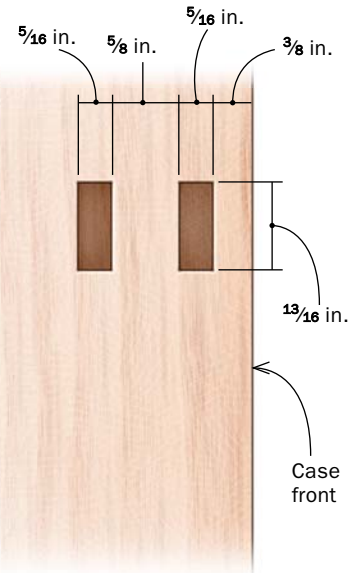
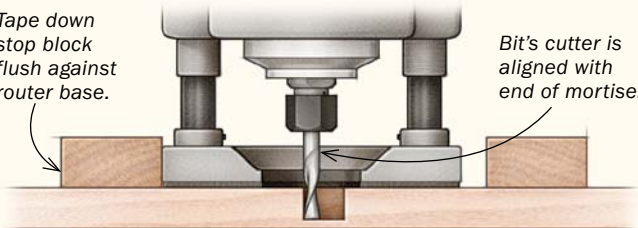


table. I remove the waste between the tenons using a bandsaw, and do the final fitting with hand tools. Here's a tip: Rip the top and bottom to final width after you've routed the tenons. This way, any tearout caused by the router bit will be cut off.

Double tenons aren't twice as hard

The web frames that create the drawer pockets have a front and back rail that connect to the case sides with double mortise-and-tenons. The trickiest part of this joint is getting the space between the tenons to match the space between the mortises perfectly. Fortunately, I have a technique that eliminates all of the hassle.

At the heart of my method is a spacer. I rout the first mortise using the tool's edge guide to control the cut. I then attach a spacer to the edge guide with double-sided tape and rout the second mortise. The same spacer is used at the bandsaw to set the distance between the two



Inside mortise first. Set the edge guide (no spacer yet) so that the bit is located to rout the mortise farther from the edge.

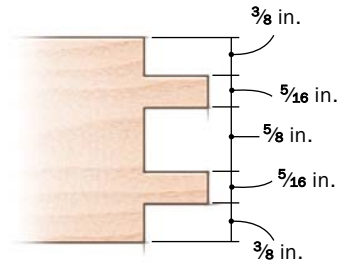


Add a spacer for the second mortise. The spacer's thickness equals the distance between the two mortises plus the bit's diameter. Attach it with double-sided tape.

DOUBLE TENONS

After cutting the shoulders on the tablesaw, cut the cheeks on the bandsaw. Set the bandsaw's fence to cut the cheek farthest from the fence and then leave it there. A pair of spacers moves the workpiece away from the fence for the remaining cheek cuts.

The first cut.
Clamp a stop to the bandsaw table so that every cheek cut stops right at the shoulder.



tenons. A second spacer is used to control the tenon thickness. As a result, the tenons fit perfectly into the mortises right from the saw. The tenons do not have top and bottom shoulders, so I tape stops to the case side when routing the mortises to prevent mortises that are too long.

After all of the case joinery has been cut, I make the feet by band-sawing away the waste and then routing them flush to a template.

The web frames and back are much easier to make, as all of the joints are single mortise-and-tenon. However, keep in mind that the case sides can expand and contract quite a bit throughout the year. To accommodate this movement, glue in the front tenon only, and let the tenon at the back of the runner float in the mortise.

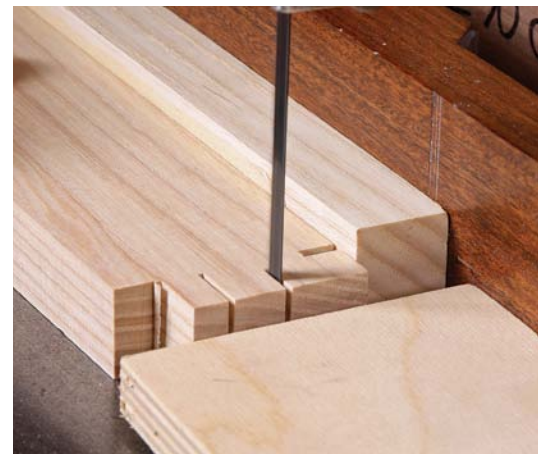
Assembly is straightforward

The simplest and least stressful way to glue up this dresser is to glue up the web frames first. Next, glue together the parts that form the top row of drawers: the top web frame, the case top, the vertical dividers, and the runner and drawer guide.

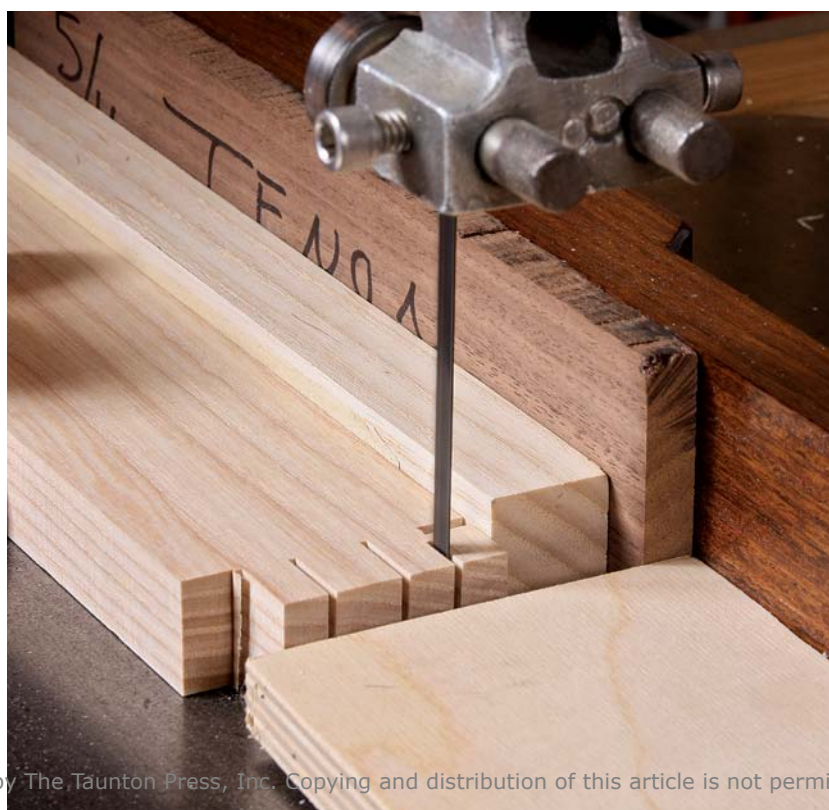
After the glue has dried, you can glue together the entire case. I do this last step on some low sawhorses. I place one side outside face down and glue in one part at a time. I then spread glue on all of



Add a spacer for the second cut. This "tenon" spacer is as thick as the tenon, plus the blade's kerf.



The router spacer cuts the third cheek. It determines the space between the tenons, just like it did the space between the mortises. Make sure the double-stick tape is still in place.



Use both spacers. When paired, they align the workpiece for the final cheek cut.

Assembly

START FROM THE INSIDE

When it comes time to glue up the case, use a glue with a long open time, such as Titebond Extend, to reduce the stress.



Begin with the web frames. Only the joints at the front get glue. The back joints float to accommodate wood movement.



Add dividers. Putting the drawer dividers in place at final assembly would be nearly impossible.



One side at a time. Leave the joints for the second side dry until you have all of the joints on the first side together.

the joinery for the second side and set it in place. Clamping up a wide cabinet like this can be tough. To simplify the job and spread pressure evenly over the joints, I use cauls to reduce the number of clamps I need for each joint.

After gluing together the case and screwing the back in place, make and fit the drawers. The fronts are ash, and I used walnut for the sides, back, and bottom. I like the contrast between the pale cream of the ash and the rich brown of the walnut. I made the pulls (see opposite page) from some rosewood I've had stashed for many years. Cocobolo would be a good substitute. □

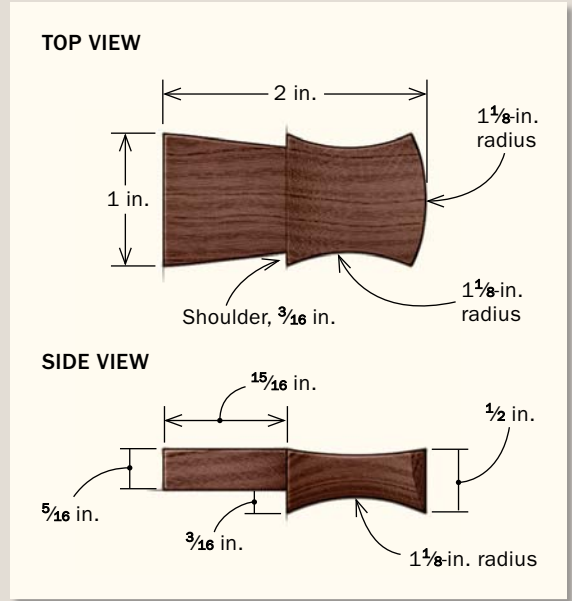
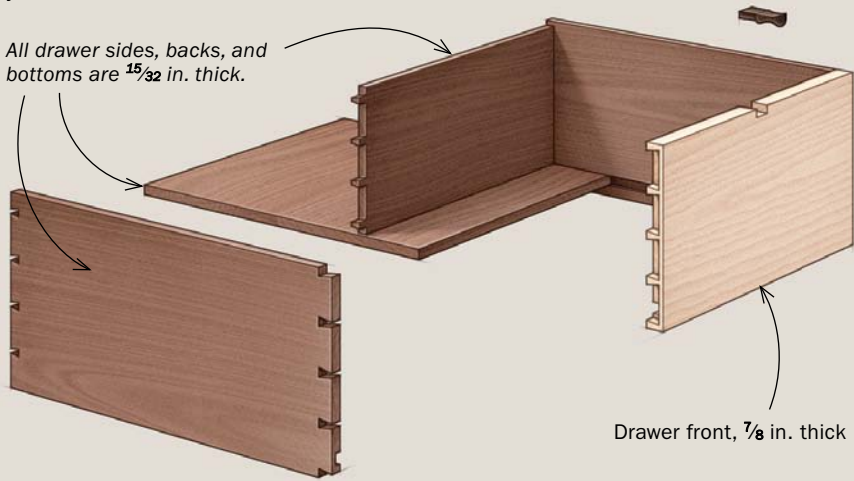
Timothy Rousseau, who lives in Appleton, Maine, is a professional furniture maker and teaches at the Center for Furniture Craftsmanship in Rockport.

Clamp up with thick cauls. Rousseau's cauls don't have a curved clamping surface, but they are thick, so they spread pressure across the entire joint.



Dovetailed pulls are a perfect detail

Small and shaped with comfortable curves, these pulls are easy to grip, and the dovetail anchoring them to the drawer fronts will stand up to years and years of use.



Cut the tail. After laying out the pull on a blank, Rousseau uses a jig sloped the same angle as the tail to cut the sloped sides. Begin the rabbet under the dovetail at the bandsaw, too.



Clean up. After removing the tail and rabbet waste, pare down to the shoulder line.



Clean up with a sander. After removing most of the waste at the bandsaw, Rousseau finishes shaping and smoothing at his shopmade spindle sander, which spins on his lathe.



Lay out for the socket. In addition to transferring the tail's sides (left), also mark the socket's depth to match the tail's thickness. Remove the waste (above). Kerfing the waste between the cuts that define the socket's walls makes it much easier to chop out the waste. To avoid blowing out the corners on the narrow side, work toward the wider side of the socket.



Clamp down. To prevent damage to the pull or drawer front, use a caul above the pull, and clamp to the bottom of the bench.