

American Cabinet

BY TROY SEXTON

Besides a table and chairs, no piece fits the dining room better than this quintessentially American country-style cabinet with storage behind doors and a flat surface for serving food. This project fills both needs perfectly and is a study in simple construction. Build a face frame, attach that frame to a four-panel carcass, then add a top and a few simple details and you're set to store and serve.

Start the Cabinet Face First

Prepare the face-frame pieces according to the cut sheet, but add $\frac{1}{16}$ " to the width of the stiles so they can be trimmed flush to the frame later. This ensures the assembled face frame overhangs the case when following the cut sheet. Locate and lay out the mortise-and-tenon locations on the rails and stiles.

Because a bead wraps around the inside edges of the face frame (it's not an integral part of the frame) there is no need to leave shoulders on the tenons. In fact, with the center and upper rails being narrow, I like to use the entire width of the rails as a tenon, which adds strength. The mortises are $\frac{3}{8}$ " wide and $1\frac{1}{16}$ " deep.

Cut the mortises into both stiles of the face frame. I use a dedicated mortise machine for

Satisfy a need for household storage without sacrificing valuable shop time.

this task, but you can also chop them by hand or use the drill press to start the mortises then square and clean out the slots with a chisel. The mortise for the top rail is open on the top edge of the stiles. These are the only mortises for the project.

Next, create the matching tenons on the ends of the rails. I set up a dado stack and hog

away the waste material, leaving a snug-fitting tenon. With these tenons, because they are the width of the rails, cut only the face cheeks of each end.

Set the dado stack for a $\frac{3}{16}$ " deep cut. Set the fence to create a 1"-long tenon, then make passes for each face to form the tenon. The last pass is with the end of the rail tight against the fence. This ensures that all tenons are the same length. And that extra $\frac{1}{16}$ " of depth in the mortise is just a glue reservoir.

Check the fit of the first tenon and make any necessary small adjustments. Finish the tenons and assemble the face frame. Apply glue in the mortises and on the tenons then add clamps and allow the glue to dry.

Wrapping Up the Frame

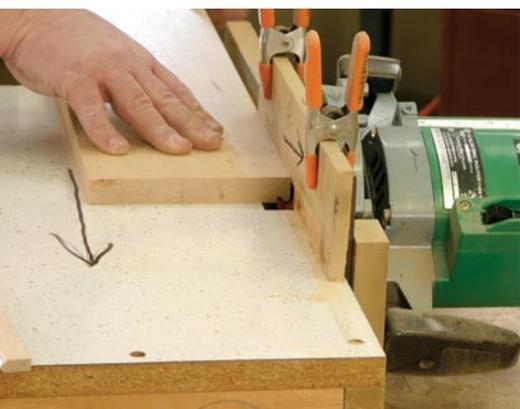
The added beading gives the face frame a "pop" and is so simple to make. Start with a piece of stock surfaced on four sides and milled to $\frac{3}{4}$ " thick. Next, chuck a $\frac{1}{4}$ " corner-beading bit into the router table. My setup looks different because I position my router horizontally. With the setup in a standard router table you'll run the stock vertically to form the bead.

Run the profile on both edges of one face of the stock and rip those pieces off at the table saw to a $\frac{5}{16}$ " width. Then, after running the edges over the jointer to get a clean surface, it's back to the router table to make two more pieces. Make enough beading to wrap the door and drawer openings.

Before adding the bead, finish sand the face frame. If you do more than touch up the face frame by sanding after the bead is in place, you'll flatten the bead profile.

The beading is mitered to fit into the corners. The miter saw is the best tool for the job. Cut the pieces so they need to be bowed out just a bit in order to fit them in place. Too tight a fit won't work and too loose makes the job look sloppy.

With the bead pieces cut to fit, add a thin line of glue along the beading (the edge with saw marks) then tack the bead in place with



A smooth face. Flatten the edge of the stock with a handplane or jointer before milling the bead. This guarantees a "show" face on the bead. Make certain to install the smooth face outward.



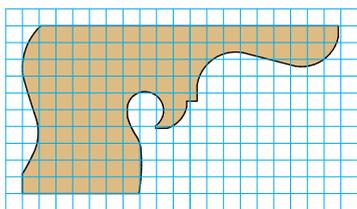
Adding a "pop." The bead is installed into the openings in the face frame. Careful measurements are key to a proper fit while glue and brads hold the bead in place.



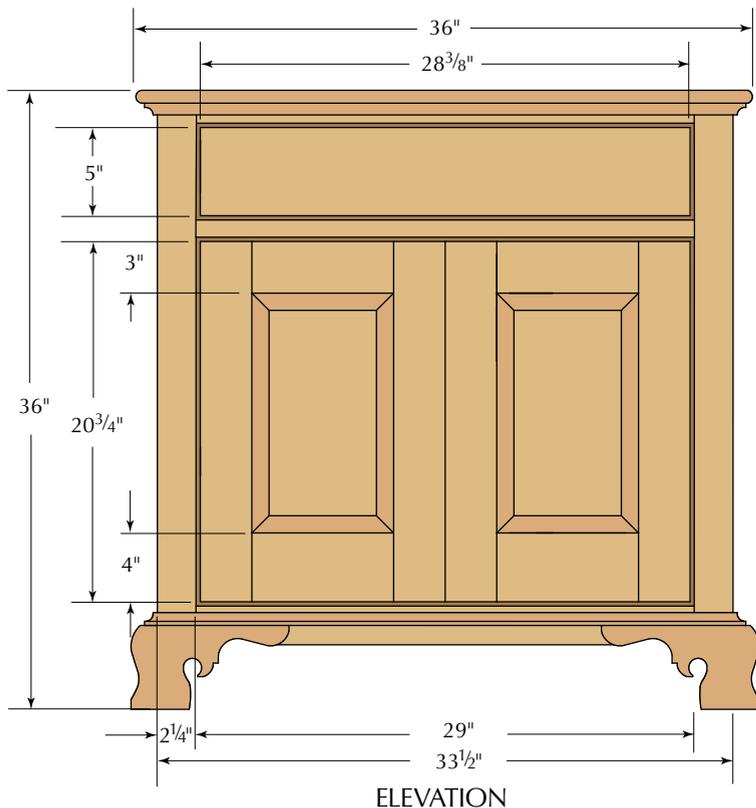
Easy on the eye and simple to build. Combine a face frame with a bead detail and simple case construction to build a cabinet that affords copious amounts of storage and easily fits into many places in the home.



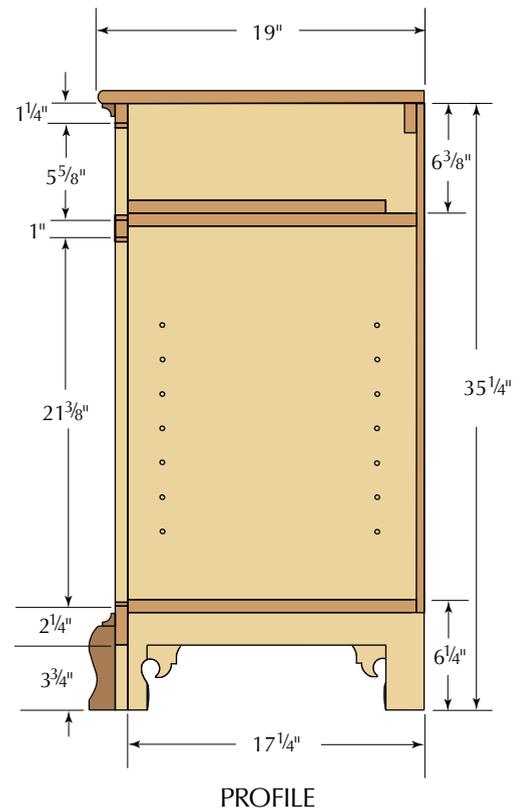
Spring tension. If the fit is correct, you should need to bow the bead in order to slide the piece into the face frame.



1 grid square = 1/2"
FOOT PROFILE



ELEVATION



PROFILE

small brads. The brads act as clamps until the glue sets.

The Case is Nailed

Begin the carcass by milling to size the panels for the sides, fixed shelves, adjustable shelf and the top. That's a good amount of work, but they are the only panels needed for the cabinet. You could forego the milling for the top and adjustable-shelf panels at this time if you want to divide the job. These two panels are needed later.

At the table saw, set a dado stack for a 3/4"-wide x 1/4"-high cut. Position the fence to cut dados in the side panels for the fixed shelves. Locate the fence so the top face of the bottom panel ends up a 1/4" above the top edge of the bead on the lower face-frame rail (the 1/4" step acts as a door stop). Then set the fence so the top face of the top shelf is flush with the top edge of the bead on the face frame's middle rail. Gather these measurements from your assembled face frame.

Once the dados are cut, add an auxiliary fence to the table saw and bury the dado stack 1/4" into the extra fence. The 1/2" that's exposed is the amount needed for the rabbet that will house the cabinet's backboards. Rabbet the back edges of both case sides.

Before starting any assembly, drill 1/4" holes for the adjustable shelf. I have a jig for this task,



No time to spare. To keep the glue from running out of the dado joint you'll have to move quickly. Any hesitation with the case side inverted results in a lengthy glue clean-up.

but I've seen woodworkers use pegboard and a 1/4" drill bit, too. Clamp your hole-drilling jig against either fixed shelf, but make sure to use the same shelf throughout the process; that keeps the holes aligned. I place the holes 2" in from the front edge and the same distance in from the rabbet at the back edge.

With the adjustable-shelf holes drilled,



A simple connection. What could be easier than connecting the sides to the shelves with brads? Drawing a line at the center of the joint provides a nailing location and translates into efficient work.



Get your face on. Check the fit of the face frame. If everything is correct, add a bead of glue to the case's front edge and position the frame on the case. You can add clamps if you like, but brads should hold the frame tight.



Trimming the fat. The extra $\frac{1}{16}$ " added to the face frame stiles ensures the frame overhangs the sides of the case. Any remaining material must be removed. A flush-trim router bit with a bottom-mount bearing is the perfect solution.

it's time to assemble the case. Place a bead of glue into the dados of one case side before slipping the fixed shelves into position. Now comes the tricky part of the case construction. Add glue into the dados of the second case side and position the shelves so they slip into those dados. This is tricky because you

need to get the joint assembled before the glue drips from the dados.

Align the shelves flush with the front edge of the case sides. Use a framing square to mark the location of the center of the shelves on the exterior of the sides, then with a brad nailer add five $1\frac{1}{2}$ " brads through the case sides

and into the fixed shelves. Flip the case then install brads in the opposite side.

Putting a Face to the Cabinet

Dry-fit the face frame to the case checking both for overhang at the sides and that the fixed shelves line up with the beaded rails. If everything's a go, add a bead of glue to the front edge of the case then carefully position the frame. Tack it to the case with brads, again making sure to align the shelves to the rails. Allow the assembly to dry.

The next step is to trim the face frame to the case. This is where having the extra $\frac{1}{16}$ " on the frame makes life simple. Use a router with a flush-trim bit to flush the frame to the sides. I always climb-cut (work against the rotation of the router bit) as I trim. The last thing you want to have happen is to catch the grain and rip the face frame causing irreparable damage.

If you haven't milled the top to size, now's the time. With the top prepared, use a $\frac{3}{8}$ " roundover bit to profile the front and ends of the panel; shape both top and bottom. Take time to sand the edges before affixing the top to the case. Then, position the top on the case so that there is equal overhang on either end and the top piece is flush at the back. This time use a 2" brad through the top and into the sides and front top rail. A small bead of glue along the front rail reinforces the joint.

Flip the case onto the top to install the $\frac{3}{4}$ " x $\frac{3}{4}$ " cove moulding. Make enough for the

American Cabinet

NO.	ITEM	DIMENSIONS (INCHES)			MATERIAL	COMMENTS
		T	W	L		
□ 2	Face frame stiles	$\frac{3}{4}$	$2\frac{1}{4}$	$35\frac{1}{4}$	Cherry	
□ 1	FF top rail	$\frac{3}{4}$	$1\frac{1}{4}$	$31\frac{1}{8}$	Cherry	1" tenon both ends
□ 1	FF middle rail	$\frac{3}{4}$	1	$31\frac{1}{8}$	Cherry	1" tenon both ends
□ 1	FF bottom rail	$\frac{3}{4}$	$2\frac{1}{4}$	$31\frac{1}{8}$	Cherry	1" tenon both ends
□ 6	FF bead stock	$\frac{5}{16}$	$\frac{3}{4}$	30	Cherry	
□ 2	Sides	$\frac{3}{4}$	$17\frac{1}{4}$	$35\frac{1}{4}$	Cherry	
□ 1	Top	$\frac{3}{4}$	$19\frac{1}{4}$	36	Cherry	
□ 2	Fixed shelves	$\frac{3}{4}$	$16\frac{3}{4}$	$32\frac{1}{2}$	Poplar	
□ 1	Adjustable shelf	$\frac{3}{4}$	$16\frac{1}{2}$	$31\frac{3}{4}$	Poplar	
□ 3	Door stiles	$\frac{3}{4}$	3	$20\frac{3}{4}$	Cherry	
□ 1	Door stile (wide)	$\frac{3}{4}$	$3\frac{1}{2}$	$20\frac{3}{4}$	Cherry	
□ 2	Door top rails	$\frac{3}{4}$	3	9	Cherry	Cope/stick joint
□ 2	Door bottom rail	$\frac{3}{4}$	4	9	Cherry	Cope/stick joint
□ 2	Raised panels	$\frac{5}{8}$	$8\frac{7}{8}$	$14\frac{1}{2}$	Cherry	
□ 1	Drawer front	$\frac{3}{4}$	5	$28\frac{3}{8}$	Cherry	
□ 2	Foot stock	$1\frac{1}{4}$	5	30	Cherry	3 feet per piece
□ 1	Moulding stock	$\frac{3}{4}$	5	30	Cherry	All cove mouldings
□ 1	Cleat	$\frac{3}{4}$	$1\frac{1}{2}$	32	Poplar	Attach to underside of top
□ 2	Drawer guides	$\frac{1}{2}$	$\frac{3}{4}$	17	Poplar	
□ 1	Back	$\frac{1}{2}$	33	$29\frac{3}{4}$	Poplar	Shiplapped boards
□ 1	Thumb-turn	$\frac{1}{2}$	$\frac{3}{4}$	$1\frac{3}{4}$	Cherry	

transition moulding for the base at the same time. Finish sand the intersection of the case to the top before adding the cove; you won't be able to get to this area easily after the cove is in place. Fit the moulding to the case with miters at the corners, then attach it to the case with brads. A bit of glue along the front and the first 4" back on each side adds strength as well as keeps the miters tight. At this time, add a cleat for the backboards. It is attached to the underside of the top and flush with the rabbets in the sides.

Fascia Feet

The ogee bracket feet are a facade. They are fit to the cabinet and look great, but they do not carry the cabinet's weight. Instead hold them slightly off the end of the face-frame stiles and the ends of the case sides as they're installed. If you want to simplify the building process even more, use a bracket-style foot in place of the ogee. Both designs work identically.

If you plan to forge ahead and create the ogee feet, begin by laying out the profile on the ends of the stock. Next cut a cove at the table saw just as you would to make a piece of cove moulding. Match the size of the cove to the foot profile. (For more information on making ogee bracket feet, see Lonnie Bird's article in the August 2005 issue, #156.)

With the cove profile complete, place the stock at the table saw fence with the top edge on the table. Adjust both the fence and the angle of the blade to remove as much of the profile of the curved top edge as possible without touching the lines. Make a couple passes adjusting the fence to remove more waste material with each pass. From here you should be able to finalize the shape of the feet with a rasp or power sander.

Supplies

Woodworker's Supply

800-645-9292 or woodworker.com

2 ■ Amerock non-mortising hinges
#891-749, \$3.69

1 bag ■ plated steel shelf pins
#857-330, \$4.09

Horton Brass

800-754-9127 or horton-brasses.com

1 ■ cupboard turn
#H-97, call for pricing

1 ■ solid brass knob
#P-97, call for pricing

Prices correct at time of publication.



Make cove moulding safely. The small cove moulding is made using a wide board at a router table. Next, rip the moulding to its final width at the table saw. Fit the cove to the case then attach with brads.

Next, cut the foot stock to length and create a 45° bevel on four of the pieces; you'll need two matching sets. The rear feet are simply cut square. Lay out the scrollwork on each foot, then at the band saw or scrollsaw cut to the lines and clean up any rough edges with a spindle sander or hand tools.

Adding the Feet

Position the feet on the case and remember to hold them about 1/16" off the bottom edge. You'll notice there is material showing behind the feet. Trace the profile of each foot, then remove that waste with a jigsaw. Don't worry about the look; just get the waste out of the way. All the edges are covered with the feet and the cove moulding that wraps the case.

Nail from the back of the case to attach the feet. Add glue to the miters to help hold them tight. Next, install the remaining cove moulding at the top edge of the feet. The cove is attached to the case with brads. These miters should be reinforced with glue as well.

Drawer, Doors and Back

The drawer for this cabinet is made in a traditional method. The sides join the back with through dovetails and the front is attached to the sides with half-blind dovetails. The drawer bottom is slid into grooves in the sides and in the drawer front. It is secured in the drawer with nails that extend through the bottom into the drawer back. The drawer rides on the fixed upper shelf. Drawer guides, butted to the face frame and held with brads, keep the drawer running straight.

The door joints are cut with a cope-and-stick set at my router table. The right-hand door in the photo has a rabbet cut into the rear of the left stile. That rabbet fits over a matching rabbet cut in the right stile of the left door. That stile is the 3 1/2"-wide stock.

With the door frames dry fit, measure the raised-panel openings then make two raised panels using either a table saw or router bit.



One foot at a time. Place the feet on the case and mark the profile. Cut away the waste material after connecting the top edge of the feet across the case, both front and sides. Don't be too concerned with the task; the feet and transition moulding cover any raw edges.

Check the fit of the panels then assemble the doors using glue in the rail-and-stile joint only. No glue is used in the raised-panel area. Install pegs to give the cabinet an antique look.

Once dry, carefully hang the doors to the opening with simple butt hinges. The left door is held to the case with a wooden thumb-turn located behind the right-hand stile. It catches the middle rail.

The backboards continue the bead detail from the case front. Create the shiplap joint then add the bead detail to the individual pieces. As always, I spaced the boards using Popsicle sticks and nailed them to the case – all after finishing the cabinet. The finish is a mixture of aniline dye with three coats of spray lacquer.

While this piece usually sits mainly in dining rooms, it is a great project for anywhere you need storage. If you build it, I'm certain you'll find a place to show it off and use it. **PW**

Troy runs Sexton Classic American Furniture, a custom furniture-making business in Sunbury, Ohio, and is a long-time contributing editor to Popular Woodworking magazine.

Online EXTRAS

For information on sizing drawer parts, see the video at:

popularwoodworking.com/video